Assembled Remembering: Youth and Digital Memory Practices

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Abstract

With growing digital saturation questions of how digital technologies mediate memory and how they change people's ways of remembering and collective understandings of the past, have gained great attention. However, despite the large number of works discussing the relationship between youth and digital media little has been researched about young people's role in digital memory making. Young people's lives are intrinsically intertwined with digital technologies; particularly the smartphone has become an important companion to fulfilling everyday tasks, spending time on social media, communicating with peers, gathering information and crafting online personas. Thus, large parts of young people's personal memories are made, recorded and shared digitally. Nevertheless, young people's unique contributions to collective memory, their memory practices and how these practices are informed by youth's specific relationship to digital media remain little discussed. Against this backdrop, the thesis investigates how digital media is used by young people to create, share, access and maintain memory.

This study is based on 12 months of digital ethnography working with a heterogeneous group of young people aged between 13 and 27 living in London and several German cities. The work presents emerging memory assemblages involved in contemporary memory making, revealing that non-human actors like algorithms play a crucial role in how young people's memory making is shaped. It further highlights, that digital media is neither a neutral tool for creating, sharing and maintaining memory nor does it determine how memory is made. Instead, I argue that digital media and young people co-create memory. This co-creation is marked by friction between young people's needs and the interests of large technology companies to create profitable products. The research findings illustrate this complex relationship, which is also reflected in young people's memory practices.

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Introduction

Digital media is an integral part of young people's everyday life, whose usage also entails the unconscious and conscious recording of daily activities. The increased capabilities to capture information through digital technologies have found widespread interest in the study of memory, particularly concerning questions of how these technologies change memory making and our general understanding of what memory is. Despite this intense engagement with digital media, young people and their memory practices as well as the influence their personal memory practices have on how we remember collectively have gained little attention. Hence, how young people's digital memory practices look in detail, their motivations to create digital memories and how they fit into the wider context of the current digital ecosystem needs further research.

This research aims to identify young people's digital memory practices and how their relationship to digital media affects the ways they create, share and maintain their personal memories. The introduction will present the context of the research and its placement in the EU-funded project Participatory Memory Practices – POEM. Furthermore, it will establish the research problem as well as the research aims, research questions and thesis outline.

Youth and the challenges of remembering a digital life

Youth today seem to be inseparable from their digital devices often sparking concern from adults over their sociability and potential long-term health damages. The image of a young person glued to their smartphone has become somewhat of a cultural stereotype. In public and media discussions, young people's behaviour is frequently compared to the childhood experiences of their parent generation spurring fears of a youth succumbing to digital technologies. Young people's behaviour, experiences and health are used as warning signs of increased global dependence on digital media. Terms like *early adapters* or *digital natives* frame young people as almost 'naturally' adept at engaging with emerging technologies. Youth and technology both have future-oriented connotations and instigate imaginations and visions of times yet to come. New media technologies and their impact on young people have always been a subject of controversy as fears and worries of the societal effects of technology are projected onto youth (Wartella and Robb 2008). Today, these anxieties are expressed through the narrative of an emerging generation of narcissists who are only concerned with posting selfies on social media, and who require virtual

likes for their ego. Much of this discourse is centred on potential developmental disorders. Lately, even worries that TikTok, a social media platform that has gained great popularity during the Covid-19 pandemic, might support the development of ticks and Tourette syndrome in girls and young women (Cummins 2021) were voiced. To say the least, discussions around the effects of digital media on young people's health are charged and focus on the responsibility of young individuals to curb these effects. This focus is also expressed in the heightened supervision by parents and schools over young people's digital activities. Remarkably, these discussions generally take place about young people and rarely with them. The structural issues of the current digital ecosystem have been frequently discussed in academic discourse (e.g. Gillespie 2014; Moore and Tambini 2018; Koch 2017) highlighting issues like algorithmic sorting (Seaver 2019), data exploitation (Douglas-Jones et al. 2021) and 'addictive' designs (Karagoel and Nathan-Roberts 2021) that point to the complexities of daily digital engagements. Nevertheless, concerns over young people's health are seldom translated into policy changes or amount to pressures that could evoke structural changes to address these issues.

Not all of young people's engagements with digital media are sparked by personal interest, as most are prerequisites for numerous aspects of their everyday life and future. Education, career prospects, social interactions, finding information, entertainment and administrative tasks are all linked to digital media and in many cases exclusively accessible through it. Even mundane tasks like making payments are progressively dependent on digital infrastructures. Under these developments, the myth of the digital as a virtual space separated from 'real life' is persistent, but crumbling. Much of young people's early lives is shared online, whether through their parents posting baby pictures or their own memory making when they receive their first mobile phone or create their first social media accounts. The relationship that young people have with digital media and the way wider society frames their digital engagement is important to understand how young people use these technologies for their personal memory making practices. These digital memory practices are also a source of friction as they clash with established expectations of how one ought to remember. Tensions are particularly visible in spaces formerly reserved for quiet reflections on the past and commemoration. Today, it is not uncommon to see young people in museums or at memorial sites taking pictures of themselves with famous artworks or historical statues to document their experiences and post them on social media. This new generation appears to break with established norms and values of how memories are supposed to be made and how one ought to engage with them. Such changes further lead to a rethinking within memory institutions as they

aim to integrate digital media into their public engagement to reach younger audiences (Shaw and Krug 2013). Under these developments, it is important to contextualise digital memory making to the lives young people live including the social pressures they face. Speaking with young people and observing how they use digital media in their everyday enables a dialogue about their own views on the matter. Choosing an ethnographic approach, this thesis aims to provide a more nuanced and less polarised discussion of the relationship between youth and technology.

At its core, this research is concerned with investigating the relationship between young people and everyday digital media. It is interested in how digital affordances enable or hinder youth's memory practices and how digital technologies as non-human actors affect memory making today. Digital affordances can be described as a combination of digital features and people's social response to them as well as what a feature's function is perceived to be (Smith 2021, p. 609). With the growing importance of digital media worldwide, the changes it brings to how we remember the past and what challenges might emerge from it are important. Not only is individual memory crucial for developing a sense of belonging and identity, but it also links the individual to the collective remembering that groups hold (Halbwachs 1992, 1939). Since personal memory is interconnected with collective remembrance and influenced by political changes (Pine et al. 2004) understanding young people's memory practices can implicate wider societal responses to digital technology.

Memory making with digital media is complex and most components contributing to it are invisible to humans. Identifying the underlying technological, social, material and normative elements involved in youth's memory practices can uncover this memory making assemblage. Researching these elements as interrelated supports the analysis of how and in which ways each of these components plays their role and influences each other. The features digital media provides are crucial in how memories are archived and shared today as well as how they might be accessed in the future. Furthermore, its design and features shape the manner in which memories are narrated. These narrations are becoming increasingly visual and are structured around the individual giving rise to new possibilities for speaking about one's identity. Using digital media for memory making also means that large parts of young people's lives are recorded unknowingly or unintended. Conversations with friends, shared images, social media accounts, geo-locating images and engagement with online content are all but a few examples of the forms personal digital

memories can take, as they are collected over the course of their youth.[1] The capacity to almost constantly record and store information about everyday life evokes the question of where the difference between a memory and information gathering lies. Not every photo, every image liked or text message is valued as an important memory or worth remembering at all. Investigating memory practices in connection to digital media can clarify these questions and contribute to establishing clearer conceptual definitions.

This research has been developed and conducted under the European Training Network "Participatory Memory Practices – POEM"[2]. The POEM consortium consists of seven European host institutions, involving five universities, namely the University of Hamburg where I have been based, Aarhus University, Cyprus University of Technology, University of Glasgow, Uppsala University, and two non-academic institutions Museum Europäischer Kulturen in Berlin and Ashoka UK. POEM aims to develop concepts, strategies and media infrastructures to support the envisioning of socially inclusive memory making in Europe. The project uses a relational approach to examine how such inclusive futures can be built. POEM explores this question from three angles that are organised into work packages:

- Work package 1 looks at memory institutions providing deeper insights and theoretical reflections on connectivities built by institutions.
- Work package 2 focuses on people and groups to provide deeper insights and theoretical reflection on Participatory Memory Work.
- Work package 3 investigates memory modalities to gain deeper insights into what participation enabling qualities a mediatised memory ecology can offer institutions, people, and groups.

My research is located in work package 3 and stands in close connection to POEM's aims to understand how digital infrastructures encourage or hinder participation in memory making. It looks particularly at digital affordances and the wider digital ecosystem as it influences how ordinary people engage with memory and personal memory making. In addition, I have incorporated a stronger focus on technology as non-human actors within memory making. Because

[1] Some social media features like Instagram stories or Snapchats snaps only remain online for a limited amount of time. I will discuss their implications further in chapters 5 and 6.
[2] For further information see the project website: https://www.poem-horizon.eu/

this research focuses on which role young people and their practices play in relation to digital memory, my project has a strong overlap with the second work package that investigates groups and people. Furthermore, young people's practices are used to identify memory modalities that constitute them, i.e. the modes and manners in which their memories exist. My thinking about the emerging concept of memory modalities has been greatly influenced by discussions with work package 3 members, namely Prof Isto Huvila and the POEM fellows Quoc-Tan Tran, Dydimus Zengenene and Angeliki Tzouganatou. Furthermore, my understanding was informed by conversations with Prof Dr Koch.

This research investigates young people's memory practices and the specific role digital technologies and media play in these practices. Using principles of digital ethnography, I have worked with a younger group of school children aged between 13 and 14 and a group of older participants aged 19-27. The participants of this research were living in several German cities or based in London in the UK. Moreover, several participants were part of a diaspora whose parents had migrated to Germany or the UK. Moreover, participants held different religious beliefs and came from various economic and class backgrounds. This diverse group of young people was chosen to investigate a variety of memory practices, assuming that people's backgrounds would provide some alterations to practices. Yet, similarities in memory practices are also of interest to this study as they point to and illustrate the potentially homogenising effects of digital media on memory making that are consequently shaped by digital affordances, media ideologies and norms.

The ethnographic fieldwork to this research has been partly conducted during the Covid-19 pandemic. This exceptional event deeply affected the lives of the young people I worked with as well as my own. From one day to another, everyday face-to-face interactions became a health risk increasing people's dependence on digital media across all age groups and localities. School and university classes were suddenly moved online and conducted through web applications that provided a very different form of learning. Friends and family members could no longer be seen for prolonged periods without potentially endangering each other. Young people who were already working had to reorganise their often small living spaces to work remotely from home or lost their sources of income. Since digital media was one of the rare ways of communication, young people chronicled their experiences of the pandemic online. Furthermore, social media became a way to reminisce about a time before the pandemic and exchange the desire for a return to a state of 'normality'. The pandemic has accelerated the dependence on digital media but also highlighted

how digital memory facilitates affect, comfort, close communication and connection to others.

My own training lies in anthropology, particularly digital and political anthropology, therefore I have approached my research from this disciplinary angle. The field of anthropology has joined the interest in media late (Postill 2008) but has since the beginning of the 2000s contributed various new approaches, methodologies and knowledge to the study of media and digital media. Anthropology's contributions to the study of media are promising in regard to how digital media influences people's everyday lives. In addition, the thesis draws on works from sociology, memory studies, media and communication studies as well as psychology. While transdisciplinary literature and perspectives will be discussed, my approach, viewpoint and methodology are embedded in the anthropological canon. This thesis is aimed at readers from different scholarly backgrounds and people interested in the topic of digital media, youth and memory.

Research problem

Young people today have been born into a digitalised world, that continues to be modified and reshaped around them. Because young people are treated as vulnerable, these tensions are often exemplified through their behaviour, subsequently finding expressions in young people's memory practices. The advent of digital media has promised more participation for ordinary people in public life and democratic processes. The same hopes and aspirations are applied to increasing the participation of the wider public and non-experts in collective memory making and engagement with it (Russo 2012; Light et al. 2018). While an 'ordinary person' is able to post images and speak about personal memory online, without traditional gatekeepers that might have prevented the publishing of such content, the issue is not clear-cut. Although access to the internet is becoming globally widespread because of more affordable devices and improvements to internet infrastructures, it becomes increasingly apparent that former power imbalances are not broken by digitalisation. Instead, new questions about the distribution of power arise, because digital media does not exist in a vacuum.

While initiatives to fund digital technologies publicly exist and alternatives continue to be developed, the majority of people are currently dependent on digital infrastructures owned by a few private companies. Most digital media that is used and encountered on a daily basis belongs to only five companies, namely Google, Amazon, Facebook (now Meta), Apple and Microsoft.

These monopolies are frequently referred to and abbreviated as GAFAM. For people in Europe, whether it comes to social networking, the hardware they use or how they do their online shopping, they are likely to engage with the products of these companies at some point during the day (Poell et al. 2019; van Dijck et al. 2019). This monopolisation coincides with the growing surveillance of users and the exploitation of the data they provide while using digital services and devices (Zuboff 2019). In the context of memory, issues arise as personal and collective digital remembering lies in the hands of these few commercial actors. How young people navigate these issues concerning their memories has been little discussed. As the real-life effects of digital media become ever more apparent (Lupton and Williamson 2017), we need to ask what issues might arise for future memory making and the personal memories of those who are young today. Understanding how digital media is enabling and disabling memory practices of young people can give clearer insights into the limitations of digital participation, as many processes of digital memory making are opaque.

While physical memory objects can be handed down easily from one generation to another, digital memory faces its challenges of passing on. What happens to personal memory when a social media platform seizes to exist? How can digital memory objects be passed down to future generations when technology is created and designed for short-term business goals rather than durability? How can these personal and collective memories be preserved for the future when they are not publicly owned and depend on the success of a private company? New technologies and data formats frequently emerge making older formats unreadable or their material conditions do not allow the recovery of data. In addition, growing personal digital archives complicate the manageability of personal memories as more data means a higher need for storage capacities. These masses of data are often difficult to sort for humans, leaving young people to their own devices of how to preserve their personal memories.

The lack of public or collective governance of digital media and the dominance of private technologies means that digital memory making needs to always be analysed and contextualised to the configurations of digital infrastructures and their wider socio-economic implications. The needs and wishes of young people concerning their digital lives frequently clash, with the objectives and economic interests of technology companies. Nevertheless, youth also experiment with personal solutions to overcome these limitations. In comparison to older generations, young people have lived a large proportion of their lives online. Hence, they have often seen how certain

platforms became popular and disappeared again or owned several iterations of mobile phones and smartphones. Their personal memory practices had to adapt to these digital changes. Because young people contribute to the social life of society and their societal status is ideologically linked to digital media their practices have particular value for studying digital memory. Little is known about how youth create memories online, the meanings and emotional values these memories hold, and why young people choose to share their memories online or why they refuse to do so. By utilising complex digital systems people give up a certain amount of control over their personal data and memories, in exchange for the possibilities of creating and communicating these technologies offer. Through researching the negotiations between young people and the technologies they interact with, existing frictions can be identified. The objective of this research is to identify young people's memory practices and the human and non-human actors[3] standing in relation to their practices. Understanding how digital memory making is hindered or enabled can identify the memory making assemblage emerging from these relationships. The identification and mapping of youth's contemporary memory practices are crucial in highlighting issues within these relationships from where imaginaries of future alternatives can be developed.

Research aims and research questions

This research takes a holistic approach to how digital media is involved in memory making. It investigates young people's daily engagements with digital media as these media practices are linked to emerging memory practices. This research considers the material conditions of digital memory making as an important element. While social media takes on a key role in young people's memory practices, this is not a study on memory and social media, but wider digital media including the devices young people use and the activities necessary to maintain digital memories for the future. The ethnographic approach I have chosen allows for observations about the engagement with digital media in the form of devices as well as memory making on social media platforms. By following what my participants did, the connections and flows of their memories between their devices and social media became visible. The objective was to observe and follow them instead of using predefined ideas of which platforms or devices should be included. Through

[3] Human actors include young people themselves and their peers, family, teachers and other adults in their close proximity. I also include the people who make decisions about how technologies build (e.g. CEO's of technology companies, developers, designers etc.) as human actors. As non-human actors, I address amongst others infrastructures, digital affordances and algorithms. I will speak about this more in Chapters 2 and 8.

this approach, I aimed to identify the forms memories take and the materials young people use in their memory making with digital media. The material conditions of digital media are important to understand challenges to the preservation of digital memories but also to recognise how their capacities and features shape practices. Therefore, one of the objectives of this study is to uncover the role devices play in memory making, most importantly the smartphone.

I propose that young people and the technologies they use co-create memory. This research aims to identify these co-creative practices and uncover how young people negotiate their own needs for memory making with digital affordances. The research further extends the investigation of such negotiations to issues like privacy, self-expression, identity making and mediated intimacies. The project will explore how memory is performed online and which digital infrastructures are of significance for it. Hence, my main research question asks:

a. What are young people's practices of creating, sharing, accessing and maintaining memories in connection to digital media?

The thesis also addresses two subquestions of:

b. How do the effects of digital technologies on young people's everyday lives influence their memory practices and what meanings do they attribute to these practices?
c. What media infrastructures, devices, rituals and shared practices are used by individuals to collect, maintain, access and share memories?

Through this research, I also aim to produce a typology of memory practices to aid in the interpretation of the elements found in the memory assemblage. The typology is intended as an analytical tool to underline how these elements relate to each other through memory practices. By visualising and categorising practices, I will also demarcate the memory modalities involved.

Significance of the research

Digital memory has experienced great interest and is a growing field across the humanities and social sciences. However, the role of young people in memory making has been scarcely addressed. Because of their social association with the future, youth are rarely viewed as holders

of memory (Berliner 2005a). Particularly in the field of anthropology, youth and their contributions to social life and culture have often been neglected. Instead, youth is framed as a temporary and liminal life stage signified by learning and enculturation giving young people a passive and absorbent position in cultural reproduction (Hirschfeld 2002). Nevertheless, youth are contributors to society and culture in their own right. As this research will demonstrate, young people's practices are distinct to their status as *people of becoming* (Harlan 2016, p. 3). While there is a rich literature on how young people use digital media to socialise and entertain themselves (e.g. Wilson 2006; Leurs 2015; Kontopodis et al. 2017), their contribution to how their digital usage produces personal and collective memory are less well known. The research addresses young people's memory making as a valuable contribution to social life deserving of greater attention.

The research sees digital media as an active part of how memory is shaped, without adapting techno-deterministic views. This interplay between human and non-human has been little discussed in the specific context of youth and digitally mediated memories. Therefore, this research's significance lies in its relational approach towards the elements of digital media, youth and memory together. Understanding how young people deal with the challenges placed by the current digital ecosystem and their societal status can highlight areas of friction and the strategies young people develop to overcome them. These strategies are significant to allude to and develop future alternatives to the current digital hindrances of personal memory making in connection to digital media. The focus on practices offers the potential for applications beyond scholarly discussions. It is hoped that the findings will also find interest within practical applications of school settings and memory institutions.

Overview of the thesis structure

The first three chapters of the thesis will place this study within the existing literature on digital memory and young people. They further establish my theoretical and methodological approach, which is based on relationality between human and non-human actors and principles of digital ethnography. In **Chapter 1**, I will review the literature on memory to define the approach I am taking to this multifaceted notion. The chapter provides an overview of the current state of research regarding mediated memory and the role digital media plays in the lives of young people. Based on this review, I will elaborate on the research gap this thesis aims to fill.

Chapter 2 explains how Gilles Deleuze's and Félix Guattari's assemblage theory has influenced my thinking on technology and people's relationship to it. The theoretical chapter sets up foundational approaches to human and non-human relationships and how the concept of data assemblages can be applied to mediated memory.

In **Chapter 3**, I will reflect on how I have used digital ethnography to investigate young people's memory practices and how I have constructed the field to research a heterogeneous group of participants. I will further discuss, which methods I have chosen and the challenges that arose from doing ethnographic work with young people. In addition, I will address how I have analysed the data and what ethical considerations I have made to ensure the safety of my participants.

The following four chapters present the findings of the ethnographic research and their analysis in regard to the research question. **Chapter 4** establishes the role of digital media in the everyday lives of young people. This chapter illustrates youth's relationship to digital media in various areas of their lives like education, social life and future economic prospects. The chapter highlights the emerging discourses on digital dependence and addiction, that affect how young people see their media practices and subsequently value their digital memories.

Chapter 5 explores the memory practices of young people in relation to social media. I will map out the social media landscape and how its media norms and ideologies influence young people's memory practices.

Following the memory practices analysed in the previous chapter, **Chapter 6** takes a closer look at how memory making online informs young people's identity performances on social media. The chapter further addresses issues of forgetting on social media and how the deletion of memory objects serves to construct a conform identity in the present.

Chapter 7 speaks of the materiality of digital memory practices. I will discuss the role of digital devices in memory making and how the constant production of images and other digital memory objects leads to difficulties in their maintenance.

The final chapter, **Chapter 8**, will discuss the findings in regard to the paradoxical relationship

many young people have with digital media springing from their importance in daily life. Furthermore, I will map out the memory assemblage my research has identified and connect it to the emerging concept of memory modalities. Based on the memory assemblage I will present a typology of young people's memory practices.

The thesis **concludes** by reflecting on the research and identifying areas for further research. I will examine how the current digital ecology supports or fails current needs based on participants' suggestions of how they would like to see digital media improve in the future.

Chapter 1: Personal memories, youth and digital media

The core issues of this thesis border on multiple areas of study, namely memory, digital media, practice theory and youth studies. Academic work combining these areas is scarce, which speaks for the originality of the research, but also requires a broader reading to define concepts and terms to serve this study. In this chapter, I will review literature from anthropology, sociology, media studies and psychology to provide the context of the research as well as to outline key concepts that will reoccur throughout the thesis. Arguably, the study of memory, digital media, practice theory and youth studies are complex and elaborate fields to which these disciplines have contributed diverse perspectives and unique approaches. This chapter focuses on discussing key concepts and works that have shaped my thinking and are relevant to the findings.

I will start the chapter by commenting on the rising interest in memory studies since the turn of the millennium. Following this, I will discuss the literature on collective memory, which currently dominates discussions on memory in the social sciences and humanities. Building on this, I will critically reflect on the possibilities that lie within dissolving harsh distinctions between personal memory and collective for researching and broadening the definitions of memory. The chapter will then move towards practices, particularly in relation to media. Deriving from this literature, I will define the way in which I have used memory throughout this thesis. I have adopted a more fluid approach to memory emphasising the relationality between individuals, groups and media technologies. Media and memory are intrinsically interlinked, for example, a mnemonic medium can record memories, but also randomly evoke them. This interlinkage is demonstrated by the growing literature on mediated memory involving digital technologies that will be further reviewed. The last part of this chapter addresses the lack of attention towards memory in the lives of young people. While scholars have focused on young people as "digital natives", who have quickly adopted new technologies and built subcultures around them early on, their memory practices have garnered little attention so far. It is at this intersection between personal memory, youth and digital media that I have identified a gap in the literature. Finally, I will end the chapter by outlining the contribution I aim to make to the study of digital memory.

The many faces of memory

At a first glance, the question of "what is memory" appears to be simple and straightforward.

Presumably, memory is something that we accumulate throughout our lifetimes, but it can also be reshaped, falsified or partly forgotten. As it is often a reflection of a person's experience, it is considered fundamental to a person's identity and an integral part of the human condition. Memories can be something that we cherish, something that troubles us or we do not care much about. They can be manifested and preserved through objects or be provoked by smells or sounds, which can evoke strong emotional responses. However, at a closer look the processes of memory making are intrinsic and difficult to define, partly because they often happen unconsciously and it is unclear where a memory starts or ends. In fact, memory is more than just a neurological process that stores information in a person's head. Hence, comparing it to the simple storage and processing of information, as for example a computer does, is not sufficient. Anthropologist James Wertsch (2002) describes the confusion around memory as follows:

> "It is not obvious how to catalogue all the interpretations of memory that now clutter the conceptual landscape, especially since these interpretations often exist in the form of implicit assumptions rather than explicit formulating. Differences there are, however, and they have a profound effect on how memory is discussed and how participants in this discussion understand – and misunderstand – one another." (Wertsch 2002, p. 30)

The study of memory has long been the domain of neuroscientists and psychologists (Barnier and Sutton 2008), particularly regarding personal memory where the focus is often on the accuracy of memory. Because this study focuses on personal memory, I will shortly address the approaches in these fields, as their attention to personal memory is more pronounced than in social sciences and the humanities. Furthermore, these psychological frameworks are often applied to memory making in relation to youth. In recent years, neuroscientists have noted that memory is much more similar to imagination than it is to computation. Explaining why memory is often less reliable and subject to the reshuffle of past experiences when reiterated (Schacter and Addis 2020). Similar ideas about memory have also been established in psychology. Experimental studies often suggest that social influences can reshape someone's personal memories of an event making personal memory more than an individual representation of reality since it also conforms to social coherence (Dudai and Edelson 2016). Moreover, as anthropologists have commented, a large part of our knowledge is not only based on personal experiences, but also on experiences made by others, may it be people from the past or contemporaries (Barth 2002). Nevertheless, the study in these fields, which mainly relies on a series of experiments, focuses on whether memory is accurate or if it has been falsified. Memory is also an important concept within the social sciences and humanities. However, here the focus lies more on how memory is used within social and cultural groups as opposed to the

individual and their memory-making.

The study of memory regained significant attention at the end of the 20th century, with the new transdisciplinary field of memory studies emerging from these discussions (Bond and Rapson 2014; Berliner 2005b; Lazzara 2017). Commentators even spoke of a renewed “memory boom” (Berliner 2005a; Hoskins 2014) when referring to the growing research on memory at the time. Memory studies encompasses various approaches that have substantially contributed to the conceptualisation of memory. These diverse angles, however, find their commonality in the framing of memory as an inherently social process and point out its flexibility, which distinguishes it from the popularly well-known field of history. As media and memory scholar Joanne Garde-Hansen states:

> “Consequently, if we temporarily separate the two terms then the past can be articulated as history (the writing of the past) or as memory (the personal, collective, cultural and social recollection of the past). History (authoritative) and memory (private) appear to be at odds with each other.” (Garde-Hansen 2011, p. 6)

Historians have also commented on the differences between history and memory. Historian Susan Crane (1997) mentions that history is both the past and the narratives that represent it, but history also stands in relation to the present, whereas collective memory transmits a sense of the past being continuously present (1373). Accordingly ‘history’ represents a past constructed by historians and other groups of ‘experts’, who attempt to separate the present as a means of thinking about the past, by focusing on the experiences of groups and individuals (Funkenstein 1989). Memory, when ascribed by the state and its institutions, is often used to construct a specific narrative of the nation (Anderson 2016, p. 201), which supports the crafting of histories and *invented traditions* (Hobsbawm and Ranger 1992, 1983). Nevertheless, memory and history should be thought of as interlinked, rather than opposites. These elaborations highlight and further contrast memory as a concept.

Handyside and Ringrose view memory as a “productive force” that is not a literal translation of the past as it was, but rather is experienced as individual and subjective difference. This experience is made by individuals as they transition through time (Handyside and Ringrose 2017, p. 350). In this sense, memory is always new (Hoskins 2017, p. 9). Memory is constructed and reflects in addition to the past, the present and visions of the future (Macdonald 2013). Within these

temporalities, the past is often used as an idealised representation of stability. “The good old days”, that stand in contrast to the uncertainties of the present and visions of the future (Macdonald 2013).

Memory as a collective and social process

The concept of collective memory, coined by Maurice Halbwachs, has taken a central role in the study of memory. Criticising the dominance of the individualised approach to memory in his time, Halbwachs (1992, 1939) proposed that the way memories are made by a person is closely tied to social life and interactions with others. Halbwachs argues “[…]his [the individual’s] memory cannot follow from his body, we must conclude that there is something outside his body yet nevertheless within the individual that can explain the recurrence of memories.” (170). Heavily influenced by Durkhemian thought, Halbwachs’ key argument proposes that a person’s memories are also reflections of the social groups they belong to. Depending on which group a person is affiliated with, the collective memory varies and can simultaneously overlap with other collective memories. Thus, memory is a collective framework that functions as a reference point to others, since “[…]it is in society that people normally acquire their memories.” (Halbwachs 1992, 1939, p. 38). Consequently, memory is evoked by others. Referring mainly to the family, religious groupings and social classes as distinct groups, Halbwachs notes that memory is formed in a certain social context that is specific to a group. These collective frameworks allow memories to be spatially and temporally placed. Hence, “the past is not preserved but reconstructed on the basis of the presence.” (40). In this view, the ‘accuracy’ of the past is not necessarily important. Instead, it is shifted and adapted to the current circumstances giving a particular group the means to understand their place within the collective through time and space.

While the idea of memory being held by a certain group pre-dates Halbwachs’ elaborations, his ideas on collective memory had a big impact within sciences that study humanity on a group level, like sociology or anthropology, particularly in regard to processes of enculturation/socialisation and the reproduction of social norms. Noticing limited attention towards culture, tradition and identity Jan Assmann aimed to expand the concept of collective memory. Assmann divides memory into three areas: individual memory, communicative memory and cultural memory. By breaking up collective memory into cultural and communicative memory, he emphasises the role of the cultural sphere to which he counts traditions, transmissions and transferences. For Assmann

collective memory and cultural memory are two distinguished modes of remembrance, because cultural memory emphasises the cultural sphere that has been left out in Halbswachs' writings (Assmann 2008, p. 110). He stresses the importance of symbols in cultural memory through which societies create their memories in the form of mnemonic institutions like museums, archives or monuments. Cultural memory can also exist in disembodied form, but relies on institutions for its preservation (Assmann 2008, p. 111). In his view, a person's memory only exists in relation to other human memory and "outward things" as well as symbols. Communicative memory as a variety of collective memory is exclusively based on everyday communication and constitutes the social self (Assmann and Czaplicka 1995). In contrast to the distant cultural memory, communicative memory is part of the everyday. "The communicative memory offers no fixed point which would bind it to the ever expanding past in the passing of time. Such fixity can only be achieved through a cultural formation and therefore lies outside of informal everyday memory." (Assmann and Czaplicka 1995, p. 127). Hence, while cultural memory can allow remembrance over several generations, it is the memories formed through communication between people that allow personal and collective selfhood to take shape.

However, applying the concept of communicative memory to memory made with digital media is difficult. The sharp distinction between cultural and communicative memory places mediated texts, rituals, performances and rituals into the realm of institutions. New media shows that communicative memory is also held in texts and lived through media performances as part of "lived memory". Assman's definition of communicative memory does no longer apply as everyday memory making goes far beyond face-to-face interaction. Today, almost all forms of communication are mediated (Sommer 2018). According to Assmann's ideas, everyday memory is limited to face-to-face interactions, despite media studies and anthropology showing that even before the advent of the internet, media practices played an important role in people's ordinary lives (e.g. Bräuchler and Postill 2010). In addition, Assmann's elaborations appear to mirror the division between history as the institutionalised past kept and constructed by experts versus the ordinary more fluid memory of individuals and groups. On the contrary, Halbwachs' ideas on memory are more fluid and do not sharply distinguish between memories made by an individual or a group. Instead, these two work in tandem and are interdependent. It is difficult to imagine a personal memory that comes into existence without any other person and a collective memory that is not founded on the experiences of the individuals of a group.

Personal memory and the mundanity of remembering

Personal memory is given less attention within the social sciences and humanities than collective memory (Kidd 2009). Compared to broad literature on social remembering, personal memory in anthropology and other social sciences and humanities remains ill defined. When discussing this lack of attention towards personal memory in these fields, historian Amos Funkenstein points out that "[t]his is confusing, as consciousness and memory can only be realized by an individual who acts, is aware, and remembers." (Funkenstein 1989, p. 6). Despite the importance of collective memory "[r]emembering is a mental act, and therefore it is absolutely and completely personal." (ibis). Nevertheless, as alluded to before, research on personal memory still predominantly resides in the field of psychology and is characterised by quantitative methodologies (Schuman and Corning 2014) and memory functions within people's cognition (Mace 2019). In these fields, investigating personal memory is often linked to selfhood and how people form a 'story' about their lives (Fivush 2011, 2013). Speaking about personal memory is, therefore, usually understood to be a narration of one's past. Accordingly, particular attention is paid to how memory and storytelling define or inform a person's identity. Indeed, this thesis will also discuss in Chapter 6, how social media accounts and images are used to construct a cohesive identity through memory. In addition, I have also used digital storytelling as a method, which will be discussed further in Chapter 3. Narrative identity can be seen as a form of personal memory making as people use narration to remember, speak about themselves to others and arrange memory objects to suit these narratives. Hence, I found the concept useful in framing how young people curate their social media accounts.

The concept of narrative identity, which emerged from psychology is often linked to autobiographical memory as which personal memory is commonly used in this field. The term 'autobiographical memory' hints at the importance of narration by referring to the literary genre of autobiography. The concept focuses on the life story of a person and how their past is narrated in a cohesive way to inform selfhood. "Narrative identity is an internalized and evolving story of the self that provides a person's life with some semblance of unity, purpose, and meaning." (McAdams 2011). Qi Wang and Jens Brockmeier (2002) question the universal application of autobiographical memory. The Western focus in the individual is not exclusive to these cultures, but can neither be assumed to be applicable to humanity as a whole. Thus, autobiographical memory is only one form through which individual memory and the self are formed and how the

past is remembered (Wang and Brockmeier 2002). Wang and Brockmeier highlight this by comparing how Chinese and US-American families prompt their children to recount past events. Speaking of cultural genres, where several genres of personal narratives can exist, they illustrate how within Chinese and other Asian cultures, parents emphasise personal relationships and social contexts of events when prompting their children to recount a situation. Actions of the ego were still present, but put in the background of the narrative structure. In contrast, American parents asked their children more about their own emotions, views and understandings that dominated the narrative. As Wang and Brockmeier summarise:

"In general, early memories reported by Americans tended to be voluminous, specific, self-focused and concerned with autonomy and personal predilections. In contrast, memories provided by Chinese were often skeletal, routine-related, centered on relationships and sensitive to other people involved." (Wang and Brockmeier 2002, p. 48)

Wang and Brokmeier's study remind us, that the discussions and concepts on memory, presented here so far are not universal and derived from a eurocentric view (Haripriya 2020). The way I am looking at personal memories made by German and British participants are derived and embedded from this eurocentric understanding and specific to these contexts. Making general statements about human memory making is, therefore, not in the scope of this study. However, it supports the need for further studies outside of eurocentric viewpoints.

Narrative identity highlights how difficult it is to define memory and to separate it from other broad concepts like culture and identity that hold different meanings depending on disciplinary backgrounds. Where does memory start? Where does it end? As David Berliner has pointed out memory is often used, almost synonymously with identity and culture, resulting in the usage of memory meaning everything and nothing (Berliner 2005b). While belonging and identity can be expressed through one's memory, a distinction between these concepts needs to be made. According to David Berliner, most anthropologists understand memory as a deeply social act. "Memory is not these series of recalled mental images, but a synonym for cultural storage of the past: it is the reproduction of the past in the present, this accumulated past which acts on us and makes us act." (Berliner 2005b, p. 201)

Like in Berliner's critique, memory is used to explore other concepts. Anthropological methods of ethnography and participant observations emphasise the ordinary lives of people to derive

conclusions to wider social and cultural processes from these experiences. However, the focus on memory in anthropology is often placed on large-scale events affecting a whole country, ethnicity or geographical region. These memories are frequently placed around traumatic events (e.g. Argenti and Schramm 2010), wars (e.g. Shaw 2007), genocides (e.g. Moradi et al. 2017) or transitions after violence or regime changes (Kent 2011; Pine et al. 2004). These works, as vital as they are, often focus on how these events can be expressed in everyday forms of memory making or how they have become part of commemorations and reconciliation processes. Although there have been interesting sensory approaches to memory, like connecting food to memory making (Holtzman 2006) mundane memories or autobiographical memories have garnered less attention. Looking at personal memories allows to create an overview and more nuances to how people approach memory in that everyday. Moreover, subjective understandings can provide more context to underlying complex processes and social frameworks.

As demonstrated, the distinction between collective and personal memory is still very much reflected within scholarly work. As Russell (2006) mentions, distinctions between collective and individual or personal memory are often simplified iterations of one concerning the memory of one person and the other comprising the memory of more than one person. Anthropologist James Wertsch (2002) emphasises that this distinction mainly serves disciplinary territorialisation and simplifies the complexities of memory making. As alluded to, individual memory remains social also as it operates through the cultural construction of language and is activated via social stimulation, rehearsal, and culturally structured patterns of recall (Schudson 1997). Whether personal or collective, memory is malleable and can be reshaped by acquiring new information or losing previously held information. In any case memory remains a dynamic process (Sommer 2018). I therefore, argue that the case for personal memory lies not in separating it from social memory, but rather as an illustration of how memory is practiced in the everyday. Andrew Hoskins proposes to treat memory as a “connection between the individual and the collective, rather than attempting to establish its location in either domain” (2016, p. 348). This connection, as identified by Hoskins, forms the basis of how I will apply memory throughout this thesis.

The discussions of the literature above demonstrate that much of the understanding of what memory is depends on the disciplinary formation of its authors. A narrow definition of memory is thus not possible. Instead, memory comes in many facets that are often context-dependent. Treating memory as a connection allows to analyse how individuals remember on their own terms,

while being part of wider groups and societal discourses. A focus on personal memory also emphasises the importance of practices and how memory is communicated to others. Highlighting individual or autobiographical memory allows to access the situatedness of these practices within social norms and belief systems specific to the contexts of people's life worlds. Practices on an individual basis can highlight their variety and aids to identify commonalities and differences. Therefore, a focus on practices (e.g. sharing personal photographs on social media or through cloud services) can provide insight into connections between collective and personal memory rather than their constructed separation.

Memory practices and everyday media

One way to investigate how personal memory is made in relation to digital media could be to look solely at memory objects themselves. While this approach can deeply dig into internet culture and crucial topics surrounding it, it is limited in exploring implications for people's offline lives. Practices embed memory in the everyday and can provide an alluding approach to researching how digital memory is made, what distinguishes it and what meanings and values are being ascribed to it. A practice-based approach can also avoid an imposing view and grounds memory in people's life worlds. Practice theory has emerged from Pierre Bourdieu's work, which placed a particular focus on the role of everyday life in the reproduction of power relationships. Practices are expressions of collective rules and social order within subjective acts of individuals, thus the individual and society are not opposed to each other but working together. It is not necessarily the obedience to rules that creates this interplay, with the collective dominating the individual, but rather the individual reproducing these collective norms subconsciously (Bourdieu 2013, 1977). Using the term *habitus* Bourdieu described how subjective behaviour is influenced by learned and internalised expectations:

"The habitus, the durably installed generative principle of regulated improvisations, produces practices which tend to reproduce the regularities immanent in the objective conditions of the production of their generative principle, while adjusting to the demands inscribed as objective potentialities in the situation, as defined by the cognitive and motivating structures making up the habitus." (Bourdieu 2013, 1977, p. 78)

A person's position in society entails a range of behavioural option for said individual. Looking at practices can support the exploration of how wider societal and cultural ideas are internalised and also how individuals often unwittingly reproduce them through their practices. When looking at

what individuals do we can also see how they reproduce narrative conventions within their recollections of the past. Moreover, we can see which practices are common and how sociocultural patterns are being embedded. Investigating practices is therefore a viable approach to researching the intersection between young people's memory making and digital media's role in it. Practices also allow to extrapolate conclusions from these specific actions to wider society, because they reflect *habitus* and the internalisation of societal norms. According to Vivienne Sommer memory itself can be seen as a form of practice, which is constituted by several underlying practices (Sommer 2018, p. 56).

To provide a glimpse in the possibility of applications, I will give two examples that focus on practices in regard to archives. Wendy Bottero (2015) looks at how individuals use archives to reconstruct their family histories. Bottero highlights how the practice of finding information of ancestors influence practitioners' senses of identity. In addition, reconstructing and "telling a good story" with often incomplete and fragmented documents found in archives is labour intensive and requires a certain level of creativity to put these disconnected pieces together. Geoffrey Bowker (2005) on the other hand, looks at archives and the underlying regimes of memory. Focusing on practices of scientists, Bowker highlights how archives and connected practices have changed over time with the introduction of new standards. He notes that "[…] acts of committing to record (such as writing a scientific paper) do not occur in isolation; they are embedded within a range of practices (technical, formal, social) that collectively I define as memory practices" (8). Therefore, Bowker emphasises the underlying memory practices of archiving and producing databases within institutions, and how they influence scientific work and knowledge production. Although Bottero and Bowker focus on two different groups of people representing private and institutionalised memory practices, they both show how these practices are intertwined with material and social networks. Depending on the contexts of these networks practices unfold in various forms.

When it comes to digital memory, media practices and memory practices overlap to a large degree. To exemplify, today most pictures are taken with smartphones and shared with others through messenger services or social media. Media are also making certain practices more frequent or create and enable them in the first place. Within media studies, the focus on practices was previously placed on the consumption of domestic media like television and radio. For Nick Couldry moving beyond aspects of consumption is important to understand what it means to live in a world where media is highly present (2004). The new paradigm he proposes is

"[…]disarmingly simple: it treats media as the open set of practice relating to, to or oriented around, media." (Couldry 2004, p. 117). Couldry acknowledges the large variety of media practices, but cautions to get lost searching for these variations. Instead one should consider the range of practices that occur and use the emerging common features to understand the relationship between these practices (ibis:125). Any questions around media practices, therefore, need to be sufficiently contextualised by looking at everyday practices of certain individuals or groups. This does not mean that consumption is no longer important or that practices replace media consumption. According to Alan Warde (2005) "'consumption is not itself a practice, but is, rather, a moment in almost every practice" (137).

Whether 'old' or 'young', media are intertwined with contemporary everyday lives; so much so that they are crucial in framing daily routines. Referring to his research in Borneo, John Postill (2010) comments that broadcasting schedules affected people's perception of time and how they divided certain activities around the house into time slots. Postill mentions that this mirrors findings of British sociology and media studies that looked at similar media practices in several British communities (12). Similarly to these observations regarding broadcasting television, participants of this study have also elaborated how their mobile phone use structures their daily activities. For example, reaching for the phone first thing in the morning to catch up on messages or news. I will further elaborate on this in Chapter 4.

Approaching media through practices widens the study of media beyond texts and underlying production structures. A practice-oriented approach also repositions the study away from trying to solve "media effects" based on media texts (Chandler and Fuchs 2019). Moreover, practices allow to engage with the materiality of media and memory, widening the scope to their various embodiments and how people engage with them. Specifically in the context of digital media, which is often treated as virtual, invisible and generally disembodied from the physical world, practices can also reveal their underlying infrastructures (Graham and McFarlane 2015, p. 5). This materiality will be further explored in Chapter 2, where I will discuss the application of assemblage theory to this thesis.

Through the literature I have demonstrated various views on memory and how these views are embedded in disciplinary conventions. My own understanding of memory has been influenced by the overarching commonalities of these approaches. The main components being:

1. Memory is not only about the past, but also about the present and the future.
2. Memory has a constructed character that reflects cultural and societal elements of the group of people it belongs to.
3. Collective and personal memory are not a dichotomy but interconnected and build upon each other.
4. Whether collective or personal, memory is frequently expressed through narrative accounts of the past. How these narratives are told depends on cultural conventions as well as the medium through which they are told. Hence, cultural and material contexts need to be carefully considered.
5. Memory is not only located in texts or objects, but also within practices. By choosing a practice-based approach, I am emphasising the everydayness of memory making.

Accordingly, I see memory as a relational process that links the individual to the collective, where the individual re-articulates the social in their personal practices. The significance of memory for this research does not lie within its accuracy or objectivity to recount past events. Instead, memory is significant because it connects young people's practices, identities, digital media as well as larger societal discourses around digitalisation. In a sense, memory is representational knowledge of the past. By framing memory as subjective and imaginative, I also want to bridge how young people's understanding of themselves and the world around them is anchored within different temporalities that are in part articulated through their digital media practices. These practices involve planning, creativity and forms of narration that are shaped by the infrastructure and media norms of digital media. Digital media has further blurred the already sketchy line between collective and personal memory – as public and personal communication often overlap. Therefore, the presence of these media technologies has produced new questions over how memory is mediated and how practices are affected by them.

The mediation of memory

As this thesis is concerned with the influence of digital media on memory practices, I will discuss the concept of mediated memory in the following section. Media in its various forms has always been part of capturing memory and speaking about the past. With the growing importance, presence and variety of media in ordinary people's lives, memory is also increasingly mediated

(Hajek et al. 2015, p. 4). The expansion of everyday media has also provoked a shift in how media is viewed by scholars. As mentioned above, mass media and media consumption as well as the influence of institutions and resulting power imbalances were previously the focal point of media studies. Today, research on media has deviated towards the concept of 'mediatisation'. In the academic discourse mediatisation can either emphasise a cultural process that expresses negotiations of power between dominant institutions and subaltern groups, or media's capability to bridge space, time and otherwise separated groups through mass and interpersonal communication (Livingstone 2008). This 'bridging' element of mediation also applies to memories, which I would like to emphasise.

Accordingly, mediatisation also highlights the underlying social configurations in which media exist. Therefore, "[…]all sorts of media can essentially be termed social and have the potential to afford various forms of memory-making and mnemonic practices." (Hajek et al. 2015, p. 6). Media do not only allow memories to cross space and time, but mediated memories can have the same effect as memories of personal experiences (Garde-Hansen et al. 2009). Photography, for example, has become a central mnemonic tool for documenting personal and societal events, since its insurgence in 1826. Digital media has transformed photography from a medium that was expensive and reserved for special occasions to a medium of the everyday. While a photo camera film has limited space and needs to be developed before one could see the result, digital photography is now instantaneous, can be created in large quantities and does not produce additional costs after a digital camera, often in the form of mobile phones, has been purchased. In addition, the volume of data we produce is growing and needs more storage capacity (Bhat 2018). Although it should be noted, that digital media is becoming increasingly visualised (van House and Churchill 2008), the immediacy and quantification of media at a lower cost also affects other forms of communication like sound and texts. As Mayer-Schönberger puts it, "[t]he consequences are profound: unlike in the analog world, a digital copy is an exact replica; every bit is the exact copy of the original. Hundreds of generations of copies of copies of the digital original later, the resulting copy is still as perfect as the original." (Mayer-Schönberger 2009, p. 56). The ability of digital media to record vast amounts of information is, therefore, a dominant factor in how scholars have framed its influence on memory (Sebald and Döbler 2018).

José van Dijck highlights the changes to the nature of memory driven by new technologies, which are turning memory into a networked experience. According to her earlier work, digital

technologies are able to create new connections between people through memory itself. Van Dijck addresses several forms of making memory online, like blogging and digital photography, which also lead to the reassessment of the idea of privacy. In addition, digital media's embeddedness in everyday activities has a significant effect on formations of the self. Through this entrenchment in everyday practices, van Dijck highlights, the materiality of digital media (2007). However, it is not only the ways of remembering that are transformed through digital media, but also the ways of forgetting. According to Elena Esposito (2013) the issue that digital memory poses to memory is no longer remembering, but the act of forgetting. Human memory is flawed when it comes to remembering with detail and accuracy. For centuries, if not millennia, the issue has been one of limited capacities of storing information that has made remembering a material challenge. In contrast, computers invite and often require to save everything, making remembering the norm (Esposito 2013). With the rise of digital technologies, human and computational memory are being juxtaposed (Reading 2008). Forgetting is always implicit in remembering and practices of forgetting are largely based on the modalities of remembering. In the case of digital media this implies that one has to remember to forget in order to erase or delete data. However, as Chris Locke (2000) points out the internet is a complex network and it is difficult for most ordinary people to navigate such complicated information environments, which according to him necessitates artificial intelligence (AI) so people can manoeuvre it (30). Managing one's digital memories can, thus, be a time consuming and labour intensive process.

Andrew Hoskins has contributed much to the study of mediated memory. He speaks of a connective turn that shifts the paradigm of how we treat and understand memory as well as its functions and dysfunctions (Hoskins 2011b). Particularly, the scholarly established distinction between individual and social memory, which I have discussed previously, suffers from the prevalence of digital media (Hoskins 2011a). Communication is increasingly distributed through networks that individuals are interwoven with. As Hoskins notes, "[t]he digital networks that today mediate self and society produce new and sometimes highly contradictory social relations of apparently greater fluidity complexity and density." (Hoskins 2011b, p. 22). In his view digital media has produced a shift from an active memory driven by human agency towards an increased dependency on digital technologies to do the remembering for people (Hoskins 2016). Furthermore, he stresses the downsides of the increased capability to record and store information. Sharing a rather pessimistic vision of digital memory, Hoskins speaks of 'sharing without sharing' because activities that individuals do online (liking, linking, posting etc.) only create illusions and

a feeling of being active and connected to others (Hoskins 2017, p. 2). These interactions are done out of the coercion through digital media and "do not debate but emote" (Hoskins 2017). In Hoskins's view, "[t]he individual has become a hybridized cipher of the past, sifting, tagging, managing the flux of media and communication content that marks the rise of the post-human." (Hoskins 2013). He sees another challenge in the lack of what he calls 'decay time'. Decay time describes the process in which analogues media objects like film, photographs and paper documents corrode over time. This feature appears to be absent from digital media objects as they often exist in a multitude of copies that do not change with time.

> "These media's finite forms marked the past's decline, holding a proper distance between what was and what is now: making visible and audible society's dissipating memory. And this distance was mediated through the scarcity (and sometimes fragility) that comes with machinic and artefactual decay, degradation and loss. The result was familiar deterioration." (Hoskins 2013, p. 387)

Hoskins's work is important, because it acknowledges the far-reaching shifts that have occurred due to digital media. Nevertheless, his understanding of how memory has changed through digital media strongly separates human and technological memory. In his writing, Hoskins frequently questions what these machines do to us as well as how human memory is altered or even lost through their usages. However, focusing on what technologies are 'doing to us' can be limiting. Hoskins's approach sidelines that technology is designed and build by people with their own cultural backgrounds, belief systems, agendas and biases. Technology does not exist in a vacuum and societal changes should be considered when we discuss, how digital media affects memory. In addition, his concerns over a decreased decay time, do not discuss the materiality of digital media, which is also subject to decay. For example, the ways we save and store data have seen the coming and going of several computational systems. Many of these iterations are no longer in use and certain formats can no longer be read. Most digital storage relies on electromagnetic storage that loses its effectiveness over time. The lifetime of such units is, therefore, also limited and requires replacement (Bhat 2018). In professional settings like libraries and archives difficulties of digital preservation have already come to the forefront (Webb 2018). While physical storage units like flash drive are increasingly outsourced to cloud storage, these solutions still rely on physical server farms. While these data centres are often located out of sight, they require a lot of physical space and large amounts of energy mostly to cool these machines (Brodie 2020). Far from ethereal, digital technologies are still subject to physical forces. This also applies for devices, without which we would not be able to interact with digital media and the internet in particular.

Thus, I will argue throughout this thesis for including digital media's materiality into analysing memory practices.

The worry of losing the ability to forget echoes the popularised slogan of "the internet doesn't forget", when indeed – it does. The internet's distributed nature means that access to information needs to be networked and is accessible through a network address also known as local-link address. Phenomena like content drift or link rot occur when content is changed, websites are reorganised or eliminated entirely. Jonathan Zittrain (2021) points out that much of the information on the internet has already disappeared. However, the disappearance of some information and the persistence of other information, both demonstrate the issues resulting from the internet's distinct architecture that is tailored around immediacy and the 'now', rather than future-oriented sustainable policies (Zittrain 2021). Zittrain's findings illustrate the ambiguity that digital media entails in regard to memory. Nevertheless, we should be cautious about centring discussions about digital memory solely on recording and storing data as this overemphasises computational capabilities, rather than human practices and sociocultural contexts. As Vivienne Sommer points out (2018) saving information and memory are not the same and should not be conflated. In contrast to propositions that warn of the loss of forgetting, like those of Mayer-Schönberger (2009), Sommer stresses that not every information on the internet is actually in use or contributes to people's knowledge (69). Despite the large amount of information what constitutes a memory is still defined by human practices, social norms and conventions. It is only by including these that we can understand how digital media really affects memory.

While digital media has undoubtedly many social and cultural effects on how people remember, perspectives that only look at what technologies do, neglect that offline practices of remembering do not lose their importance. During my fieldwork, it was brought up on several occasions that digital photographs were forever gone because smartphones were lost or broken. In some instances, this meant that young participants reincorporated analogue photography along with digital photography, because it appeared to be 'safer' and more meaningful. Digital media on the other hand appeared to be fragile as information was often centrally stored. In general, objects like printed photographs, diaries, postcards, gifts or souvenirs from trips were described as having more value and providing more emotional attachment, because of their constructed opposition to digital media. I will discuss this issue further in Chapter 7.

Digital temporalities

Apart from new ways of gathering and storing information digital media also challenges our understanding of time. According to Lohmeier et al., the abstract concept of time is always mediated, hence in return, much of people's media experiences are about the passage of time. In the context of digital media, time is also central to the business model of technology companies who shape our understanding of it for their own needs (Lohmeier et al. 2020, p. 1522). Veronica Barassi (2020b) identifies three temporalities under surveillance capitalism, which signifies digital media's impact on how we structure and imagine continuity. These temporalities are: *immediacy*, *archival* and *predictive time*. Immediacy describes instant communication, but also the continuous production, storage and processing of personal data. Within the temporal dimension of archival time, everyday life is captured, archived and turned into a data point that can be retrieved later on. Barassi also stresses, that archival time has contributed to a new cultural belief in data as a way to create a deeper kind of knowledge. Finally, she describes predictive time as the wish to predict human behaviour based on previous actions that have been captured through surveillance. It is these predictive analytics that are the foundation of technological processes like AI or machine learning. According to Barassi these three temporalities represent the contemporary propensity of creating structures and practices that make the concurrent monitoring of everyday life possible (1548). Naming datafication as the main driver Barassi states that digital technologies reinforce the presumable need to track and record our everyday life experiences. She further emphasises that such practices have existed before the advent of data technologies, but that these practices were expanded and amplified (1555). The immediate and archival temporality is particularly important for the experiences of young people. While many memories were first conceived as a means for immediate communication with others, over time these digital memory objects form a personal memory archive. Although more subtle, the third temporal dimension of predictive time is not insignificant and encountered by young people in the form of content or product recommendation as well as personalised advertisements that follows them around the web.

Digital memory as democratising force

Another emphasis in the study of digital media as mnemonic tools lies on their potential for participation and democratising memory, especially within institutional settings. As mentioned by Garde-Hansen (2011) these institutions had a monopoly and certain authority on how we speak and remember the past, but with digital technology, personal or collective experiences can be

publicly discussed by individuals or groups themselves. Thus, digital media has not only affected personal practices, but also pushed Galleries, Libraries, Archives and Museums (GLAM) into reassessing their own role as memory institutions and their growing reliance on digital media. Digital media poses new challenges to these institutions as they require major reshuffles of how to integrate digital objects in museum work and collections (Fouseki and Vacharopoulou 2013), using digital media for outreach, community building and engagement (Stuedahl 2009; Kidd 2011) and general interests in how to form digital archives (Grau 2017). In addition, due to the 2020 Covid-19 outbreak GLAMs had to increase their digital offers, while their physical collections were closed.

Digital media allows new ways to represent the past in the present, but also enables a constant reframing of these representations and allow ordinary people to share their memories or to discuss memory far beyond their personal networks. In connection to globalisation processes media is important because it distributes texts, images and narratives across localities. Arjun Appardurai (2010, 1996) has called this phenomenon *mediascapes* of global cultural flows. Hence, global conditions have impacted debates and discussions on memory (Assmann and Conrad 2010). This is also reflected within decolonisation discourses in regard to memory that are further expanding discussions around memory (Turunen 2020). Hence, hyperconnected memory cultures constitute a new public space for negotiating history and memory, that make under-represented groups more visible (Kalinina and Menke 2016). These expressions and renegotiations of collective and public memory can be interpreted as a tool to enhance democratic processes as it shapes political discourses. Memory does not only provide context to current issues, but can equally benefit or hinder certain institutional actors (Edy 2011). Therefore, mediated memory presumably offers new forms of participation in political discourses and knowledge production. This aligns with the general idea of digital media having democratising effects through the growing ability of individuals to access and distribute information as well as the interconnectivity between individuals (Shirky 2008; Castells 2000). This assumption has been particularly prevalent at the turn of the millennium, but still influences greatly our view of hyperconnectivity as a way to challenge institutional power.

Despite this early optimism, it is increasingly acknowledged that the internet also inherits power structures and hierarchisations (ten Oever 2021). Particularly, the growing control of a few large technology corporations over the majority of internet infrastructure and architecture is often

criticised. Most notably Google, Apple, Facebook, Amazon and Microsoft (GAFAM) are dominating the technology market, of which the majority has built their business on the collection of personal data for profit (van Dijck 2020). In order to collect more data, devices collect people's movements and apps and platforms are designed to gather personal data of users, including their personal memories. These inherent commercial interests ultimately shape people's media practices and influence how people create and share their memories online.

Niemeyer and Keightley (2020) also address the commodification of memory in connection to nostalgia, which they describe as "intertwined modes of relating to time" (1641). According to the authors, nostalgia engages with the past as an affective modality, but the underlying economies of digital media are affecting memory activities and practices. Therefore, Niemeyer and Keightley propose to build "[…] on the materialist analysis of digital economies of memory by keeping in view the symbolic and discursive practices the material conditions of late and platform capitalism support." (1644). Taking Facebook as an example, they stress that these platforms exploit the mnenomic labour of users and that the mobilisation of nostalgia aims to produce financial gains for commercial actors. Despite this criticism, they also acknowledge that nostalgia has creative and progressive potential to overcome personal crises of the past and highlight nostalgias performative qualities. With digital media personal memory archives are merging with corporate archives and to a certain extant also with institutional archives, thus forming three overlapping and intersected layers (Garde-Hansen 2011). Particularly, the overlap between personal and commercial archives poses questions of what happens to personal memories once these companies seize to exist or change their platforms. Private owners of platforms are often more concerned with the imminent value of personal data than preserving them for future personal remembering. This thesis will address how young people cope with these uncertainties and what strategies they develop to compensate.

The emergence of new memory practices

The overlaps between personal, commercial and collective interests are also represented in emerging memory practices. In the introduction of "Memory in a Mediated World", Andrea Hajek, Chirstine Lohmeier and Christian Pentzold outline the development of mediated memory:

"Moreover, from wall painting and cuneiform tablets via manuscripts and prints to the rise of networked electronic infrastructures and digital services and applications, media innovations have facilitated the reassembly of the practices and materials of individual and collective remembrance and reconstruction […]." (Hajek et al. 2015, p. 5)

Accordingly, new practices have always emerged with new technological developments that are specific to technological affordances. Nevertheless, some contemporary emerging memory practices are controversially discussed, particularly when they involve mobile phones and social media. In his article on photography practices at the Holocaust Memorial in Berlin, Christoph Bareither (2021) introduces the concept of emotional affordances. In his usage of affordances, they describe how a material environment, object or technology can enable and disable access to certain practices. Referring to Bourdieu's notion of the 'practical sense' he highlights the role of an individual and their incorporated knowledge shapes how affordances are enacted (Bareither 2021, p. 580). He highlights that practices involving digital media particularly in connection to photography are often framed as superficial or shallow. However, as Bareither points out the photo practices aim to capture a specific feeling a place evokes or marking one's own presence. Communicating to others through digital media is intended to let them know what a place 'felt like'. Migowski and Fernandes (2019) look at how memory practices unfold through an ecosystemic approach and speak of co-constitutive agencies between platforms and users. Taking Facebook as an example, they argue that these platforms do more than merely hosting and processing data. They also highlight the performativity that emerges when people share their memories on Facebook, as they are more aware of the ability of others to comment and engage with personal memories. The elaborations by Bareither as well as Migowski and Fernandes highlight that digital memories are more than just a technical process, that also enable emotional self-expressions that aim to engage with other people. These co-constutive agencies between technology and humans as described by Migowski and Fernandes should, therefore, be considered as a mutual relationship in flux. However, instead of referring to an ecosystem, I will approach this relationship in the form of a memory assemblage. I will further elaborate on the benefits of an assemblage approach and how it will be applied in Chapter 2.

Setting the scene: youth, memory and digital media

As demonstrated, the interest in how digital media changes the mediation of memory has gained significant attention. Yet, the role that young people play in this has been rarely investigated. This

relates to the general assumptions, that old people are representations of the past, whereas young people represent possible futures. Hence, young people are treated as people with lesser or insufficient memory (Berliner 2005a, p. 587) compared to older generations. Therefore, scholars rarely look at how young people construct, hold or reframe memory. Instead, youth is only addressed in retrospect. For example, in Halbwachs' work on collective memory (1992, 1939) we can find mentions of childhood memories. But these are only used as memories of youth held by adults and elderly to contrast their current lives with those of their earlier days. Halbwachs even depicts elderly as being mainly occupied with the past and, therefore, fulfilling the role of guardians of tradition and the past (48). However, as David Berliner states, youth also play a part in renewing pre-existing cultural rites and knowledge and, thus, contribute to upholding the status quo (Berliner 2005a). This understanding of youth is also reflected in studies on mediated memories that investigate youth culture to illuminate bygone times (Kaun and Stiernstedt 2012). Children, teenagers and young adults are hardly treated as active memory makers. Instead, these stages of life are mostly a medium for retrospection and nostalgia that sidelines the present memory making of young people. This treatment of youth is related to the mostly sub-ordinate status that young people are assigned in many societies and cultures.

Due to the idea that youth represents the future young people are commonly thought of as 'people in the making'. Research interest in their memory making is generally limited to the development of their cognitive abilities (Nelson 2017) or as subjects of enculturation and reproducers of rituals and traditions (van Gennep et al. 2019, 1909). Therefore, young people are rarely considered independent agents or complete people, but rather living continuations of their parental or grandparental generations who are discussed in contrast to them. This also explains why, in Western societies, research on youth has a strong focus on schooling as well as young people's development framing memorisation as part of learning (Haripriya 2020, p. 76). However, this approach is limiting in understanding lived experiences, when most attention is paid to what children or young people might become (Harlan 2016). The sociology of childhood has long advocated for children and young people to be treated as agents who make their own unique contributions to social life (James and Prout 1997). Amal Treacher (2000) worked with schoolchildren in Brixton, South London. During workshops, she conducted at the school, Treacher spoke to children about their family lives and noticed fantasy and memory are often intermingled to create interesting and poignant narratives of the past. However, as Treacher mentions, "[t]he common assumption is that childhood becomes the raw material for the adult's

life – it becomes that which is reworked, understood and put into a narrative retrospectively." (ibis:146). Treacher's work shows that young people's memories have value in and of themselves and are more than a contrast to grown-up experiences. This research focuses on young people's role and cultural significance in society and sees youth as creative agents.

Who and what is considered youth is contested and frequently changing. In addition, youth's status and conceptualisation are culturally specific. Life stages like childhood, teenagehood and young adulthood are not universal. The notion of adolescence is a rather recent one and is closely linked to developments set into motion by the industrial revolution. Adolescence was rarely used as a term before 1900. Driven by the development of secondary schooling and the juvenile system in the US, 'adolescence' came into existence to fulfil a specific cultural need to define a stage between childhood and adulthood. This group of young people who entered the labour market at a later stage was mainly characterised by delinquency and disobedience (Baxter 2008). Similar processes happened in the UK and Germany (Shore 2019). Notably, not all cultures utilise distinct demarcations that separate specific stages within youth or mark a particular treatment in contrast to adults. Hence, youth is not dependent on individual biological developments but on the societal and cultural framing of it (Rohrer 2014, p. 38).

I find the proposition of anthropologist Deborah Durham to see youth as a social shifter particularly insightful (2004). Durham points out, that ideas of youth are always shifting, for example, childhood as a distinctly innocent stage of life as we understand it today, was not found before the emergence of the so-called modern era. Hence, Durham criticises taking the category of youth at face value, because it leaves out explorations of who is considered youth, when people are considered youth and what the implications are (591). Durham's perspective thus probes into investigating youth beyond a certain age demographic. Because the notion of youth shifts over time, Durham sees youth as relational. Youth and concern over them can conjure within society as a pragmatic or political act that signifies youth as social shifters. Drawing from linguistics, the term shifter both indicates a referential and indexical function (592). In this sense, a shifter can reveal other sociocultural factors and can only be understood in the context of a specific usage as the meaning changes or shifts with every use. "Thinking of deictics and shifters helps one recognize the nature of discourses as relational, pragmatic, and part of a shifting and contested historical and social arena." (593) Therefore, mentioning youth in certain contexts stresses current debates and sociocultural shifts. Youth is more than a description of a certain demographic as it

also emphasises hopes and fears about an unknown future. Throughout this thesis, I will continue to speak of young people and youth in broad terms. For example, while the lives of a 13 and a 27-year-old greatly differ, their social status as youth still places them as humans of becoming. Youth's liminal quality makes the term susceptible to different interpretations and as Durham states youth as social shifters also mark wider societal changes and anxieties. Youth are seen as easily adaptable to digital media and naturally apt at using them. This is highlighted by the attention youth and their digital media habits garner in the media, which are often concerned with young people's safety. It is no coincidence, that societal discourses focus on youth rather than, for example, the dangers to elderly people of becoming 'addicted' to their phones, although this demographic has increasingly adopted digital media for everyday usage (Miller et al. 2021). Youth as 'our' future and technology promising progress elicit futuristic imaginaries that are discursively linked. Looking at youth in a wider age range can bring these links and youth functionality as social shifters to the surface. Therefore, I will mostly refer to my participants as young people or youth as opposed to children, teenagers or young adults. I do so because discourses and concerns about young people and digital technologies are projected onto children, teenagers and young adults to similar degrees.

Youth and digital media

With the growing influence of digital media, scholars showed a strong interest in youth as they were seen as early adopters. Hence, many studies about the internet and digital media explore youth culture and their online expressions. Bennett and Robards (2014) mention, that before the advent of digital technologies, youth culture was defined by collective affinity and visual tastes that were strengthened by geographical proximity. These cultures could take on modifications based on local contexts, but would still be confined through physical space. The authors mention that with digital media these cultures are formed online and are globally disseminated, which also affects young people's identity making and creative expressions. Ito et al. (2013) mention that generational identity is often equated to technological identity. Therefore, the spaces that young people create online are interpreted as opposing adult authority over socialisation and education. These online spaces allow young people to take agency on whom to speak to and what to learn, away from adult surveillance (8). According to the authors, this segregation from older age groups also means that youth culture is frequently framed as a problem to wider society. Ito et al. highlight

how digital media offers a creative avenue for children and young people, but also stress the presence of commercial interests in digital cultures. As young people identify with media cultures they become a core market for companies operating in these spaces through increased advertising for toys and other products tailored towards youth (23). Because of digital media's close links to youth culture, scholars have investigated many facets of their interactions. This field has produced a variety of studies in interesting areas, like youth and learning (Livingstone and Sefton-Green 2016), youth and sexuality (Ringrose et al. 2013; Gabriel 2014), youth and their place in digitally connected families (Barassi 2020a; Livingstone and Blum-Ross 2020) or focusing on specific youth subcultures like gaming (Crowe and Bradford 2007). This illustrates the many fields emerging from the study of digital media and youth. Because of the limited space of a doctoral thesis, I will not examine them in detail here. Nevertheless, I would like to mention a few works that have influenced my perspective.

Sonia Livingstone has extensively produced work on digital media and its role in the life of children and family life. In her 2008 article on teenagers and their use of social networking sites, she notes that self-portrayal is important for young people in their practices on these sites. She argues that young people are attracted to the online because it can represent a space reserved for them and their peers – away from adult authority. This is partly still the case more than a decade later, although there are more ways for parents to monitor what their children are doing online today. Mesch & Talmund (2010) address how Information and Communication Technologies (ICTs) are a crucial part of young people's social lives. They also question whether these technologies have fundamentally reshaped the experiences of adolescence as social interactions are more frequently conducted online. Nevertheless, Mesch & Talmund also point out that these media are mainly used to sustain already established relationships and only marginally applied to form new ones. Danah boyd (2014) also discusses young people's online social lives but puts them into context to issues of identity, privacy, addiction, danger, bullying, inequality and digital literacy. Boyd emphasises that socio-technical dynamics can be used to highlight cultural values and constructs. The anxieties and concerns over children and young people's usage of such media are expressions of societal issues, rather than caused by digital technologies. Moreover, boyd examines the creativity of teenagers who use online expressions to create a space of their own.

"As teens turn to and help create networked publics, they begin to imagine society and their place in it. Through social media, teens reveal their hopes and dreams, struggles and challenges. Not all youth are doing all right, just as not all adults are. Technology makes the struggles youth face

visible, but it neither creates nor prevents harmful things from happening even if it can be a tool for both. It simply mirrors and magnifies many aspects of everyday life, good and bad." (boyd 2014, p. 212)

Boyd's perspective is significant because it strongly connects the digital to young people's offline lives and emphasises that the online is not a mere fantasy world, but part of young people's 'real' life. Her insistence that the blame on social media for being the main cause of issues like bullying is misplaced, has greatly contributed to my perspective on such issues. Hence, it is important to not only consider the practices that young people do online, but have a holistic view of their lives and put them into relation to wider societal contexts. Despite the diversity in approaches and topics on young people's usage of digital media, how memory plays into this has been little explored.

Youth and digital memory

As discussed earlier in this chapter, digital affordances influence people's memory practices. One of the most controversial digital self-representations is the *selfie*. Similarly, to Christopher Bareither, Kate Douglas (2017) describes how selfies at memorial sites are negatively perceived. As Douglas points out selfies are often associated with young people and young women in particular and judged as displays of narcissism, self-importance or being phoney. When taken at such sites of commemoration selfies are frequently interpreted as a sign of disrespect towards difficult pasts and the people who are being commemorated. Douglas sees the selfie as summarising core tensions provoked by self-representations of youth. She writes, "the limits of self-representation and the role of new technologies and media in enabling young people's second-person trauma witnessing and in enabling new modes of witnessing." (3). Thus Douglas argues, taking selfies is a form of second-person witnessing of history and lets people reflect on the past in relation to themselves. The involvement of digital media signifies a shift in witnessing practices that stand at odds with previous forms of silent witnessing at memorial sites as witnessing has become a prevalent everyday practice. In addition, Douglas points out that taking selfies represents a form of educating and sharing knowledge online with those who cannot be physically present. Douglas' work highlights that these emerging practices, which contest how we remember, are often judged as disrespectful or superficial. They also show how the moralisation of digital media influences the perception of such emerging practices. Douglas' work demonstrates, that despite such judgements, memory practices remain meaningful and facilitate a deep engagement with the

past.

José van Dijck (2008) also addresses how digital media affects people's photography practices. She states that digital media has shifted personal photography from a practice of remembrance, mainly related to family, to a practice of imminent communication, showcasing the self. Young people according to van Dijck still use photographs' mnemonic purposes, but also utilise them as tools for conversation and peer group building (ibid: 61). Due to their social function, photographs motivate people to produce an idealised self, for example, by manipulating images or posing in a certain way. Van Dijck stresses, that although the manipulation of photographs has always been present and that they never portrayed the 'objective truth', the digital makes such manipulations the norm rather than an option. Furthermore, she predicts that "[t]he digital age will set new standards for remembrance and recall: the terms 'true' and 'doctored' will no longer apply to pictures, nor will we be able to speak of 'true' and 'false' memories." (ibid:71). However, this hypothesis has, thirteen years after her writing, not been confirmed. On the contrary, the idea that the internet is a 'fake' space or allows fakeness is still very much held. Discourses around fake news, fact-checking and 'photo shopping' images are reinforcing the perception that online life is not real. The reproducibility and capacity to manipulate digital images seem to have set off a new search for 'authenticity' on social media, as I will further discuss in Chapter 6. Because social media documents much of young people's early lives, these platforms function simultaneously as personal archives. However, Robards et al. (2018) conclude that the significance of platforms goes beyond their archival capacities and that Facebook in particular prompts youth for "deeper and shared memory work" (ibis: 76). Speaking to young people in their twenties, the authors found that the practice of 'scrolling back' through one's Facebook feed would build additional connections to friends, family and rites of passage over time. Therefore, Facebook also contains intimate stories of individuals that come to light when speaking about their feeds. Scrolling back can harbour intense emotions for young people, especially as they encounter memories they had shared in younger years, linking back to a specific time in their lives. Using Robards et al.'s work we can see how posting images online is more than just generating likes. However, the authors also question the longevity of such memories and the role companies like Facebook play in guarding them.

Handyside and Ringrose (2017) also highlight that digital memory practices of young people go beyond archival functions. They investigated young people's sexuality in relation to the video and

photo sharing platform Snapchat. Because Snapchat's features let posts disappear after a certain period, memory is not supported through automated archiving of posts. Despite this ephemeral character, posts could take on a life of their own, so youth would often not know what might happen to their 'snaps'. Snapchat's temporality and disappearing content lead many young people, especially young women, to be cautious of others taking screenshots of their 'snaps'. In the examples given, these screenshots would often be used to shame young women in hindsight for what they had posted. But the screenshots also allowed young women to frequently remediate their memories through them. Handyside and Ringrose highlight that social media platforms mirror people's societal positions offline and that young people in particular can suffer from their societal position when being online. Furthermore, these Snapchat practices illustrate that specific digital affordances directly influence young people's memory practices. Although the literature on young people's digital memory practices is limited, it highlights that identity performances are crucial. Furthermore, it shows that digital affordances directly influence young people's practices and that existing social norms are an important factor.

Research Gap

The discussed literature has demonstrated the importance of digital media in contemporary memory practices. However, the intersection between youth, digital media and memory has gained less attention. This thesis aims to address this gap. As shown, previous research has often highlighted a techno-deterministic approach to digital media, more asking "what is digital media doing to our memory" than "how are people together with technology changing our understanding of memory." While the study of memory in connection to media has continuously highlighted the overlap between personal and collective memory, many like Hoskins, Garde-Hansen and Mayer-Schöneberger have separated and distinguished these emerging memory forms from those embedded in the offline sphere. By focusing on practices, I aim to highlight the often neglected relationship between offline and online practices. It is not that digital memory practices replace analogue forms like collecting objects or keeping printed photographs, but rather complement them.

It is rarely looked at what people do regarding their personal memory practices and digital media. The main focus, lies usually on activism, political movements or questions regarding collective memory. In addition, memory practices are often spoken of in relation to commemoration, political

changes or traumatic events. By focusing on the mundane parts of memory making fed by digital media's ability to record larger amounts of information, I intend to highlight young people's motivations, emotions, social status as well as digital affordances that enable or hinder these practices. Moreover, while social media has garnered a lot of attention, the devices with which we interact to access it i.e. smartphones and other computers, are often not considered in emerging practices. I argue that practices on social media and digital devices are intrinsically interlinked and should be investigated as such to get a more encompassing picture of said practices. If we want to understand the effects digital media has on memory practices, we also need to consider its materiality embodied in digital devices.

The connection between digital media and young people has been frequently investigated and is well established. However, as mentioned above the role memory plays in this interaction has so far garnered less attention. I argue that young people are central to understanding memory making in connection to digital media. Not because young people are the only ones whose lives are intrinsically interwoven with digital media, but because the discourses around youth and digital technologies highlight frictions created by growing reliance on the digital for everyday tasks. By giving more attention to memories made by young people, instead of memories of youth or childhood, this thesis acknowledges young people as actors whose experiences are uniquely contributing to the study of memory. The research gaps I am aiming to fill, thus, lie in creating a holistic view of young people's contemporary digital memory practices that also consider their offline activities as well as the role that digital devices play in them.

Conclusion

This chapter has discussed multi-faceted approaches toward memory and how its study has gained new dimensions through the emergence of digital media. Digital media changes how people interact with memory, but also offers new forms of memory practices and understandings of time itself. Although young people and their relationship with digital media and technologies have garnered early interest, their emerging memory practices have rarely been discussed. However, studying memory in this context offers other insights as well. Memory is a helpful lens to explore the role of digital media in different stages of people's lives and how they mark, structure and form their everyday activities - memory is intrinsically relational. Conceptually framing these relations between youth and their social status as cultural shifters, memory and digital technologies is a

major aim of this study. The following chapter will elaborate on the theoretical underpinnings of this research that are based on discussions of human and non-human relationships. It will further present my theoretical approach based on assemblage theory as formulated by Gilles Deleuze and Félix Guattari.

Chapter 2: Assemblages of digital media practices – theorising technology and human relationships

This chapter will discuss how assemblage theory guided my understanding of how digital technologies influence young people's memory practices. The chapter focuses on ontological questions of where technologies are placed in memory making and how they should be formulated. Addressing the research question based on this theoretical foundation allowed me to frame the general relationship between people and technology. Assemblage theory provides the necessary flexibility to describe the role of non-humans as an important force within memory making that can give a deeper insight into connected practices. Studying and conceptualising the non-human as part of human social life is an approach that has been mainly established in science and technology studies (STS), but has also permeated into other fields like anthropology, sociology and cultural studies. Firstly, I will address how technology is culturally framed and discuss the aspects of human and non-human relationships. For this, I will establish basic terms like techno-determinism and techno-somnambulism based on Bryan Pfaffenberger's foundational text on the anthropology of technology. Furthermore, I will discuss Donna Haraway's notion of the 'cyborg, as it has fundamentally influenced how human and non-human relationships have been discussed. Following this, I will expound on my reading of Gilles Deleuze and Félix Guattari's book 'A Thousand Plateaus' and explain how I have connected their theoretical concepts of assemblage to this research. Assemblage theory has been applied in various contexts and expanded on since Deleuze's and Guattari's initial publication. However, I found a reading of the original text useful to apply assemblage theory to the specific context of this study. Using assemblage theory as an ontological framework has been useful in putting the spatially dispersed subjects and objects of this study into relation to each other. Lastly, I will also discuss how other authors have used assemblage theory to study data in recent years. These works have further informed my theoretical understanding of the relationality and materiality of digital data flows.

Technology as embodiments of human and non-human relationships

What technologies are and how they are interwoven with people's social life is layered and complex. The different understandings of what technology is in various cultural contexts

challenges a universal definition. Because this research was conducted in a Western European setting, I will focus only on how this cultural notion unfolds in this specific context. Influenced by Judeo-Christian ideas, Western thought frames nature and society as oppositions where humanity has the mission to ultimately rule over nature – separating humanity and society from the 'natural state'. Technology as manmade objects is commonly attributed to culture and society and is a testament to humanity's alienation from nature. Therefore, the notion of technology is deeply embedded in this dualism between nature and society (Ingold 2002, p. 312). This dualism is reflected in the ethnographic findings of this study as well.

As Bryan Pfaffenberger (1988) describes "technology" is primarily a normative term, which has been shaped by two central views: technological somnambulism and technological determinism. Technological somnambulism frames technology as something that is purely related to making. From this point of view, technology is only of concern to people who are directly involved with this making, like engineers or software developers and not to those who are non-experts or simply using technology. Moreover, technology is nothing more than a tool that is used by people with no further consequences for other aspects of social life and any effects technology might have seized to exist as soon as the tool is put aside. From this perspective technology is neutral and does not transfer ethical, moral or cultural implications - its effects solely depend on the intention of who is using it (Pfaffenberger 1988, p. 238). The oppositional view, technological determinism, sees technology as the driving force behind social and cultural changes that determine the ways in which society is structured. Under this view technology is an autonomous agent that moves without human control, turning people into nothing more but bystanders to such processes as they experience technology's 'inevitable' impact. Techno-determinism also expresses an evolutionary vision in which humanity is defined by the 'progress' it makes materially and is pre-destined to follow a path of advancing technological developments (Pfaffenberger 1988). These oppositional and extreme understandings were not suitable for this project. However, they are still frequently expressed in societal and media discourses. In addition, during the fieldwork for this study, many research participants expressed iterations of these positions when describing their relationship to digital media. Participants often moved between opinions about technology. Sometimes assuming that the effects of technology depended on the 'right' usage, whereas other times believing that technology shaped their lives and society without humans having any say over it. These traditions of thought, as described by Pfaffenberger are still influential and shape how young people interact with technologies. As such, technological somnambulist or technological deterministic approaches

are important to understand the cultural contexts in which my participants live and create their memories. Furthermore, this dichotomy between somnambulism and determinism is often expressed in scholarly work researching technology – either as a basis or as an attempt to disprove them.

The 'social' component of digital media has been a crucial focus of humanities and social science scholars since they turned to the 'digital' as a field of investigation (Miller and Horst 2012; Lupton 2015; Rohlinger and Sobieraj 2020). Thus, many have attempted to define the internet or social media in particular, beyond its material constitution. According to Christian Fuchs (2014) "[m]edia are not technologies, but techno-social systems. They have a technological level of artefacts that enable and constrain a social level of human activities that create knowledge that is produced, diffused and consumed with the help of the artefacts of the technological level." (Fuchs 2014) Fuchs emphasises the importance of looking at the connections between both humans and technological infrastructures to understand what digital media and, in particular, social media and the internet are. He expands beyond the view that technology is either removed from social life or is determining social life. A crucial point, that I have adopted for this research. Fuchs further notes that "[t]he Internet consists of both a technological infrastructure and (inter)acting humans." (37). Accordingly, networked technological structures provide a setting for producing and reproducing human actions and social networks. This two-way system also produces and reproduces the technological structure of the internet through human practices. However, for the purpose of this research, I have found that ordering these processes as a system is too rigid to account for the complexities outside direct interactions between humans and digital media as well as the nuances that define their relationship. To elaborate on my point here, I would like to give an example. Technological infrastructures were conceptualised, designed and built by humans who have embedded their social norms and biases into these infrastructures. Hence, these infrastructures are producing and reproducing more than human actions or social networks. In addition, Fuchs' emphasis on a system is too inflexible as it separates what humans do and what technological infrastructures do, instead of seeing it as one interconnected process, practice and constantly emerging entity. This systemic thinking does not account for influences and impacts beyond networks and actions (e.g. human inaction or related but disconnected components). Therefore, I have adopted a view that emphasises the relations between humans and non-humans without describing them as a well-functioning system and instead accounts for fluxes and shifts within them. I have taken Donna Haraway's notion of the *cyborg* as a point of departure.

Donna Haraway's Cyborg Manifesto was intended as a critique of the radical and socialist feminist movements of the 1980s and a proposition to build alliances based on affinity as well as the stronger inclusion of women of colour. Despite this intent, or perhaps because of it, the essay and her intriguing usage of the 'cyborg' myth as a being beyond machine and animal, have been influential in rethinking the relationship between humans and non-humans, particularly in regard to humans and machines. Haraway criticises the aforementioned dualism of human and nature as well as the "dualisms of mind and body, animal and machine, idealism and materialism in the social practices, symbolic formulations, and physical artefacts associated with 'high technology' and scientific culture." (1991, p. 154). The cyborg breaks this binary as it is a hybrid of *machine* and *organism.* Furthermore, the myth of the cyborg suggests that people today are interlinked with the machines that surround them. Haraway writes:

"By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short we are cyborgs. The cyborg is our ontology; it gives us our politics. The cyborg is a condensed image of both imagination and material reality, the two joined centres structuring any possibility of historical transformation." (ibis: 150)

These circumstances described by Haraway, have also led to a rising ambiguity between the binaries of artificial and natural. Furthermore, she sees the transformational potential of the cyborg particularly within its existence on the boundaries. Therefore, in this understanding, actors are not separate entities but emerge through relational encounters (Lupton 2016b). Compared to Fuchs, Haraway pays more attention to the bodily relationship and hybridity of human and machine in their actions. This is not a system in which technology and human activities are placed on different levels, but embodiments in flux. Building on the notion of the cyborg, Elizabeth Keating (2005), has also emphasised the emergence of *homo prostheticus*:

"The 'transgression' of boundaries I am concerned with is located in the difference between 'real' and 'virtual' (e.g. threedimensional space vs. two-dimensional space, person vs. representation of a person), and how a body is augmented in interaction. The Internet has made possible new types of communities and interactions, including communities with 'non-human' agents as participants." (Keating 2005, p. 529)

Keating stresses that non-human agents are part of community and online interaction and not uninvolved facilitators. Images of cyborgs and prostheses are highlighting the materiality of digital technologies, but the framings of bodiliness invoke an organic quality that cannot be separated

from what is commonly called 'living beings'. This emphasis on materiality and embodiment has been important for the way that I have been thinking about the role that technology plays in the lives of my participants. Today, the most apparent symbol of the *cyborg* and *homo prostheticus* is the smartphone as it constantly accompanies billions of people in their everyday and it is young people's interaction with these devices that are most frequently researched and discussed (Marchant and O'Donohoe 2019) as well as scrutinised. All participants mentioned the importance of their smartphones when describing their daily routines, which evoked a range of feelings and thoughts, from the phone simply being helpful to being ashamed of spending too much time with it. Furthermore, as will be discussed in Chapter 4, the presence of digital technologies was often framed as a threat to young people's socialisation and their health, disrupting 'natural' developments of the human body and mind. This showed that the idea of nature and culture as two separate spheres is still deeply engrained in how technology is commonly seen. However, instead of falling into techno-deterministic framings, where technology does something to us, I interpret it as a flux of co-creative practices that are expressed as an assemblage. The argument that human social life is always intertwined with non-human presence and vice-versa is essential to how I have used assemblage theory throughout this thesis. Rather than seeing digital technologies as passive and neutral machines, I see them as embodiments and actors, who do not necessarily possess intention but should be closely considered when thinking about memory practices.

Assemblages in Deleuze's and Guattari's "A Thousand Plateaus"

An *assemblage*, which is called *agencement* in the French original, is an ontological concept that has greatly affected the social sciences and humanities. It also influenced the so-called 'ontological turn' within anthropology. Together with Bruno Latour's Actor-Network-Theory (ANT), Gilles Deleuze and Félix Guattari's assemblage theory expresses a relational view of the world. According to these approaches:

"[…] action results from linking together initially disparate elements. Both emphasise emergence where the whole is more than the sum of its parts. Both have a topological view of space, in which distance is a function of the intensity of a relation. And both underscore the socio-material i.e. that the world is made up of associations of human and non-human elements." (Müller and Schurr 2016, p. 217)

Hence, ANT and assemblage theory have a similar ontological view and can be applied in

conjunction. Nevertheless, ANT's focus on networks alludes to more continuity within such relations. I find that assemblage theory suits the scope of this research better, because it favours instability and flux over stable networks and has a more future-oriented outlook with openness to the unexpected (Müller and Schurr 2016, p. 219), which makes it suitable for researching ever-changing arrangements of people and digital technologies.

Due to its popularity, there are several reiterations and interpretations of what an assemblage is and how its expressions are embodied. Instead of applying other readings of Guattari's and Deleuze's work, for example, Manuel DeLanda's (2016) influential systemisation of the much more dispersed and fragmented original text, I have decided to consider the initial authors. Hence, I am presenting here my reading of *A Thousand Plateaus* where Deleuze and Guattari first laid out their theory. Of course, my rendering of this theory for the theoretical framework of this thesis is only one way of interpreting it. I will focus on the parts of their writing that are most useful for my research, linking it to the components that I have identified as central to this thesis such as youth, mobile devices, computers, memory and social media platforms. These components are related but not connected, always individual and collective at the same time. Compared to structuralist social theories which aim to understand complexities by organising them into structures or systems, assemblage theory speaks of components that are related through a shared desire and shaped by it. These components are also referred to as *multiplicities,* which form a central element of Deleuze and Guattari's argument. A multiplicity is not closely defined by the authors as they say it is *neither a subject nor object* but describes anything that can exist, which they express as *articulations*. Multiplicities of an assemblage are inserted and transformed in other multiplicities, meaning that one assemblage always stands in direct contact with other assemblages. According to Deleuze and Guattari "[a]n assemblage is precisely this increase in the dimensions of a multiplicity that necessarily changes in nature as it expands its connections. There are no points or positions in a rhizome, such as those found in a structure, tree or root." (Deleuze and Guattari 2019, 1987, p. 7). The malleability of assemblages is, therefore, one of its key characteristics.

Deleuze and Guattari further use the analogy of the rhizome to describe the relationality formed by the assemblage. To contrast the rhizome, which is not based on structures or hierarchies, the image of a genealogical tree is used. A tree's shape defines hierarchies based on a trunk that functions as a centre and its branches and twigs that are linked to it. From the image of the tree

with its powerful centre that controls everything around it and without which the other parts could not exist, Deleuze and Guattari derive the aborescent[4] system. A system built on principles that are characterised by binaries and dualisms.

"Arborescent systems are hierarchical systems with centers of significance and subjectification, central automata like organized memories. In the corresponding models, an element only receives information from a higher unit, and only receives a subjective affection along preestablished paths." (Deleuze and Guattari 2019, 1987, p. 16)

A rhizome on the other hand functions without such vertical power structures. It consists of heterogeneous *articulations* that are constantly reshaped. The reshaping can be done by internal or external factors. Notably rhizomes, and therefore the assemblage keep on *becoming* which makes them so different from using systems or structures to describe reality. The rhizome, and the assemblage, for that matter, grows new nodes in unpredictable directions. Every growth embodies the whole rhizome and not just parts of it or is subjugated by the centre, hence, there are no hierachisations between its parts, which are not identical in shape and form or their quality. Therefore "[a] rhizome is not amenable to any structural or generative model" (ibis:11). Deleuze and Guattari further summarise that:

"[…] unlike trees or their roots, the rhizome connects any point to any other point, and its traits are not necessarily linked to traits of the same nature; it brings into play very different regimes of signs, and even nonsign states. The rhizome is reducible neither to the One nor the multiple. […] It is composed not of units but of dimensions, or directions in motion. It has neither beginning nor end, but always a middle (milieu) from which it grows and which it overspills."(ibis:22)

The non-centralised nature of assemblages is what I found most intriguing and helpful to my research and the theorisation of memory modalities that I will further discuss in Chapter 8. The emphasis on heterogeneity allowed me to place equal importance on human and non-human actors in exercising memory practices. This conceptualisation further allowed to break away from the idea that technology and humans exist separately, act separately and create separately – one supposedly dominating the other. As stated in *A Thousand Plateus* "What is at question in the rhizome is a relation to sexuality – but also to the animal, the vegetal, the world, politics, the book, things natural and artificial – that is totally different from the aborescent relation: all manner of

[4] *Aborescent* describes the form of a tree in French. The word is derived from the Latin word *arbor* and leaned on the French *arbre*.

‘becomings.’ (ibis:22). This idea provided not only an important conceptual framing, but also the corresponding vocabulary to express my research findings. The assumption that assemblages are in constant flux was influential on how I viewed digital communication and data flows. Data also consist of related nodes that are constantly produced, recorded, dispersed, gathered, connected and disconnected again depending on where they form an assemblage.

Memory is also an important factor in which these becomings are addressed by the authors. Using the analogies of the tree and the rhizome again, the tree stands for long-term memory as seen in family or society. The rhizome on the other hand is defined as short-term memory which acts “at a distance, come or return a long time after, but always under discontinuity, rupture, and multiplicity” (ibis:16) and includes forgetting as a process. The focus on forgetting as an important factor in which an assemblage manifests itself has been intriguing to me and further formed my interest in investigating forgetting as part of the same process that constitutes remembering. Forgetting as described by Deleuze and Guattari is not incidental but rather the norm. It is also important since it allows to reshape and reorganise how and what we remember. As I will explain in detail in Chapter 6, periodical deleting of images from social media profiles is an important practice for young people that ruptures and reshapes their online persona for the gaze of others. Deletion is not equivalent to forgetting, but carries the intention of being able to forget something in the long run.

In addition, Deleuze’s and Guattari’s discussions of the constant territorialisation, deterritorialisation and reterritorilisation of assemblages informed my thinking about the dispersive character of digital memory practices. Territorialisation occurs when assemblages are coming together and expressed in their current territory. This is not necessarily a geographical territory, but rather the expression of several articulations. Deterritorialisation is the process when the assemblage undergoes its *metamorphosis,* it changes shape and articulations are being disconnected. Reterritorialisation describes the process in which new articulations are made and form new assemblages or territories, but can also be shaped by previous iterations of an assemblage.

Deleuze and Guattari further refer to machinic assemblages as physical materialisations that resemble an organism, whereas collective assemblage of enunciation addresses the non-corporeal expressed through language and action. However, these two assemblages are not strictly separated

or hierarchised, but collective assemblages are working within machinic ones. The interplay of these types of assemblages has been particularly influential when thinking about invisible actors like recommender algorithms on social media platforms. These have a physical presence in the world through the computer hardware on which they reside, but also come into existence through the social norms and ideologies that humans have embedded in them. Now their own actions are also reproducing the larger collective assemblage of enunciation, for example when certain content on Instagram is hidden, because it has been deemed inappropriate by the people who created the algorithm.

Looking at all these movements and disconnections, relations and reformations, it can be difficult to understand what brings an assemblage together in the first place. Deleuze and Guattari speak of a shared desire that functions as the glue between these elements. They conceptualise desire as a worldly and productive force that encourages the formation of assemblages. "The rationality, efficiency, of an assemblage does not exist without the passions the assemblage brings into play, without the desires that constitute it as much as it constitutes them."(ibis: 465). I have interpreted this desire as the factor that brought the elements of my research together. For example, young people have the desire to communicate with their friends through memory, algorithms have the desire to recommend content to users, CEOs of technology companies have the desire to create new products and so on. Thus, all these elements are brought together by desire and stand in relation to each other as they form the assemblage, even if they never directly interact with each other.

Operationalising assemblage theory for the study of digital memory practices

In addition to Deleuze's and Guattari's original work, my understanding of assemblage theory has also been influenced by other scholars. Particularly assemblage theory application to the study of data flows and ethnography has affected how I brought assemblage theory into conversation with my research. Thus, I have chosen the following authors because they specifically address flows of data, that are central to the memory making of my participants. In his article on the "global assemblages of digital flow", Graham Pickren (2018) points to the material conditions on which big data depend. He focuses on the role of data centres and how these are placed in only a few key geographic landscapes that are often part of economically struggling communities, such as former mining towns. The growth of digital media, thus, has 'real' material i.e. ecological, economic and

social implications beyond what is happening online. He further lays out how critical data studies as an emerging field aims to unearth these processes. Pickren's contribution strengthened my interest in understanding digital media beyond what appears on a screen and encouraged me to question which parts of the memory practices that I investigated, contain hidden aspects of the assemblage and whether they have been made invisible intentionally.

Besides Pickren's explorations of critical data studies, I found Deborah Lupton's (2016a) analysis of Donna Haraway's work, and of Annemarie Mol's ideas on eating and the body, helpful. Lupton emphasises that not enough research has been done into data practices of everyday life. She also points out that digital data are lively in many ways and not just pieces of information. Not only do they tell stories about human and non-human life, but constantly generate, regenerate, purpose and repurpose these stories through which they are creating potential impacts for human and non-human life. Moreover, it is humans themselves who learn from these stories in flux (Lupton 2016a). Lupton also speaks of the importance of acknowledging the mutual dependency between digital media and people within a digital data assemblage. Applying Annemarie Mol's theory on eating and the body, Lupton speaks of eating digital data. In the digital data-human assemblage the interactions between human and non-human produce new identities and bodies that have material effects on how people live and understand their lives. Like Deleuze and Guattari, Lupton evokes a sense of embodiment, relationality and flux that I have found useful in developing my thoughts. Furthermore, I wanted to shortly mention sociologists Aragona's, Felaco's and Marino's (2018) work on the politics of data assemblages that highlight the role of big data in policy making. The authors have looked at three European centres dealing with statistics and big data and conducted interviews with experts. As the authors state: "Unpacking data assemblage means delving into various aspects of three main domains: things (infrastructures, devices, techniques, etc.), language (code, algorithms, etc.) and people (scientists, users, etc.)". Besides, this study exemplified how assemblage theory can be practically applied to complex issues involving often hidden or invisible technological actors. I found their empirical study helpful in identifying non-human actors (in this case mainly software and platforms) that would hinder humans in the construction, management and analysis of data (460).

When applying assemblage theory to the study of memory practices, I see them as part of a wider assemblage in which digital media plays a crucial role. I am using assemblage theory here to frame the memory making of young people along the material and the relational. I have thus considered

the object of this study as time-limited, not fixed or structured in a systemic way, but rather changing in nature where specific configurations are always being territorialised, deterritorialised and reterritorialised to use Deleuze and Guattari's terminology here. Thinking of large processes in terms of assemblages aims to capture always emergent conditions of the present (Marcus and Saka 2006). In this sense young people, devices, social media platforms, algorithms, practices, physical objects, photographs, audio-visual media and memory are related articulations of these wider processes. Humans have their own cognitive memories, but also use digital media as mnemonic aids, that in turn influence and shape their personal memories. For example, looking at a childhood picture can bring back a certain memory, but also actively change what we remembered before looking at the picture. One might have remembered it was a sunny day, when in fact the weather was rather cloudy. As mentioned at the beginning of the chapter, digital media is often conceptualised as either a neutral tool where the outcome fully depends on human usages or as technological dominance where humans lose all agency. Therefore, I propose that using assemblage theory can break this dualism and provide a theoretical framework that accounts for the complexities of human and non-human relationships. In this sense youth, digital media practices and memory practices are overlapping and part of a memory assemblage. This arrangement goes beyond memory and produces communication, politics, money flows, norms and identities as well. Nevertheless, it is crucial to not romanticise this interplay. The presence of digital media can build relations of the social but equally disrupt them (Reading 2020). For example algorithms filter which content is shown to users on social media platforms. They primarily enforce the commercial interests of social media companies and favour larger and more 'influential' accounts over smaller ones. Therefore, the range of what can be seen by others is limited and regulated through them. This frequently disconnects people who do not adhere to a company's commercial ambitions.

As shown in the discussion of *A Thousand Plateaus* speaking of assemblages frees the objects and subjects of study from structure and hierarchy. Power is distributed and only momentarily accumulated in different parts of the assemblage. When connecting this argument to my research, I see power as an important element that needs to be differentiated. While there appear to be large power imbalances between how the public can directly influence or be involved in the development of digital media that ultimately impact important parts of their lives, as emphasised by Lupton and others, it is inaccurate to see humans only as victims. Therefore, I used this horizontal view of power to look at the strategies that people develop to get around the limitations

set by platform owners and device manufacturers. Whether these strategies have an actual effect on redistributing power is questionable. They are, nevertheless, expressions of attempts to reclaim power.

Applying an assemblage approach can aid in countering the common assumption that the online world is somehow not real and detached from 'real life' which is often implemented by marketing terms like the 'cloud' or wireless. These terms have greatly influenced people's ideas about digital media suggesting that it is ethereal and maybe even metaphysical. By eliciting the materiality and bodiliness of digital media, I have further put my attention towards smartphones, but also personal data storage units like hard drives and cloud services, where digital memory objects are uploaded to be cared for in the future. While acknowledging that it is unlikely to ever look at all parts of an assemblage, particularly within the constraints of a PhD thesis, this approach allows for a more complex and layered understanding of personal memory practices and digital media.

Conclusion

This chapter has addressed how the understanding of technology and its role in social life have previously been discussed. While approaches like *technological somnambulism* and *technological determinism* are still present in the discourse around the impacts of technology, scholars have developed a more relational approach. Technology is so embedded in human life that its relationship to our social lives should be acknowledged as such. This relationship is not a one-way street, but rather forms a co-dependency reminiscent of Donna Haraway's cyborg analogy. Furthermore, challenges of the increased datafication of everyday life, where essential processes and components involved in our daily digital experiences remain hidden, are suitable to an assemblage approach.

Assemblage theory is a useful conceptual lens when studying digital media and memory making. Its flexibility in describing complex processes within a heterogeneous world where categorising elements within these processes can often lead to reducing them. By thinking about my research in assemblage terms I was able to identify relations between seemingly unrelated elements that I have encountered during the fieldwork process. As demonstrated, assemblage theory has several advantages when it comes to understanding processes facilitated by digital technologies. Nevertheless, it also complicates the field of enquiry as mapping an assemblage can easily become

too wide for the scope of doctoral research. Therefore, reflecting on when to ‘weave’ together relations and connections between different components and when to ‘cut’ them has been very important in the framing of my research design. In the following chapter, I will further elaborate on my research design and outline the methods I have chosen to explore and further define the articulations that are composing the assemblage emerging in this study.

Chapter 3: Methodology

In addition to the main research question of "What are young people's practices of creating, sharing, accessing and maintaining memories in connection to digital media?" choosing an assemblage approach poses several questions. How does one study memory assemblages and the specific forms they take on within memory practices and objects in practice? With the border-crossing capabilities of digital media where should the boundaries of an ethnographic study be drawn? A research project that investigates partly invisible actors runs into several methodological questions of how to study something as fleeting as memory and digital media, which are both in constant flux. In this chapter, the research design and methods chosen to answer these questions will be outlined and discussed in detail.

The young participants of this study can be grouped into two based on age and the methods used. The first group consists of eleven schoolchildren from East London aged between 13 and 14. With this group, I worked in the setting of a digital storytelling workshop to observe participants' interactions with digital devices and have conversations with them while they turn their personal memories into stories. Because memory making is difficult to be observed as it happens, I chose this methodology to create an environment that was focused on narrating memory within the organised and structured environment of a workshop. As I will explain in further detail in this chapter, digital storytelling is suitable for working with children because it offers a creative and playful outlet for participants, while the researcher can engage with them in the process. The second group consists of seventeen individuals 19-27 years old. I used semi-structured interviews to contextualise their memory practices and understand their relationship to digital media. Furthermore, I utilised photo elicitation to discuss specific memory objects, primarily on their Instagram accounts. The participants in this group were from several German cities or living in London in the UK.

Participants from both groups came from various economic, class and cultural backgrounds and held various religious beliefs, as many were part of a diaspora. This heterogeneity was purposefully chosen, to explore variations in the digital memory practices of young people. The first group of participants was recruited by reaching out to a school in East London, which offered to hold the workshop as part of their extracurricular activities. The second group was recruited by

sending requests to youth groups, which then quickly transitioned into recruiting through snowballing.

The research design of this study was greatly informed by digital ethnography and its principles, which focus on reflexivity and fluidity throughout the research process. The chapter will discuss how I set boundaries to the ‘field’, placing the methodology into long-standing discussions around digital ethnographic fieldwork and reflections on the construction of ethnographic field sites. This framing forms the basis of how I defined the field beyond a physical locality to ensure its feasibility, timing and rationale. The research design also reflects on developments in the growing sub-field of digital anthropology and aims to contribute to it.

Furthermore, the chapter lays out the methods I have applied and provides the reasoning behind choosing them. The research was mainly conducted through the qualitative methods of participant observation, semi-structured interviews, digital storytelling and photo elicitation. In addition, grounded theory and principles of digital anthropology were used as analytical tools. Since the fieldwork started at the end of 2019 most of the data collection period coincided with the outbreak of the Covid-19 pandemic in 2020, which started to heavily affect European countries and other parts of the world in March 2020. Hence, the chapter will also outline how this situation has impacted the fieldwork and what strategies I have used to mitigate arising challenges.

Digital ethnography

This study has oriented its methodological framework on previous works of digital ethnography. In anthropology, two approaches on how to investigate the digital have been dominant over the last two decades. The first approach proposes that digital media should be explored on its own terms by conducting ethnography purely online and researching online communities and their culture like one would a physical locality. Therefore, this view expresses the idea that distinct virtual cultures exist that should be studied separately from the offline. In his ethnography on the multimedia platform Second Life, Tom Boellstorff studied the platform by using a virtual avatar and stated, “[t]here do exist distinct cultures in virtual worlds, even though they draw from actual-world cultures. This is why researching them ’in their own terms’ is now one viable methodological strategy.” (Boellstorff 2010, 2008, p. 18). Although acknowledging that virtual cultures are not free from offline influences, he further explains his methodological choice:

“If one wants to study collective meaning and virtual worlds as collectivities exist purely online, then studying them in their own terms is the appropriate methodology, one that goes against the grain of many assumptions concerning how virtual worlds work.” (61). While Boellstorff mainly wants to break the distinction between the offline world being ‘real’ as opposed to a fake virtual one, the second methodological approach frequently used by anthropologists assumes that digital media are inevitably intertwined with offline activities and essential parts of people’s everyday lives. Thus, it is important to pay attention to the relationship between them (Wilson and Leighton C. Peterson 2002; Coleman 2010). These two approaches are not opposing, but emphasise different aspects of the digital. Under this assumption, many ethnographers have also increasingly taken notice of the materiality of the digital and its embodiments in people’s everyday lives. As Miller and Horst put it “[m]ateriality is thus bedrock for digital anthropology, and this is true in several distinct ways (…)” (Miller and Horst 2012, p. 25) namely the materiality of digital infrastructures and technologies, the digital content and digital context. For example, digital infrastructures (e.g. servers, transmission masts and devices) that enable the internet and access to it, are often applied to analysing digital media’s effects on social, economic and political life (Coleman 2010). In addition to these two dominant approaches, concepts of co-habitation (Bluteau 2019) and auto-ethnography (Dunn and Myers 2020) are complementing ethnographic research of ‘the digital’. These approaches highlight the role of the researcher as a participant and immersed individual, who uses the same technologies as participants for their fieldwork and thus emulates and adopts their practices for a deeper understanding.

For the purposes of this study, which looks at the memory practices of young people, an approach was chosen that could investigate memory and media practices, online as well as offline and integrate the role that digital infrastructures play within memory assemblages. Therefore, an approach solely centred on digital or online cultures was not suitable. Instead, I focused on how these technologies are engrained in a growing number of everyday life activities and how they are linked to memory. Such an approach acknowledges that people’s everyday life practices are also shaped by non-human actors as described in Chapter 2. Not everything young people post on social media is intended to become a memory. However, what makes this difference? Understanding the media practices that are part of everyday tasks, for example, looking for the way on Google Maps, was important to distinguish them from media practices where memory is a distinct element. Hence, a particular emphasis during fieldwork was to investigate the influence of these

technologies in shaping daily routines and habits. This emphasis brought out the importance of the smartphone and other devices through which the internet is interacted with. While social media content can be analysed after its production, the practices of creating such content, the intentions behind them, the reasons for choosing to share a memory as well as its conceptualisation before sharing it, remain invisible when only looking at, for example, an image on Instagram. Besides, human and non-human interactions are potentially lost when only focusing on social media. Particularly, the smartphone[5] and the relationship young people have with it directly influence memory practices, such as the ways in which moments are captured in a photograph. Thus, a more holistic view of the 'digital' was adopted that values its materiality in the form of digital devices. Nevertheless, it should be acknowledged that there is tremendous value in conducting ethnography purely through the 'virtual', when suitable to the research question.

Offline memory practices have not lost their value because of technological changes, but are sometimes even more cherished and complemented by online practices – I will speak in more detail about this in Chapter 8. Therefore, looking beyond what people do online is imperative to understanding nuances, motivations and meanings that influence what is created digitally. In addition, engaging with young people beyond social media supported my understanding of how participants' life worlds changed due to the Covid-19 pandemic. The pandemic forced many ethnographic researchers, including myself, to rethink their research strategies, making methods and principles of digital ethnography prominent choices, as they were, in many instances, the safest and only option to interact with participants. This extraordinary and unprecedented situation highlights that the methods used here and digital ethnography in general, are likely to gain more importance for field-based research projects in the next couple of years (Scerri et al. 2020). As for this research project, having adopted a reflexive and flexible approach from early on, as proposed by Pink et al. (2016) was helpful in adapting the methodology and research design under these extraordinary conditions.

Constructing the field for studying digital memory making

As the investigation focuses on memory practices, I wanted to understand where young individuals

[5] The relationship between the smartphone and other digital devices will be analysed in more detail in Chapter 4.

would deploy differing, overlapping or identical memory practices. To explore underlying practices in their various expressions, I sought to speak to participants from diverse backgrounds to get an overview of the similarities and differences that constitute these practices in a digital context. Nevertheless, working with such a heterogeneous group of people posed challenges to frame and gain access to a field site that was not fixed by a locality, a 'group of people' or a shared identity beyond youth. I applied several sampling strategies, by contacting youth organisations and charities working with young people and a secondary school in East London. In addition, once a relationship with the participants was established, I asked them to put me in touch with friends and acquaintances that might be interested as well. Hence, participants were not organised around locality or ethnic belonging as is common in anthropological studies. This emerging heterogeneous group of young people showed that while their education, religion, economic situation, nationality, culture, sexual orientation and gender differed greatly, they all relied on the same digital infrastructures[6]. Therefore, I did not focus on what made participants' practices particularly German, working class or urban, but instead focused on the cultural role of youth as social shifters (Durham 2004), as discussed in Chapter 1.

Additionally, the boundaries of this study had to incorporate not only the participants and their practices, but also the devices and online services that were part of their memory making. Thinking about the interaction between young people and technologies also required building more feasible field borders that did not rely on locality. For ethnographic researchers, the openness of the digital field can provide challenges in finding and defining boundaries to the manifold of participants that can potentially be reached, colliding lifeworlds and the multi-faceted cultural and socio-economic aspects that constitute life online. Thus, my theoretical approach as described in Chapter 2 guided my methodological choices.

The 'field' in anthropology is a central concept surrounding its main method of ethnography. During the emergence of anthropology as an academic discipline at the end of the 19th and beginning of the 20th century the 'field-site', a term adopted from the natural sciences, was used to distinguish anthropology from sociology and make claims to be more 'scientific' in its approach. The field provided a spatial boundary within which subjects of anthropological enquiry could be

[6] Particularly the dominance of social media platforms and communication services owned by Facebook i.e. Instagram, WhatsApp and Facebook itself, and devices produced by Apple or Samsung highlight this point.

studied, while at the same time linking the spatial metaphor of the field site to a culture that could be framed within set spacial limits as opposed to dispersed and intermeshed cultural realities (Coleman and Collins 2007, p. 6). As Gupta and Ferguson (1997) point out, the notion of the 'field' has not been conceptualised in much detail and the term remains, until this day, nebulous. This emphasises a particular 'mystique' about fieldwork within anthropology (Gupta and Ferguson 1997). Gupta and Ferguson indicate the constructiveness of 'the field' and that it is:

"[…]a clearing whose deceptive transparency obscures the complex processes that go into constructing it. In fact, it is a highly overdetermined setting for the discovery of difference. To begin with, it is the prior conceptual segmentation of the world into different cultures, areas, and sites that makes the enterprise of fieldwork possible." (Gupta and Ferguson 1997, p. 5)

Gupta and Ferguson further frame the construction of the field as essentially being a territorialisation with participant observation as the principal method.

As shown in the theoretical framework, territorialisation, can happen independently from a locality. Thus, focusing on one geographical place has been challenged over the past thirty years as globalisation and the flow of people, commodities and ideologies have increased (Appadurai 2010, 1996) and put the 'field' as a fixed locality and object of anthropological enquiry into question. George Marcus's (1995) influential work on multi-sited ethnography proposes that instead of limiting ethnographic research to a specific confined geographical location one ought to 'follow' – 'following' the people, the thing, the metaphor, the conflict or the story, plot and allegation. According to Marcus, multi-sited ethnography is able to make connections among distinctive discourses and maps the wider field of anthropological research.

"In contemporary settings, what is shared is the perception that local realities are produced elsewhere through dispersed relations and agencies, generating a multi-sited imaginary that is practical for the subject and that is a found design of a mobile ethnography for the anthropologists." (Marcus 2011, pp. 19–20)

While multi-sited ethnography highlights the constructed nature of anthropological field sites illustrating that wider global processes need to be taken into account in order to understand contemporary everyday life, this approach still heavily focuses on a specific group of people that share a set of rather closely defined commonalities. I also wanted to mention Ayo Wahlberg's ethnography on sperm banks in China, where he proposed the term 'assemblage ethnography'. Leaning on George Marcus's 'multi-sited' ethnography, which focuses on multiple localities,

Wahlberg's 'assemblage ethnography' looks at the "*configurations* found within infrastructures, assemblages, complexes, or *dispositifs* on the part of the ethnographer" (Wahlberg 2018). He also emphasises the importance of relations between "daily micro-practices" and socio-historical processes (Wahlberg 2018). Wahlberg's ethnographic and empirical approach has affected how I designed my methodology and research.

However, as Gregory Feldman (2011) criticises multi-sited ethnography continues to focus on the shared localities of individuals. Instead, Feldman proposes to look at how "[t]he apparatus organizes social relations between disconnected actors through abstract, mediating agents that replace direct social connections." (378). Feldman reminds us of the importance to distinguish clearly between connections and relations (379). To bring this argument back to the heterogeneity of my research participants, the informants might not have been connected to each other and never met face-to-face, but they stand in relation to each other through the technologies they use and their mediated memory practices. The methodology and boundaries of this study travel along relations that are formed between youth, digital technology and the memory practices that bring them together. Focusing on the practices conceptually combines non-human actors like mobile devices, online platforms and internet infrastructures. In a globalised world, social relations cannot be reduced to space and time and cannot be easily perceived by traditional participant observation (Feldman 2011). Seeing the making of memory as an assemblage that includes digital media, frames the field as distinct social relations and allows a translation of this concept into methods and fieldwork practices, offering a practical way of researching assemblages.

Essentially ethnographers interlink and separate networks to make the field and the complexities of life they represent approachable and comprehensive for research. I had reached my personal cutting point of conducting fieldwork when it crystallised that despite the various geographical locations and cultural backgrounds the digital affordances and digital media practices my participants used were defined by similarity rather than differences. After this cutting point, I turned to the analysis of the materials I had gathered.

Methods

The methods of this study were applied during different stages of fieldwork. The fieldwork lasted about 12 months. As the graph below shows, the digital storytelling workshop took place from January to February 2020. Online and offline participant observation took place between January

2020 to January 2021 with interruptions in March 2020 due to the outbreak of Covid-19. The first semi-structured interview took place in February 2020 with the last conducted in December 2020. The data analysis including interview transcriptions and coding was a continuous process starting in January 2020 until July 2021.

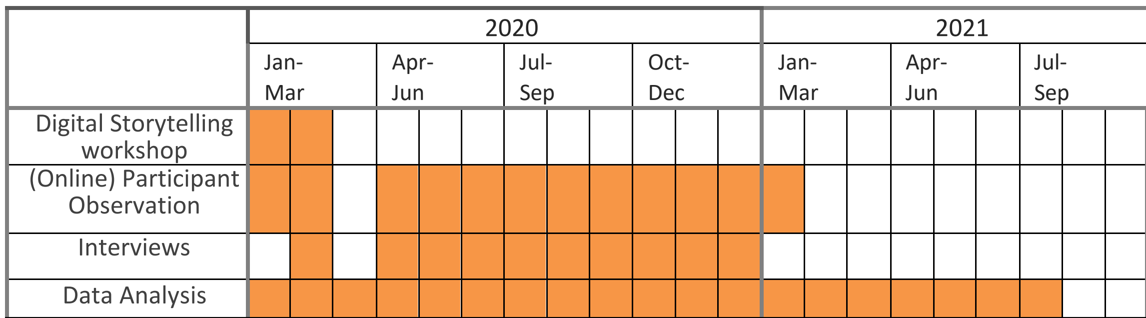

Figure 1: Fieldwork timeline

Digital Storytelling

Digital storytelling is an arts-based research method with roots in community development and therapeutic settings (Jager, A.D et al. 2017). In its current form, research participants are asked to use digital media to produce short 2-5 minute audio-visual clips guided by their own experiences, creative decisions and narratives. This participatory framework can be useful when involving individuals and communities in the research process and has advantages in involving children and young participants due to its playfulness. Aline Gubrium and Krista Harper (2016) see digital stories as identity performances where the participants conceptualise and create their own narratives while reflecting on their subjective positions and can be used by researchers to explore sociocultural concepts and experiences (Gubrium and Harper 2016, p. 125). Digital storytelling workshops follow a distinct seven steps structure:

Script Writing

1. Owning your insights
2. Owning your emotions
3. Finding the moment

Storyboard

4. Seeing your story

Voice-over

5. Hearing your story

Editing

6. Assembling your story

Sharing

7. Sharing your story

I have conducted a digital storytelling workshop at a secondary school[7] in East London with eleven pupils in year 9 aged between 13-14 years old. Using this experimental method, I intended to observe how young people engage with digital media and devices when revisiting their personal memories. Therefore, children were free to choose any memory they wanted to talk about and to turn it into a story. In its most common structure, digital storytelling workshops are organised in 3 –full day slots of about 8 hours a day (Gubrium and Harper 2016). However, in order to adapt a digital storytelling workshop to the school's needs and time schedule of the students I did not follow the usual length and opted for six 100-minute sessions instead and asked students to work on tasks like editing or script writing at home to be prepared for the next meeting. The instructions given to the pupils followed the seven steps of the digital storytelling method. I introduced these steps to the students in a presentation and handed out a guide with the steps in plain language.[8]

Pupils started by writing a short script where they were encouraged to reflect on their emotions, the meaning of their story and important moments within the narrative. The children exchanged their ideas with friends and I went through the classroom to speak about their ideas. The script writing was followed by creating a storyboard, collecting or creating footage and images, recording an audio-voiceover and lastly editing the film. iMovie was used as an editing software since it was pre-installed on the iPads the children were using for their regular coursework. Moreover, iMovie is not bloated with features and many pupils had used it previously.

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[7] In the English school system, secondary schools are visited by pupils aged 11-16 which mainly aims to prepare children for their respective career prospects and higher education.

[8] Please see Appendix D for the handout explaining the workshop structure and 7 steps of digital storytelling given to the students.

During the workshop, I used participant observation and had conversations with the children about their views and usages of digital technologies. Through these conversations, I gained insight to their reflections on the meaning of the narratives they worked on and their views on the overall process. Pinpointing the moment in which memory happens or observing the memory making is nearly impossible, but the workshop accommodated an insight into young people's media and memory practices. Furthermore, giving a digital storytelling workshop as part of the students' project syllabises offered an entry point to the school and established a reciprocal relationship, between my research needs and the educational needs of the school. Digital storytelling views the position of the researcher as a person entering 'the field' to extract data for their research critically. Implementing the method, thus, incorporates the aim to do research 'with' rather than 'on' participants as well as to flatten hierarchies between researcher and participants (Jager et al. 2017). I was pleased that the workshop was added as part of their general curriculum and allocated to a timetable slot reserved for non-academic activities like dancing, football or other creative activities. This also meant that the workshop did not create additional work for the pupils and was part of their ordinary coursework and school day. Although a viewing of the finished films amongst students was initially planned, the different paces in which pupils worked meant that not everyone was finished with their films in the last session. A second instalment of the workshop was not realised due to restrictions caused by the outbreak of Covid-19 in March 2020. Instead, I refocused my research on older participants and more on interview-based research methods.

While largely beneficial to this research, there were drawbacks to conducting the workshop in a school setting, particularly regarding digital storytelling's aim of horizontal hierarchies. I have since taken the idea of co-producing knowledge with a grain of salt. Because of my German residence, I ran into problems going through a Disclosure and Barring Service (DBS) check, which in the UK looks at potential criminal records. Failing this check, due to problems transferring records between Germany and the UK, I was not allowed to engage with the children without a teacher present. Therefore, I was escorted in and out of the school premises for each session and had at least one teacher by my side most of the time, while being in the school building. Engaging with the children outside the classroom was, hence, not possible. I could neither communicate with them outside the workshop to follow up on assignments nor to have further conversations with them or their parents.

In addition, due to the classroom setting, I frequently slipped into the role of the teacher. Despite

offering to be called by my first name on several occasions, the children kept on addressing me formally as ‘Miss’. Following the school norms, children had to ask for permission, e.g. to leave the classroom to get water or to use the toilet. Therefore, breaking the hierarchies imposed through age and ‘rank’ was very difficult, if not impossible. Besides, although I explained at the beginning that the workshop was part of a research project, the pupils’ interest in it was limited and they continued to perceive it as part of their usual curriculum and me as part of the school staff.

Participant Observation

I have used participant observation online as well as offline. After each digital storytelling workshop session at the school, I recorded my observations through a mix of voice notes and written field notes. Apart from occasional note-taking during the workshop, I found writing down observations afterwards more beneficial, because it avoided the disruption of discussions with pupils and I could fully concentrate on engaging with them. Since not all parents allowed the collection of their child’s data, I refrained from audio recording the sessions, which would have not been practical also due to the size of the classroom and the group encompassing eleven individuals. In addition, the pupils were often quite energetic and frequently asked for assistance, which did not leave much time for notetaking during the sessions. Through participant observation, I was able to get a better understanding of how pupils handled digital devices, how their private smartphones and the tablets they use for their school work fulfilled different purposes and were differently framed within the school and its internal rules, which generated additional conversations about digital technologies.

The decision on which devices and social media platforms to include in this research was led by which digital media my participants used in their everyday lives. Therefore, instead of wanting to study Twitter, Facebook or Instagram, I followed where my participants were taking me. As a result, online participant observation was mainly conducted on Instagram and only occasionally on Facebook, as my participants, like their peers, were no longer active users of Facebook. I will discuss the reasons for this in Chapter 5. The ordinariness and increased accessibility of digital technologies around the world has changed the ways in which ethnographers conduct participant observation.

I have used my personal Instagram account and created a new one for Facebook. Both accounts

clearly stated my intent of researching how young people use digital media for their memory work, my status as a PhD researcher and a link to my profile on the Participatory Memory Practice (POEM) website. By providing this information, I wanted to make potential participants aware of my presence and give them simple options to find out more about me as well as the research project.

During the 12 months of fieldwork, I spent up to an hour on Instagram and Facebook every day to observe what my participants shared throughout their days. I also made field notes on this, added reflections and captured images that might be interesting for later purposes. Although I had already planned to conduct online participant observation, this method became a much more crucial element due to the pandemic. Being there *remotely* (Pink et al. 2016, p. 134), has allowed me to gain more insight into their everyday lives and digital media practices than a classical locality-based participant observation might have offered. In addition, I gained a better understanding of the norms, aesthetics and social conversations permeating social media, as discussions on the platform often revolve around 'online toxicity'[9] and advice on how to healthily engage with others online. In addition, the Covid-19 pandemic and Black Lives Matter protests were major events in 2020 that were dominating posts, stories and conversations of participants and Instagram in general. These events highlighted that the platform often functions as an important source of information and a way to engage with these global issues.

Interviews

Throughout the course of my research, I have conducted seventeen semi-structured in-depth interviews with participants aged 19-27, which differed in length between forty-five minutes to two and a half hours. I used interviews to contextualise the usages of digital media in young people's everyday lives, but also to better understand their views on these technologies. Furthermore, the interviews revealed young people's motivations to share memories with others online and gave more insights into their practices. Three of these interviews were face-to-face. Due to the restrictions resulting from the global Covid-19 pandemic, the majority had to take place online to protect informants and myself from transmission. To put participants more at ease with

[9] Online toxicity refers to negative social behaviour towards others online, this can include trolling, hate speech, bullying and harassment.

the setting of online interviews, I allowed more space for chitchat and gave participants the opportunity to ask some direct questions back to me. I predominantly used the video conference software Skype and Zoom for the interviews. With Covid-19, participants were already familiar with these ways of communicating to speak with friends and family whom they could not physically visit or to work and online education. Video conferencing eased the establishment of rapport and the expression of thoughts through body language, as most participants had their video on while talking. Interviews centred on participants' daily use of digital media, their memory making practices and their opinions concerning youth and digitalisation. Nevertheless, online interviews have their own challenges. Internet connections were sometimes unstable, phone calls interrupted the conversations or the doorbell suddenly rang while participants spoke to me from their bedrooms, kitchens or living rooms.

As an alternative to video conference software, messenger services provided by social media platforms or on forums can also be used for interviewing participants (Bluteau 2019; Coleman 2013). However, I have avoided using such integrated services for these purposes and only used them to get in touch with informants, send consent forms and arrange interview dates. I found these services to be problematic for speaking with participants about personal issues. Not only are conversations asynchronous and time-intensive for participants as they require a fair amount of typing or the sending back and forth of audio messages, but many messengers, including the one on Instagram, are not end-to-end encrypted and thus do not provide enough protection of participants' privacy and data.[10]

To involve participants more in the research process and to give them a chance to revisit what they said during the interviews, I forwarded the transcripts to them upon completion. However, it is unclear to me how many actually read these quite lengthy documents. Only in two cases, I discussed these transcripts together in casual conversations with participants. This offered me another opportunity to ask questions that came to mind while listening back to interviews and explore certain issues on a deeper level.

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[10] Facebook has recently introduced end-to-end encryption to what it calls 'Secret Conversations' in 2017. However, this is not a default option and does not include group conversations; https://www.forbes.com/sites/zakdoffman/2020/07/25/why-you-should-stop-using-facebook-messenger-encryption-WhatsApp-update-twitter-hack/?sh=334c612269ad

Photo elicitation

Photo elicitation is the use of photographs during qualitative interviews, which spark conversations between researcher and participant, and has the potential to bridge academic interview questions with a medium that is easily understood by participants from various cultural and economic backgrounds (Harper 2002). The aim is not to understand the details of the images themselves, but to set off memories, feelings, insights, thoughts and stories generated by the photographs (Collier 2013). A large part of online memory is visual and relies on digital photography and videos. Therefore, photo elicitation was used during interviews with participants, to speak about specific posts on their Instagram accounts. Although most interview partners also had Facebook accounts, I decided not to repeat the process on the images collected there, as the photo elicitation process could be quite time-consuming and I had the impression that the informants were already fatigued after speaking about their photos on Instagram.

As outlined above, observing the actual moment where memory is being made is difficult if not impossible. Photo elicitation was a helpful method to gain inside into participants' personal memory and have conversations based on specific memory objects, i.e. their Instagram posts through which we scrolled together, either while sitting next to each other or using the share screen functions on video conference tools. The decision to talk about a certain post was mainly left to the participant as I invited them to speak about whatever came to their minds when looking at their Instagram images. Nevertheless, I occasionally probed for images that I found interesting or to encourage participants to start a conversation. Participants also had the opportunity to express their feelings towards this specific memory, which opened an additional level of understanding of their memory making practices and the emotional value these images held. Sparking this situational remembering allowed me to observe patterns of narrating the past and was for the participants sometimes a surprising and entertaining experience, as they had not thought about these particular events for a while.

Analysis

Grounded Theory

While not all steps of grounded theory were executed by the book, data collection and data analysis

were greatly inspired by a grounded theory approach. Grounded theory aims to produce theory based on empirical findings and is thus ‘grounded’ in the realities of participants. It further emphasises the need for reflexivity of the researcher to avoid pressing findings in pre-defined academic concepts (Glaser and Strauss 1967). I found grounded theory to be very compatible with an ethnographic research approach, seeing the analysis as an integral part of the whole process (Pink 2013) and not as separate. Adopting Kathy Charmaz (1996) view that “the interaction between the researcher and the researched *produces* the data, and therefore the meanings that the researcher observes and defines”(35), I attempted to adhere to a self-reflexive approach throughout the analysis. Questioning how the way I posed questions to participants and how their responses were potentially influenced by me, was part of this. Memo writing was an important part of these self-reflections as I started the coding process for which I utilised the qualitative data analysis software MAXQDA, which is well suited for a grounded theory approach. Coding and memo writing were done in conjunction with the data collection. Memo writing was an essential part of reflections on the fieldwork process and developing ideas for further theory building (Lempert 2018). I took memos on several occasions when coding, transcribing interviews and re-reading transcripts while analysing visual and audio-visual material. I also used memos to document any ideas that came to mind during the fieldwork phase. Many of the memos served as a basis to start chapters and structure the thesis as a whole.

I went through two coding stages:

1. Line-by-line coding

This coding stage was aimed at providing an initial overview of potential themes and topics that were addressed in the interviews. From there I tried to establish more defined patterns regarding young people’s digital activities, social interactions and memory practices in conjunction with social media and devices. I also aimed to connect them to participants’ thoughts and feelings about their lives with digital media. At this stage, I paid particular attention to the terms my participants used. Thus, I established several in-vivo codes that would later help me to build more defined categories. This was an important step in ‘letting the data speak’ while trying to establish a theory derived from qualitative data. I have also attempted to make my ‘codes active’ (Charmaz 1996, p. 38) I used verbs as codes, for example *forgetting*, *collecting memories*, *caring for memory, feeling conscious of others’ opinions.*

2. Focused coding

The data was coded again to define further categories that would constitute the foundation of the emerging theories. I have changed the categories that emerged through focused coding several times. I also attempted to directly build some of them from the line-by-line coding phase. For example, based on the *collecting memories* code I built the broader categories of *collecting memories on social media* and *collecting memories on devices*. According to Charmaz 'As you raise the code to a category, you begin (1) to explicate its properties, (2) to specify conditions under which it arises, is maintained and changes, (3) to describe its consequences and (4) to show how this category relates to other categories (Charmaz 1996, p. 41). She also mentions that categories are built by writing memos. In contrast to this, I found implementing categories directly in my code system more helpful. Hence, I created a new code in MAXQDA that would encompass other codes fitting this category. I then attached a memo that would flesh out the idea behind this code in more detail. This was a helpful step in making my data more manageable that working with the several thousand codes that I had created in the line-by-line stage. Keeping track using a memo attached to the code, was also helpful to record when I had changed the name of a code or how my thinking had changed. I documented changes by recording the dates of new entries in the memo.

Visual Anthropology

Due to the nature of the study and the chosen methodology outlined above, visual materials have been of great importance. For the analysis of these visual and audio-visual materials, I have used principles of visual anthropology to interpret them in context to what informants told me about their practices and the stories contextualising the images. Like memory, images are situationally reimagined and non-static (Pink 2013). When using images as data (Collier 2013) contextualisation was aimed for through photo elicitation and through the interviews when discussing participants view on the social media platforms. Additionally, informants themselves gave a lot of context to their social media posts, as these posts usually contain explanations of where the images were taken, who can be seen, what is shown in the picture and what the event was. Sometimes even reasoning for why a picture was posted, like the common phrase "Felt cute. Might delete later" to describe selfies, can be given. I, therefore, frame descriptions, hashtags,

location information, the tagging of other people and comments as annotations created by their owners, giving these images a high value for direct analysis and their usage as data. I was able to relate the visual data with other materials collected through participant observation, conversations and interviews. As Malcolm Collier (2013) states: "Good research images contain complexity, they record associations and relationships, they are often unremarkable at first glance and take time to read." (37) Analysing images with this understanding requires a reflexive approach to classifying, interpreting and analysing these visual materials (Pink 2013). As suggested by Pink (2013), I have seen visual and audio-visual research materials not as standalone objects, that should be merely interpreted in regards to their content but attempted to create links, between these materials, my field notes and the knowledge produced during interviews, that opened up new meanings. I worked with 3 films from the digital storytelling workshop, 1159 Instagram images and 19 Facebook images. Social media images were collected through screenshots and screengrabs for later analysis. Participants were made aware of this practice through the consent form. The taking of screenshots was explained again before the interview. Due to the high volume of images, I did not analyse each image on a one-by-one basis, but tried to look for patterns within their depictions. To assist in the analysis of the images I used MAXQDA to look for texts, compositions and narrative devices around the posts. For example, when it came to images of participants travelling I analysed the images by looking for patterns in how captions were written, what hashtags were used and how young people portrayed themselves in such posts. Furthermore, MAXQDA also aided in putting different materials in relation to each other. I could link images to interview quotes or field notes and code them accordingly. For the films produced in the digital storytelling workshop, I adopted a similar strategy and looked for patterns that were contextualised by the field notes and materials like worksheets and scripts created by pupils.

Ethical considerations

Doing anthropological research online creates many challenges when it comes to the collection of data and the anonymization of participants. The rise of digital media has made it increasingly difficult to anonymise an individual since many share intimate aspects of their lives online and make their close social networks like friends and family, visible to the wider public. Additionally, with most people having some form of personal information online, it has become rather easy to identify a person online even when their real names are unknown. These new conditions evoke the question of whether previous standards of anonymity still apply to contemporary research or if

new standards of protecting participants have to be found.

Online privacy itself is still a contested and often loosely defined concept, which continues to be subject of current public and academic debates. For example, an adult observing the activities of a child in spaces like a playground, without their knowledge or those of their parents has a clear and established ethical code in European societies, which in many circumstances condemns this action. However, observing what a child or young person voluntarily shares online, in the so-called public domain, is less clear. Furthermore, as this study shows, young participants are very conscious of the visibility of their online activities and specifically select what they want to be seen by others, in some cases even aiming at attracting attention to themselves and their activities. With this in mind, should digital anthropologists just assume, that it is okay to use their information for research, because it is 'public' although the person did not intend for this information to end up in research? Or should we instead even help participants to become visible in our research to acknowledge their individual contributions, should they want to be named? This dilemma, as van Schie, Westra and Schäfer (2017) mention, is only insufficiently covered by most ethical guidelines, which creates an urgent need for revision.

As the 2012 guidelines on Ethical Decision-Making and Internet Research of the Association of Internet Researchers (AOIR) puts it:

"Individual and cultural expectations of privacy are ambiguous, contested, and changing. People may operate in public spaces but maintain strong perceptions or expectations of privacy. Or they may acknowledge that the substance of their communication is public, but that specific context in which it appears implies restrictions on how that information is – or ought to be – used by other parties. (6)"

Although this project has not engaged with the levels of data extraction found in applications of big data methods, where vast amounts of data are scraped from websites and other databases, qualitative data can be as sensitive, if not even more so. Particularly, in the context of working with young people, the videos, pictures, texts and conversations, which have been collected as qualitative data and were analysed, require the creation and re-evaluation of appropriate solutions. Children and young people are considered to be 'vulnerable' and are sometimes even seen as incapable of understanding long-reaching consequences of their behaviour.

In order to analyse and document social media images of participants, screenshots and videos of

audio-visual materials were taken. Participants were informed of this practice verbally and in writing and permission to use specific images for publication purposes was asked beforehand.[11] Through the consent forms, participants also had the option to anonymise images through pixilation of their faces and decide whether they consented to their images being published in the thesis, academic, journals or in conference presentations. Furthermore, all participants' names were anonymised and I am using pseudonyms to refer to them throughout the thesis.

Conclusion

As demonstrated in this chapter, I have chosen a dual approach to research young people's memory practices that looks at how they interact physically with digital devices and how their practices are shaped by online environments. Applying assemblage theory to the methodology required flexibility in how to collect data, by following the practices of my participants. This approach grounded in young people's practices acknowledges their emancipated position as valuable contributors to culture and society. Furthermore, the methodology includes images as memory objects that were central to the data collection and analysis. This methodology exemplifies the challenges and possibilities to study contemporary memory making and the role of digital media within it, while highlighting the importance of previous debates on the boundaries of ethnographic fieldwork and the blurriness of the offline and online distinction. In addition, digital media as a mundane part of everyday life that structures habits and practices has been an emphasis of this methodology. The following chapter will discuss the findings regarding how digital media affects young people's daily routines and how their understanding of these technologies affects the relationship between them.

[11] Please see the appendix for the consent forms.

Chapter 4: Youth and the digital everyday - being caught between skilling up and fighting digital dependence

Before turning to the memory practices that young people have established in connection to digital media, it is important to discuss the contexts in which these technologies are placed in youths' everyday life. Not only are the affordances of digital technologies part of shaping these practices, but young people's understandings and beliefs of 'the digital' are embodied in these practices. Despite this interweaving of machine and human in everyday life, young people's relationship with digital media is an ambiguous one. On the one hand, digital media has a positive connotation as a means to instantly communicate, make new friends, express their own voice and inform or educate themselves. On the other hand, an underlying threat of a dangerous side to the digital, which can result in information overload, miscommunication, harm to their person and mental health, is always present. These dangers are communicated to youth, through their parents, teaching personal, news, popular culture and their peers. Youth are often portrayed as particularly receptive to digital media. Accordingly, they are frequently accused of being hyper-dependent in comparison to older generations. This portrayal involves pointing out that their still ongoing physical and mental development might be negatively affected or stalled through the uses of digital media. Moreover, the discourse about the safety of digital technologies is projected onto youth, who are made responsible for lacking resistance to the temptations symbolised by digital technologies. In response to this discourse, this chapter also highlights the dilemma young people find themselves in. Strong expectations toward the next generation to develop profound digital skills and be equipped for the future job market, often communicated from early on in school, do not leave them with much agency to avoid digital technologies. Instead, these types of interactions are a well-established necessity to participate in central aspects of social life – from education and work to social interactions and tending to basic needs.

Based on ethnographic observations and conversations, I will start this chapter by 'thickly describing' (Geertz 1973) a day at the East London school, where I have conducted the digital storytelling workshop. Using these thick descriptions, I exemplify how digital technologies are central to the learning processes of pupils and the school's daily routines. Furthermore, I will show how the presence of digital technologies challenges the safeguarding of students, which is a core

responsibility of the school as long as children are on the school's premises. I will then move on to address how devices shape and structure ordinary days, and are assigned to specific tasks, based on their affordances. In addition, the chapter examines aspects of the social role of digital technologies, that further highlight young people's suspicions and fears about 'the internet' such as dependence, addiction, information overflow and the loss of productivity. While often treated as a novelty, this chapter talks about digital media as a firmly established part of the everyday. However, this mundanity does not exist in a vacuum and is connected to far-reaching processes related to technologies and practices that are embedded in the attention economy (Tufekci 2013), surveillance capitalism (Zuboff 2019; Barassi 2017) and wider neoliberal discourses of individualism (Ganti 2014). Such neoliberal values are most prominently brought forth in young people's feelings of being dependent on digital technology and their loss of productive time. Thus, this chapter also introduces central overarching themes that influence young people's choices of how to create, share and maintain memories online. These factors often work as a deterrent to engaging with online practices, which will be explored here.

The digital everyday in an East London school

It is a cloudy Thursday in January, as I stand in front of the gates of the school in East London, where I will be conducting a digital storytelling workshop for the next six weeks. It is around 11 am, so the playground around the school building lies bare and in silence behind the tall fence, that blocks any sight from passers-by. I ring the intercom. The lights of the integrated camera flash, signalling that someone is looking at me. Without a single word, the gate opens. As I enter the school's entrance hall, a friendly but very busy-looking receptionist asks me who I am here to see. I state that "I am here to see George", my contact person at the school, and am asked by the receptionist to sign in. Unable to hide my perplexity as I wait to receive some kind of paper form, the receptionist points to a touch screen just next to me. She explains that after I signed in, my contact person will receive an email notifying him of my arrival. After giving all the required information, which included my name, affiliation and contact details, I was asked to look into the camera of the touchpad and smile. The slightly pixelated image of myself was printed in seconds and attached to a badge that I had to wear at all times. The receptionist then handed me the badge with the lanyard reading "VISITOR". After this check-in, I was finally offered to have a seat to wait for George's arrival. Sitting on a colourful sofa matching the school logo's colours, I had some time to look around. As lunchtime approached, the traffic in the entrance hall picked up

steadily, with external visitors like me signing into the system and waiting for their contact person to pick them up. Concurrently, students in their school uniforms passed through the door with their badges that separated the entrance lobby from the rest of the school building. While deep into their bubbly conversations, some pupils had to be reminded by the receptionist to sign in with their passes onto the card reader located next to the door. All pupils had to register, into the same system as I did, to be marked present and to record at what times they entered and left the building.

After a while, George came out of the door to pick me up and gave me a quick tour of the school building, before ushering me into the teachers' room, where I was able to prepare for the storytelling workshop. Once there, George handed me a students' list that had the names and photos of the pupils I would be working with. This helped me greatly in familiarising myself with the students beforehand and remembering George's descriptions of the class dynamics, as well as being aware of which students had special needs. However, this visual attendance list was also a representation of student files. Each student had a file self-stored in the school's computer systems that were connected to a school email address as well as their accesses badges. The badges also kept children out of certain spaces and rooms within the school. Digital technologies thus were an important part in regulating the daily procedures and administrative needs of the school, but were also implemented to monitor students.

From the time I had initially outreached to the school, I learned that each student is required to own an Apple iPad, which accompanies them throughout the school day. It is used for notes, homework or interactive learning applications. During the workshop, I have also observed how online searches for the right spelling of a word or fact-checking are well-integrated within pupils' workflows. An iPad is quite an expensive device, but pupils also have the opportunity to borrow tablets from the school for a day, if they did not own one yet or forgot theirs at home. At the school, tablets were introduced from an early age and used in primary education. Moreover, funds were made available to support children from low-income families with the purchase. It is important to note that the children at this school are not from affluent backgrounds. In fact, most children are from working class backgrounds and are part of the multi-cultural community surrounding the school, with Bengali and Polish being the most spoken languages next to English. In several conversations with teachers, it was mentioned that the school viewed their students' backgrounds as 'disadvantaged'. Therefore, teachers emphasised that children needed specific support to give them a brighter future. Technology was promoted to be one of the most important ways to give

pupils a competitive edge and “to prepare young people properly for the world they are going into”, as the school’s promotional material states. Being proficient in digital technologies is, therefore, a strong basis for opening up job prospects.

This observation reflects the promotion of digital media by educators as a way to empower youth. As Blum-Ross and Livingstone (2016) point out, digital media in education represents two dominant imaginaries. The first promotes social justice and gives young people a ‘voice’, particularly to those from marginalised backgrounds. While the second imaginary focuses on individual achievement and success indicators shaped by neoliberal ideals (Blum-Ross and Livingstone 2016, p. 2). These two imaginaries of what makes for good education were also present at the school where I conducted the research. For example, one of the students at the workshop decided to use his memory of a competition he and his class won. The competition was set up by the school and a large company offering the top three winners a cash prize for future school projects, as well as a visit to the company’s premises to learn more about their work. Early contacts and collaborations with private companies were central to getting students ready for the job market, reflecting the greater relevance of private companies within education.

The integration of technology for the running of an ordinary school day also introduces new challenges. Protecting students during their time in school is one of the school’s priorities, however, digital media makes it harder for teaching staff to control what information young people can access. The worry that students could access inappropriate content while they are on the school premises is deeply engrained in the school’s IT infrastructure. The infrastructure is tailored towards creating a smooth-running school day without outside distractions or harmful intrusions and any new software needed to be carefully examined beforehand. Hence, making the workshop compatible with the digital affordances of the school was challenging and mainly failed – meaning I had to revert regularly to using old-fashioned pen and paper instead of a programme that fulfilled a similar function. For one, different WiFi accesses are set up that differentiate between guests, teachers and pupils. Being on the guest WiFi meant that, like the students, I could not visit certain websites. When I wanted to show the pupils examples of how a finished digital story could look like on the video sharing platform YouTube, the access was blocked and I had to ask teachers for their support. Moreover, students themselves were often running into IT issues that needed fixing. For example, they were sometimes unable to connect to the WiFi with their iPads or needed to ask for permission to use one of the school printers to which only teachers had access.

Google Classroom, an online learning platform, was used for the submission of assignments and general communication. However, as an external person, I was also not set up on Google Classroom, as this required me to be part of the teaching staff. Thus, I was not able to communicate directly with the pupils outside the classroom and could not speak directly to their parents. I was very grateful for the help of George and another teacher in facilitating the communication. Distributing the consent forms and workshop description was hence undertaken by the teachers, who also chased the students for me to hand in their workshop assignments. The usage of Google Classroom promises several advantages to teachers and school administrators:

- Add students directly, or share a code or link so the whole class can join
- Set up a class in minutes and create class work that appear on students' calendars
- Easily communicate with guardians and automatically send them updates[12]

Using Google Classroom also means that other Google products are directly synced to this application, like Google Doc, Drive, Gmail, Google Sheets, Google Slides or Google Calendar. This integration promises interoperability and simplifies the usability for pupils. For example in the workshop students mainly used Google Docs to take notes or write their texts unless they opted to write it down on paper. On a deeper level, the usage of Google products demonstrates how digital technologies are opening gates to large technology companies in the public sector and education, as publicly funded alternatives rarely exist. In addition, schools have neither the capacity nor budget nor the knowledge to fledge out such intricate systems themselves. This means that children's personal data is not only held within the IT systems of schools, but also shared with external private actors, emphasising that contemporary schools are largely dependent on these digital infrastructures. Considering the reiterated emphasis on children's vulnerability and the need for protection, the trust put in these companies is significant.

It is widely recognised that young people are becoming data subjects from an early age, sometimes even while still in the womb, as parents share information on the baby's growth or images of the first scans (Barassi 2020a; Lupton and Williamson 2017; Livingstone and Blum-Ross 2020). The

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[12] Descriptions of Google classroom functions: https://edu.google.com/products/classroom/
Accessed on 06/07/2021

focus on digital media and its potential harms is frequently projected onto the use of smartphones rather – a point I will be elaborating on further in this chapter. Yet, the relationship between a person and digital technologies starts far before owning such a device. The example of the school shows that ideas and social norms about technology enter young people's lives from early on. These developments pose ethical questions of privacy and data protection. Particularly with the Covid-19 pandemic, these issues need to find more consideration when addressing the effects of digital technologies on young people's lives.

During the pandemic, home-schooling and online learning became even more vital as schools in Germany and the UK remained closed over extended periods in 2020 and 2021, which caused considerable strain on children, teachers and parents. Although I was not able to visit the school again, I had to follow-up email conversations with George, who expressed difficulties in getting hold of the pupils when not seeing them in person. Despite frequent online communication, it was more difficult to remind them of homework and have informal one-on-one conversations. As highlighted, schools in the UK have put large efforts into promoting digitalisation and online education even before the pandemic. In Germany, however, a generally greater reluctance towards integrating digital technologies into education caused issues when children could no longer visit schools physically. In international comparisons German schools had not caught up with digitalisation and pupils lacked digital proficiency (Maaz and Diedrich 2020). Hiring an IT manager or IT department like in East London, was far from the norm in Germany suggesting a stark difference in children's everyday interaction with technology. However, the unprecedented times of the global pandemic are likely to increase the usage of digital technologies in the education of young Germans as well.

Digital devices and the structuring of daily routines

Digital technologies do not only shape the daily rhythms of young people in an institutionalised environment like a school. In their private lives habits are formed, maintained and disrupted by these technologies and structure a significant part of their day. To give an inside into this structure I am using the account of Janine (26 y/o), who is living in Hamburg:

"So, well I get up, usually between 7 and 9 am, it depends on how I manage to get up. Don't know, I usually get ready relatively fast somehow, but am indeed having a look at my smartphone first. That's I believe the first look at something when I wake up. Then I go to the bathroom, the usual

you know. I get ready, uhm, take my stuff and go to the S-Bahn station and on the train, I am listening to music, podcasts, am on Instagram, I am always commuting … one way is I believe like thirty minutes. Which means that I am playing around with it [the phone] the whole time and then I am usually going to the office. I then do my seven hours of work there and in between I am, of course, from time to time on my smartphone … well, yes and as I said I then work around seven hours up until nine hours maximum, depending on how much is to do. Then I am usually commuting home. Don't know get groceries on my way home, make some food for myself and then I don't know, I am glued to my phone or am watching something on Netflix […]."[13]

As this short extract shows an ordinary day for participants often starts with reaching for their smartphones, as the first thing after opening their eyes. For some participants, this meant reading work emails while still in bed or reading the news while having breakfast or replying to messages from friends and family when getting ready for the day. Whether delayed or immediate, for many young people mornings have become a phase of catching up with what happened during their hours of sleep. Nevertheless, it is not only the mornings that are marked by digital technologies. Smartphones are used to find one's way to locations, enable communication between people to set up meeting points, phones are passed around to show others what they are looking at or are used to pay in a shop. Some young people even track their physical activities and set reminders to structure further the day. Digital interactions are, thus, constant before finally going to bed again.

The smartphone is a close companion and key to the media practices of young people. This relationship conjures the image of Haraway's (1991) 'cyborg'. A phone can be taken almost anywhere and kept within reach. The multitasking capabilities of smartphones make them the most central digital device in participants' lives, with some not owning laptops or desktop computers anymore or rarely using them. Particularly those outside of formal education, rarely engaged with these computers in their personal lives, because the smartphone provided the convenience of "having everything in one place". However, those who still owned laptops, desktop computers or tablets used them to fulfil more specific tasks and needs. For example, writing or watching a film

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[13] Interviewed on 08/07/2020. Translated from German: "Gut, also ich steh auf, in der Regel so zwischen 7 und 9, je nachdem wie ich so hochkomme. Keine Ahnung, mach ich mich meistens relativ schnell fertig irgendwie, guck aber tatsächlich immer erstmal aufs Smartphone, also ich glaub, das ist so der erste Blick, den ich jedes Mal habe wenn ich aufwache. Dann ins Bad, das Übliche halt. Fertigmachen, ähm, nehm meinen Kram und dann geh ich zur S-Bahn und in der S-Bahn hör ich dann Musik, Podcasts, bin bei Instagram, ich fahr immer so … eine Strecke is glaub ich immer so dreißig Minuten. Das heißt die ganze Zeit da irgendwie rumdaddeln und dann geh ich in der Regel ins Büro. Hab da meine sieben Stunden Arbeit und bin da zwischendurch natürlich auch immer mal an meinem Smartphone … ähm, ja wie gesagt, ich arbeite nur so sieben bis höchstens neun Stunden, je nachdem wieviel dann ansteht. Dann fahr ich meistens nach Hause, keine Ahnung, geh nochmal einkaufen auf'm Weg, geh dann nach Hause, mach mir was zu Essen und dann weiß ich nicht, häng ich am Smartphone oder irgendwie guck mir was bei Netflix an, wenn wir jetzt mal von dem ganz üblichen Alltag so sprechen."

was preferred to be undertaken on a laptop as opposed to a smartphone. Lydia (26 y/o), who also lives in Hamburg, explained this preference by saying:

"It's also because I don't want to stare so often at my small phone, because, well it's also not great to stare at your laptop, but this is uhm, already different of course, but for example when it's about communicating with friends, so when it comes to communication than I'm mostly using my phone."[14]

This highlights that the particular affordances of each device also shape how they are used. While most computers, whether in the form of a phone or tablet can fulfil similar functions especially their varying sizes and physical attributes shape for which activities they are used. Although a laptop or tablet is in a way also a mobile device, the smartphone's size means that it is often placed close to the body. This bodily presence also means that young people find themselves reaching for their phones, when they did not intend to, frequently interrupting or accompanying other activities like eating, spending time with others or. Many participants described the subconscious presence of the smartphone and its persuasive pull. As Viktor (20 y/o) described: "[…] you can be sure, that I have this reflex, I really have this reflex, I take it in my hand and look at it. And this totally annoys me. And it's really hard to unlearn this. Because I am totaaally trained for and seems to be a love-hate relationship, yeah."[15]

Because of its notable presence, the smartphone is framed as a particularly personal and intimate device, as it also holds the majority of personal communication and images, whereas desktop computers, laptops and often tablets are mainly treated as machines for work or education.

The uses and personal relationships, thus, differ according to the affordances of devices. As mentioned in the previous chapter, the group of participants was heterogeneous, yet their backgrounds did not create great fluctuations in their daily habits in connection to digital technologies. There were, however, differences in what activities were undertaken. For example,

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[14] Interviewed on 09/06/2020. Translated from German: "Weil ich halt auch nicht so oft irgendwie auf mein kleines Handy starren weil, obwohl es auch nicht so geil ist immer auf den Laptop zu starren, aber das ist natürlich schon ähm, schon nochmal was anderes, aber um zum Beispiel mit Freunden zu kommunizieren, also wenn es um die Kommunikation geht, dann benutze ich hauptsächlich mein Handy."
[15] Interviewed on 26/08/2020. Translated from German: "[…] kannst du dir sicher halt sein, dass ich diesen Reflex hab, ich hab echt diesen Reflex, dann nehm ich's in die Hand und gucke drauf. Und das stört mich total. Und es ist echt schwer, es abzulegen. Weil ich irgendwie totaaal drauf getrimmt bin und es ist so'ne Hass-Liebe anscheinend, ja."

pupils at the school would talk more frequently about using their tablets or phones for playing video games, finding information, watching YouTube videos, socialising online or drawing. Although older participants aged 19-27 also participated in such activities they also spoke about reading the news and career aspirations. The difference in activities can be partly explained by the age difference. Nevertheless, it is important to add that younger participants were much more guarded when it came to their activities, which were often assessed by parents and other adults for their age appropriateness. This also explains why many participants aged 13-14 were not active on social media, as only a few of them were already allowed to have their own accounts. Those who were active on social media had only recently set up their first Instagram account.

Going back to Viktor's annoyance with the reflex to reach for his phone, the routinised interactions with smartphones are also a source of discomfort or even shame. Participants frequently voiced that they felt like spending time on their phones took away from experiencing real life. Accordingly, reaching for the phone is seen as a bad habit that could be changed, although many participants did not always manage to do so. In order to escape their phones' influence many tried to rely more on their laptops instead, which like the tablet at the school has the connotation of a device for learning and work. Trying to "live more in the moment" was thus something many informants inspired to do. The phone and its capability to record and store images and videos as well as share them through the internet makes it an important device for young people's memory practices. However, "living more in the moment" and the idea that spending too much time with technologies would disconnect one from reality, also implicated that young people would actively refrain from using their cameras to capture what was happening around them. Instead, they tried to feel and enjoy the present moment for its own merits. The idea of online life somehow being 'not real' is still engrained in how young people think about digital media, despite the very 'real' interactions and activities they have with it daily. This view of the internet and social media not being "real life" is visible throughout young people's memory practices and will be a reoccurring theme throughout the following chapters, particularly Chapter 6.

What about the children?

Youth as discussed in Chapter 1 is an imprecise and culturally specific notion. While identifying themselves as 'young', participants repeatedly voiced worries about younger generations, whose digital media usage appeared more excessive than their own and had also internalised that

exorbitant engagement with digital media was a characteristic of their generation. Fears connected to youth and technology are not only voiced by older generations, but by young people themselves, highlighting that calling someone or oneself 'young' also assigns multiple social attributes to that person (Durham 2004, p. 593). This ties in with the perception that young people are in general more free or loose and have not discovered their own boundaries yet. When trying to describe youth in their own words, informants spoke of being malleable, active, energetic and open-minded but also being egoistic, short-sighted and easily influenced. Participants characterised their status as young person as not being settled yet. This commonly accepted naiveté of young people also functions as a justification for increasing their protection and surveillance. Particularly, in regard to digital media, this means that youth are seen to have a lack of control when it comes to their digital media usage, which requires to control and guide them for their own good.

Informants also described young people as impulsive, which could lead to running into trouble, because potential consequences were not thought through enough. Naiveté and associated ideas of irresponsible behaviour were framed by participants as the main reason why young people were vulnerable to the risks of digital media. Speaking of other members of their generation and those below them, informants pointed out that young people also spend more time with their smartphones. Since youth is understood to be impressionable and malleable, the long-term effects of emerging technologies were also portrayed as risky since they were not fully understood yet. This indicated that despite the quotidian presence of the internet in people's homes for the past two decades digital media is still perceived with a sense of novelty and framed as an unknown; even by those who grew up with it. For example, Lydia (26 y/o) said: "[…] well, we don't know yet, because it is all still so new, what kind of psychological damages can emerge for our generation. I mean we will only know in the next ten, twenty years what the internet actually does to you."[16]

Participants between 19 and 27 often expressed concerns over the dependency of people younger than themselves on digital media. Whether younger siblings, siblings of friends or their future children, they generally believed that they spend more time online than themselves. Even the children at the East London School spoke of their younger siblings as being online more frequently

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[16] Interviewed on 09/06/2020. Translated from German: "… also jetzt wissen wir noch nicht, weil das alles noch so neu ist, was es überhaupt für psychische Schäden, äh, haben kann, für unsere Generation ja auch irgendwie. Ich meine, das weiß man erst in 10, 20 Jahren, was das Internet überhaupt mit einem macht."

than themselves. Particularly, the shared impression that young people started to interact with digital media at increasingly younger ages than older generations supported this view.

The older group of informants aged 19-27 received their first mobile phone when they went to school between the ages of 10-13, mainly to be reachable to their parents. These phones were not used for internet access and could often only send texts and make phone calls. Fabian (22 y/o) remembered, that his parents used to tell him: "[…] don't touch this internet button. That's extremely expensive!"[17] Therefore, smartphones entered their lives later in their teenage years or early twenties, when these devices became more common and started to become affordable. When explaining their worries, young people commonly used their own childhood memories as a comparison to current developments, stressing the impression that children today were far more exposed: "in a certain way young people are almost growing up in dependence to the internet"[18] (Lydia 26 y/o).

This impression aligns with the discomfort George, my contact at the school, voiced on several occasions when speaking about how children could safely interact with these new technologies. Similarly to the participants, George made comparisons to his own youth explaining that he was unsure of how he would have handled the presence of digital technology at the same age as his students. As a teacher, especially cyberbullying was a concern for him. Being in his early thirties, George had experienced mobile phones as part of his teenage years while growing up and computers were already part of his early memories. Nevertheless, he thought that today's youth was affected at a much more severe level and that this could have a negative effect on their development. Particularly, their dependency and constant interaction with digital media worried him as for him "the children just can't control themselves. If we wouldn't intervene they would never stop". As illustrated before, the school had adopted much of its infrastructure to increase the safety of pupils and control their online activities. However, school rules and disciplinary actions were also tailored towards punishment when digital media usages were not complying with the school's rules.

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[17] Interviewed on 25/11/2020. Translated from German:"[…] geh nicht auf diesen Internetbutton! Das is super teuer."

[18] Interviewed on 09/06/2020. Translated from German: "… auch in gewisser Weise wachsen junge Menschen fast schon so auf, dass sie abhängig vom Internet sind".

During one of our conversations, George explained to me that the school wants to encourage pupils to learn a responsible way of using technology. The smartphone was quite explicitly excluded as a device that could be part of such a responsible approach. On the contrary, it was represented as a source of distraction and potentially enabling bullying. However, the actual worry appeared to be the inability of controlling what children were doing. Smartphones were not permitted during class and even fully banned from being used at the school premises unless they had explicit permission from a teacher. I generally allowed the students to listen to music on their phones while working on their stories. Without such permission, being caught, for instance, taking a picture during the school day could result in being disciplined for what the school called ‘technology misuse’. Pupils had deeply internalised these rules. I once asked George about the rules around technology while preparing the workshop. At the same time Zainab (13 y/o) and Farah (14 y/o), two students who attended the class and tended to be the ones arriving first, entered the classroom. Overhearing the conversation, Zainab excitedly jumped in and listed the number of penalty points one could acquire for using their phone in school. She emphasised that accumulating four points would lead to detention. ‘Technology misuse’ was classified as anything involving a smartphone unless it was used to look up information for course or homework. If a student had received a certain number of points and was asked to give their phone to a teacher, showing any signs of resistance could result in their phones being taken away and kept at the school for a week. This example highlights the dichotomy between technology enhancing human capabilities and technology damaging what makes us human. On the one hand, digital technologies are praised and promoted as ways to enhance learning experiences and facilitate ever-greater access to information. On the other hand, pleasurable or non-productive activities not directly promoting learning are marked as harmful. This affects particularly personal and private devices, like smartphones, which are framed as objects for leisure time. This discourse within the school relates to larger societal discussions on the dangers of digital media, which also affected how young people view these devices and make memories digitally, as moral attributes are attached to different devices.

Much of the concern around digital technologies mounts to the fear that young people will not properly learn to interact socially with others. The fear that social fabrics and community will be lost is a common reaction to the introduction of new technologies. Each generation appears to reproduce such concerns as demonstrated by participants’ worries about coming generations. Despite their own familiarity and the acknowledged need for digital media to participate in society,

the fear of a socially dysfunctional future generation is constantly communicated. Hampton and Wellman (2018) state that this reoccurring idea of a more socially connected past is mainly fed by nostalgia for a fictional time of close-knit face-to-face relations akin to those of pre-industrial times – regardless of whether these idealised communities existed. Technology has often been propagated as the culprit for the destruction of the social fabric. However, community and sociality as well as the social pressure to conform to it have not disappeared, but profoundly changed (Hampton and Wellman 2018, p. 645).

As presented in the first chapter, digital media is central to the social life of young people, which has been pointed out in several studies on digital youth cultures. Most participants remembered not desiring a phone for themselves until their peers received one and started to feel left out of conversations. Digital media is supporting their social relationships, which stands in stark contrast to the fear of young people losing their sociability due to digital media. Sophia (19 y/o) was one of the last children in her school who received a smartphone when she was younger:

"In the 6th, 7th grade, uhm, at that time it just started with WhatsApp. And I was the only one in my class with another guy who still had a mobile phone with keys, and uhm, I always heard how my friend with whom I took the tram: 'Look, everybody in the group has sent this. And this video was also sent and it is so cool to be in touch with the whole class.' And I was one of the people who weren't in that group and I felt totally isolated. And that you experience this feeling so early, this thing of 'Okay, I can't be in this digital world right now, so I don't belong to the others.' And somehow I felt super excluded, uhm, although it wasn't actually something that I really wanted, but which was communicated to me through EVERYONE being active on it. So I started to think: 'Okay, maybe I need to have this to be a part.' Somehow."[19]

During fieldwork, I observed a similar incident while conducting the digital storytelling workshop. The majority of pupils aged 13-14 who participated in the workshop already owned smartphones and used services like WhatsApp to communicate with their peers. Only one girl in the class,

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[19] Interviewed on 07/04/2020. Translated from German: "In der 6., 7. Klasse, ähm, da hat's gerade mit dem WhatsApp angefangen. Und ich hatte als einzige in meiner Klasse noch n Tastenhandy mit einem anderen Kerl und ähm, hab dann immer von meiner Freundin, mit der ich immer mit der Bahn gefahren bin, so gehört: 'Ach, guck mal, das hat jetzt der schon wieder in die Gruppe gesendet. Und dieses Video wurde geschickt und das ist ja so cool mit der ganzen Klasse in Kontakt zu sein.' Und ich war halt als, mit eine der wenigen, eben nicht in dieser Gruppe drin und ich hab mich total ausgegrenzt gefühlt und das man so was dann schon so früh erfährt, also dieses Ding 'Okay, ich kann in dieser digitalen Welt gerade nicht sein. Also gehöre ich nicht zu den anderen.' Und das ich mich irgendwie super ausgeschlossen gefühlt hab, ähm, obwohl das jetzt gar nichts war, das ich und unbedingt haben wollte, sondern was mir dann einfach nur dadurch vermittelt wurde, dass halt ALLE darauf aktiv waren. Dass ich dann dachte: 'Okay, vielleicht muss ich das haben, um dazu zu gehören.' Irgendwie."

Farah, did not have a smartphone. While going through the classroom to assist pupils with their stories her friend Zainab mocked her for not owning one: “Her mom is so strict she wouldn’t allow her anything. My mom doesn’t mind.” The two were quite inseparable and I learned that Farah actually had only recently joined the school. While this public berating of her friend might appear cruel, it was also an expression of frustration for Zainab, as she missed out on sharing certain conversations with her friend. The strictness of Farah’s parents and particularly her mother was often brought up by Zainab when we had conversations.

As demonstrated above, young people, and children in particular, do not have the power to refuse the usage of digital media. While older generations are struggling with similar experiences in regard to their digital habits, like endless scrolling through feeds or losing track of time, it appears disproportionate that young people are more frequently shamed for spending too much time with digital media. The focus of parents, teachers, caregivers and other adults on young people’s online behaviours is rarely extended to the privacy issues that arise from young people’s obligation to engage with digital media. Their existence as data subjects whose sensitive information is collected and sold appears to be of lesser concern. However, a growing body of research has shown how dataveillance influences people’s life chances of securing a job, getting a loan or even how often they might be stopped by the police (Williams et al. 2018; Eubanks 2019; Carlo et al. 2018). Children are particularly vulnerable to these potential harms, as they are subject to stark surveillance from adults because digital technologies allow for an even closer examination of their activities. The ambiguity about new technologies, as being fundamental to today’s everyday lives and yet multiple negatively perceived factors, formed the belief in participants that it was not the technology that was inherently bad, but a question of how to use it for making a right and healthy relationship possible through the modification of one’s behaviour and the need to learn how to properly engage with it.

Drowning in a sea of information

The most appreciated and spoken of aspect of digital media among young participants were its benefits to autonomous education. As alluded to above, learning through digital media has a positive connotation and is a necessity for young people. Especially for participants who are no longer part of institutional education, the internet is a constant resource for learning and an important way to receive news from various parts of the world. It also provides access to

information from alternative or independent media outlets. As a result, the idea that digital media assists in 'broadening one's horizon and 'gate to the world' are very much present. Furthermore, digital media as a pedagogical tool supports audio, audio-visual, media texts and interactive engagements. A significant commonality among participants was the usage of YouTube to learn new skills like applying make-up, photo and video editing, finding cheats for video games or how to play a musical instrument. While digital technology is a way to receive information from all around the world and provides young people with autonomous ways of learning, having constant access to information also has its downside. Countless opportunities to consume information or to learn something new also led participants to the impression that they are incapable of ever catching up with the huge amounts of information, distributed through the internet. This sentiment was particularly applicable to their social media feeds, which were a crucial source of information. This connected to participants' impression, that without social media, one is left out of information and be unable to follow trends, which could lead to being excluded from conversations with peers.

A very important event occurring at the time of fieldwork was the Black Lives Matter protests in the United States. The video of the murder of the Black American George Floyd at the hands of white police officer Derek Chauvin circulated on many social media platforms including Instagram. This online presence of outrage and a highlighted emphasis on racial injustice in the US made it far across its borders and sparked public conversations on racism and discrimination in many European countries, including Germany and the UK. Many of my informants referenced this event as something positive that could be achieved through social media, but at the same time found the brutal footage of George Floyd's death disturbing and difficult to avoid as it poured into their feeds. This exemplifies, that the dissemination of information through social media can often not be controlled. Thus, images and videos that one would prefer not to see or the amount of violent or frightening news is difficult to filter, affecting the emotional condition of young people. Particularly, those involved in activist work could not always tune out, since social media was an important part of their engagement where they contributed to the production and dissemination of political information. Being overwhelmed by information or experiencing a "flood of information", as participants often coined it, was a common experience.

In addition, the credibility of information received through social media is a contested issue. Discussions over so-called 'fake news' and the internet distributing wrong information have been widely popularised through traditional media outlets, academic research (Dang 2021; Mould 2018;

Gray et al. 2020) and wider societal discourses. According to a survey conducted by the European Commission in 2020, 76 % of young people aged between 15 and 24 are using digital media as a primary source for news (European Commission 2020, p. 47). Young people's trust in information on social media is slightly higher than of older generations. Nevertheless, with 31 % of 15-24-year-olds and 27 % of 25-39 year-olds (European Commission 2020, p. 33) saying they would trust this information, this is a low number compared to traditional print media, which lies between 47 % of people aged 15-24 and 44 % for aged 25-39 who said they would trust the information. Therefore, the ability to filter, critically reflect and verify information is challenged by the sheer amount of incoming information. Hence, many participants tried to repost only information found on verified accounts and official news media outlets. Being cautious with information found online was also motivated by avoiding the embarrassment of having to admit that wrong information has been shared when confronted. When I asked Didier (20 y/o) if he ever deletes content on his Instagram, he said he would delete posts he feels do not represent him or his beliefs anymore, but also content that was misinforming:

"[…] well, because I am finding out that something I've shared or something like that, isn't actually true. It has happened to me before that I shared something where after all there wasn't any source and in the end when I double-checked it, after I had shared it, it was then revealed that it was actually utter nonsense."[20]

Therefore, attempting not to end up on the 'wrong' websites or receiving and spreading misinformation was of vital importance. Multiple participants spoke of digital misinformation as a large factor in being cautious about social media. Knowing what is going on in the world does not only apply in terms of world news and events but it is also linked to parasocial relationships, that are formed through mediated encounters (Chung and Cho 2017). These relationships are one-sided as the relationship only exists on the side of the recipient. For example, people might feel like they have a relationship with a celebrity or fictional character, but this relationship cannot be reciprocated. Particularly, the presence of influencers on social media platforms is a common example of a parasocial relationship. This relationship can be experienced as gaining too much information about another person's life when young people start to compare themselves and their

[20] Interviewed on 06/08/2020. Translated from German: "[…] also weil ich irgendwie rausfinde, dass irgendwas, was ich irgendwie geteilt habe oder sonst irgendwas gar nicht stimmt. So, mir ist auch schon mal passiert, dass ich irgendwas geteilt hab, wo im Endeffekt gar keine Quellenangabe war, wo ich das dann im Endeffekt nachgecheckt hab, nachdem ich's erst geteilt hab, wo dann rauskommt, dass es eigentlich total Schwachsinn is."

own lives. Being involved in the life worlds of others can create pressures to conform to expectations, but can also spark rejection of a perceived shallowness:

“I find that although there is always a lot going on it is somehow a dead medium.“[21] (Sophia 19 y/o).

“I believe online is just a bit superficial, which is obvious. On social media you’re portraying of course only a very specific side of yourself.“[22] (Lydia 26 y/o)

This shallowness of informational depth makes young participants frequently wonder, if what they are digesting as information is beneficial to them. Often concluding that online information is not actual input and more for entertainment. For example, endlessly scrolling down the suggestions tab on Instagram, which reloads more and more posts curated by algorithms based on what individuals have looked at, liked, saved, searched for or commented on previously.[23]
The suggestion of such posts is less about informational value and accuracy, than catching people’s eyes with interesting and often scandalised news (Hendricks and Vestergaard 2019).

[21] Interviewed on 07/04/2020. Translated from German: “Ich find das ist irgendwie n, ähm, auch wenn da so viel los ist, äh, trotzdem n totes Medium für mich irgendwie.”
[22] Interviewed on 09/06/2020. Translated from German: “Ich glaube, online ist es einfach auch n bisschen oberflächlich. Was natürlich klar ist. Auf so sozialen Medien stellt man ja auch natürlich nur so ne ganz bestimmte Seite, ne ausgesuchte Seite, würde ich mal sagen, von sich dar.”
[23] In addition, the Instagram app includes a feature through which users can purchase directly items that are advertised on the platform.

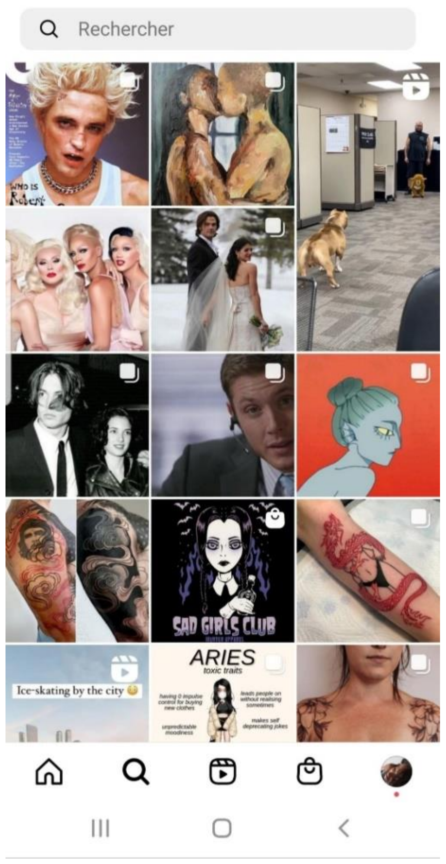

Figure 2: Screenshot of explore page on the Instagram app

The illustration from my personal Instagram above shows how images and videos are lined up in the discovery tab. These algorithmic suggestions are intended to capture people's attention, especially because videos start to play on their own while scrolling through the page. The reloading of the page with endless new results contributes to young people's feeling that they have wasted their time as the bottom of the page can never be reached. 'Infinite scrolling' thus keeps individuals' attention, but rarely provides new information, representing a personal experience of what is frequently called the 'attention economy'. Technology companies have an interest in keeping users engaged with the content they see to gain ad revenue. Despite its digital repackaging, the attention economy did not come into existence through digital media and can be traced back to early print journalism and throughout the establishment of television later on. Like for its predecessors, the goal is to get consumers' attention to the products of advertisers, who are the real customers of these companies. In the early 2000s, social networks as well as more online-based services were mostly free to use and thus unprofitable, which led many people to get used to using online activities without being charged. However, most of my participants had a very good understanding of these mechanisms and were hyper-aware that their attention was used to

make money for the companies whose services they used and that the real product was their data. This business model was also adopted by large technology companies like Google, Meta and Amazon.

Wasting time and the drive to be a productive individual

The ambiguous relationship between youth and digital technologies is also present in notions of productivity. While technology allows new ways of working and learning it is also seen as a constant distraction from essential tasks. As mentioned above, particularly the smartphone is often identified as the culprit to whom valuable time is lost. There is a sense that being online is a time-consuming activity that often does not provide a lot of merits, e.g. looking at images, reading news headlines, looking at memes or short videos for entertainment. Infinite scrolling is thus not only an issue of digesting information but also perceived as a general time thief. Many participants were aware, that the digital media they used were designed to keep them engaged. Thus, digital media "is promoting a new time regime; one that pushes users to produce more and more data and generate more income and value." (Barassi 2020a, p. 26). Neele (27) alluded to her perception of using Instagram as a bad habit:

"But when I am on Instagram it is really just out of habit. But it is not even the case that I am looking at pictures from a specific account, but I want to, but I don't even know what I want. I don't know. As I said I am not explicitly looking at the pictures, but this is why I think it's so … so crazy how often you are on your phone but are not really doing anything with it. In the end, why am I using Instagram right now?"[24]

In contrast to her feeling of wasting time on Instagram and with her phone, Neele spoke of her 'screen time' in front of the laptop she uses for work in a more positive manner: "Well, my Macbook also reminds me that my screen time is extremely long."[25] This portrayal was more an expression of pride, than shame as she thought she had spent her time productively. Although

[24] Interviewed on 16/06/2020. Translated from German: "Aber wenn ich auf Instagram gehe, dann ist es wirklich nur irgend so ne Gewohnheitssache, aber es ist jetzt nicht so, als würde ich mir Bilder von einem bestimmten Konto anschauen, sondern ich möchte – ich weiß nicht einmal, was ich möchte. Keine Ahnung. Ich guck mir ja wie gesagt die Bilder auch nicht so explizit an, aber ich find deswegen ist es so, so krass, wie oft man an seinem Handy ist, aber gar nicht so wirklich was tut damit. Also im Grunde genommen, warum mache ich das jetzt mit Instagram?"

[25] Interviewed on 16/06/2020. Translated from German: "Also mein, äh, Macbook erinnert mich auch daran, dass meine Bildschirmzeit extrem lang ist."

engagement with laptops and desktop computers could also be interpreted as 'unhealthy' these devices were not symbolising the same image of a 'time waster' as smartphones did. For example, six hours spent with the phone could be understood as 'too much', although the findings show that this was a subjective matter. It was much harder for most to identify an amount of time that was appropriate than describing what would be excessive. Decreasing time spent on the smartphone as much as possible was portrayed as a positive achievement. To counteract unproductive time spent online, which was mostly associated with social media and watching videos, controlling one's 'screen time', or what German participants had called 'Bildschirmzeit', was an important way to quantify personal usage and control personal behaviour.

Screen time is a feature introduced by Apple in 2018 for its iOS systems and has also been integrated into the latest versions of Android phones. The application was developed in response to criticism that people would spend too much time on their phones (Prasad and Quinones 2020). Screen time can track how long a person has interacted with the phone, what apps were used and even offers to set a time limit on apps that a person might find distracting. When the allocated time is over, the app will notify the user and block the app until the next day or the user changes the settings. In addition, it also provides statistics on a daily and weekly basis for users. These statistics are presented as a way to take control over a bad habit ideally leading to self-improvement and increased productivity. However, monitoring screen time can also lead to a feeling of shame toward smartphone usage (Prasad and Quinones 2020).

Ideas of self-improvement and becoming a more productive individual are engrained in the neoliberal culture in which my participants grew up. However, this focus on the individual also shifts the blame from the people who design technology to make it as attention-capturing as possible to the individual. Time is a central commodity of capitalism and how we measure and perceive time has greatly changed with the advent of the industrial revolution (Martineau 2015). Today, we can not only measure our time with a clock but also attribute activities and measure our performance and productivity. When striving to be a productive person, the responsibility of failure is often internalised as an individual shortcoming. Quantifying and analysing personal behaviour thus align with a stronger societal turn towards self-improvement as opposed to structural change and support systems (Lupton 2016b). Technology and data are often seen as gateways to these improvements, although paradoxically – the solution to fixing issues caused by technology is using more technology. As Will Davies (2016) points out, these mechanisms have

attributed numbers with the possibility to improve personal well-being without actually generating wider economic, social and political changes that could resolve some of the main health issues of our time. The logic of personal improvement realised through adjustments to behaviour and habits neglects the intertwined relationship between human and machine on which digital experiences and practices are based. The design of digital media does demand our constant attention; however, they remain unchallenged because our attention is diverted to individual behaviour, most significantly the behaviour of young people, when the issues lie beyond personal choice.

Becoming a digital addict

Closely connected to the concerns of wasting time online are fears over digital addiction. The ethnographic descriptions above highlight the interwoven place of digital technologies in young people's everyday lives and the by now established reliance on them for daily tasks. Particularly the Covid-19 pandemic made many participants more aware of their dependence on their digital companions. As social face-to-face interactions were restricted, online interactions whether on social media, via messenger services or video conference software were often the only means to connect to friends and family. At the time of interviewing these social restrictions were still in place and it was unclear at what point they would be eased. Therefore, several participants reflected on how their use had increased due to the pandemic and made a clear distinction between their current digital interactions and those pre-pandemic:

"And now we are realising that, uhm, may it be things like, well certain things you can only do with the internet now, slowly but surely. Whether … it is also slowly going into the direction that you can't pay with money any more, but somehow all transactions are being made online. Especially now we're noticing this. Well that the dependence is becoming bigger, right? Especially in times of crisis. You are … well it's is difficult in the end."[26] (Lydia 26 y/o)

This feeling of dependence is not only related to fulfilling tasks of everyday life or communicating with others but is also experienced in a bodily and physical manner, where the interaction with digital media manifests for many as a habit. Dilan (22 y/o) is rather sceptical of digital media and

[26] Interviewed on 09/06/2020. Translated from German: "Auch jetzt merkt man das ja auch mit, äh, sei es solche Sachen wie, also bestimmte Sachen kannst du ja nur noch mit dem Internet, so langsam, machen. Sei es jetzt … es geht ja jetzt auch langsam in die Richtung, dass du, ähm, immer weniger mit Geld bezahlst, sondern halt alles irgendwie online abgewickelt wird. Jetzt ja gerade merkt man das auch. Ja, das einfach diese Abhängigkeit größer wird, ne? Gerade auch durch ne Krisensituation. Du bist, ja … also es ist schon schwierig so."

has erased all of her personal social media accounts. Nevertheless, her smartphone is an important part of her daily routine. She told me about how she attended an event where the use of phones and other digital devices was prohibited for a weekend. As she observed others and herself she concluded that reaching for one's phone was an automatic gesture, because people reached for them even when they were not there:

"We are just stuck with this. Well, you get the feeling that it [smartphone] has to be with you all the time. When people have a low battery they absolutely want to go home and quickly charge their phone. Uhm, and by now you can charge your phone on all trains, you can charge in several restaurants, but really, when it doesn't work, when you can't reach people over their phones everybody pretends as if something really, really bad happened."[27]

This interplay of discourses between psychological, social and physiological dependence is telling, as it creates a narrative of compulsive or uncontrolled behaviour which is characterised as disturbing and only visible in situations where technology was removed. As mentioned above, there is a discursive connection between digital technologies and mental well-being in public conversations. Fears of "smartphone addiction" among young people are frequently discussed in media outlets. Reporting "problematic smartphone use in young children" (Davis 2019) or asking "Is Your Child a Phone Addict?" (Homayoun 2018). Even scholars like Andrew Hoskins, use addiction as a way to describe our relationship with digital media proclaiming that "[w]e are all already addicts" (Hoskins 2017). I argue that this emphasis on addiction is underlying how young people view their own digital practices. While they might not feel like they are addicted, similar to wanting to be more productive, worries of being too dependent on digital media are ever-present and heavily relates to the fear of digital technologies doing something to people. This feeling of dependence was also expressed through discomfort and frequent attempts to detach oneself from digital media. A feeling that dependence interferes with genuine interaction with the world around us has been voiced on many occasions. Participants spoke often of wanting to live more in the moment and enjoying it, which also affected their willingness to take a picture with their smartphones, as this capturing was seen as a distraction, this aspect will be discussed in more detail in Chapter 7.

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[27] Interviewed on 14/12/2020. Translated from German: "Das sitzt halt in dir. Also du hast das Gefühl, es muss immer bei dir sein. Wenn Menschen keinen Akku kriegen, möchten sie unbedingt nach Hause und schnell ihr Handy aufladen. Ähm, mittlerweile kannst du in allen Zügen dein Handy aufladen, du kannst in verschiedenen Restaurants das machen, also es is wirklich, wenn es nicht funktioniert, wenn du Menschen nicht erreichen kannst über ihr Handy, wird so getan, als wär irgendwie was ganz, ganz Schlimmes passiert."

For example, Louise (27 y/o) mentions: “Well, I am now trying, when I am experiencing a beautiful moment to consciously enjoy it first.”[28]

Sometimes youth spoke of signs of a possible addiction within their close circles and gave examples of how this addiction would manifest. In an extreme case, Casper (19 y/o) spoke of a friend’s sister who would skip school to spend the day on her phone. Having had own experiences with addiction he said:

“For example the little sister, that didn’t grow up in a time where you went to the fields to smoke some weed, is now sitting at home with her phone and doesn’t go to school. And yes, that’s definitely addictive behaviour. I myself … I was one year in rehab when I was seventeen. So I know what I am talking about.”[29]

Casper’s descriptions highlight the feeling that using digital media might be damaging and that we are just in the process of finding out these effects. Not knowing what the internet ‘is doing to’ us creates a suspicion that is expressed as a caution to interact with these technologies. When it comes to children and teenagers, these fears become very prominent. Moreover, young people reproduce these worries. It is interesting, that Casper already placed his friend’s little sister as the younger generation, although he was only a few years older than her. Unlike conventional drugs, digital media is of course not a substance that can be consumed as such. The notions of addict and addiction are rather recent as they emerged in the late 19th century. What defines addiction is constantly revised and contested, but has been increasingly broadened beyond the ingestion of substances to activities like gambling or sex (Raikhel and Garriott 2013). Accordingly, popular terms like ‘digital detox’ that mark the removal from the addictive and toxic ‘substance’ of digital media have also emerged. While I do not intend to diminish the toll that constant interaction with digital media can have on young people or my participants’ experiences, the addiction narrative of digital media is also socially constructed. As Theodora Sutton (2020) mentions, psychological studies have remained inconclusive on the impacts of digital media on mental health and

[28] Interviewed on 27/05/2020. Translated from German: „Also ich versuch jetzt, wenn ich jetzt nen schönen Moment hab, den erstmal bewusst zu genießen.”

[29] Interviewed on 02/09/2020. Translated from German: “[…] zum Beispiel die kleine Schwester, die dann halt jetzt nicht in der Zeit war, wo man das Weed am Feld geraucht hat, die sitzt jetzt mit ihrem Handy zu Hause und geht nicht zur Schule. Und, ähm … das is auf jeden Fall Suchtverhalten. Ich war auch … ein Jahr im Entzug, so als ich siebzehn war, ich weiß wovon ich rede.”

communication skills. She speaks of the medicalisation of digital media, which marks certain uses as unacceptable. Sutton locates the root causes in the binary between technology as unnatural and physical interaction as more natural or even pure. As Sutton comments "Psychological proof of digital addiction or harm is unnecessary when considering the ways that technology, health and belief become intertwined through a cultural lens." (Sutton 2020, p. 22).

The addiction narrative strongly moralises digital usage and elevates those who are able to detach themselves from using these technologies. The older participants expressed admiration for friends who did not use social media or did not own a smartphone – although these were very few in number and usually only amounted to one person in their friendship circle. Showing that one is free and not dependent or even addicted to digital media is, therefore, also a social performance. At the school in East London, I once casually asked the group of students whether they could imagine a life without digital media after we spoke about all the different areas they used these technologies in. What followed was a loud choir of 'yes, of course!' or 'I can!'. Yet it was unlikely that any of the pupils would have been able to do their course or homework without their tablets as it was required by the school. This discourse emphasises the juxtaposition of a lived reality in which digital media is increasingly needed for everyday tasks and an imagined life without it.

Conclusion

The role of digital media in everyday life is an important part of understanding young people's memory making, because it situates the practices and memory in the wider context of these technological changes. Particularly the paradoxical relationship with social media represents an important part of digital memory. The presence and usage of digital media shape several aspects of young people's lives, hence, heavily influencing the practices that are involved in their memory making. Because digital devices are constant companions in young people's everyday lives, large parts of their daily activities are recorded, maintained and shared using these technologies. The emphasis on providing youth with an edge on the contemporary, often very competitive, job market means that they are introduced to it mainly as a way for learning and their wider education. While learning is promoted as a positive activity, digital interactions that are deemed unproductive are negatively connoted and should only be done in moderation.

This moralisation of digital media in productive usage and time wasters is constantly communicated to young people and internalised. The accounts of my participants presented in this

chapter demonstrate how prevalent worries of being harmed through digital media are and that it becomes an individual responsibility to keep these harms in check. This wider framing of these technologies also influences how young people evaluate their own memory practices online. As I will elaborate on in the following chapter, young people are often speaking of their online memories with emotional detachment. In general, the 'fakeness' of online media means, that their digital memories are frequently framed as less meaningful. Performing to not care about what is produced online is also rooted in the factors discussed in this chapter.

Chapter 5: Memory practices on social media

Memories are collected, shared and maintained through social media almost on a daily basis. The media practices surrounding such platforms are important as they give insight into how memory practices take shape here. With dominant platforms, like Facebook, being present for more than a decade, many young people have shared aspects of their early school and teenage years online and continue to grow personal memory archives throughout their young adulthood. Apart from images, these platforms also hold private messages, comments on posts or images in which they were tagged by others. In addition, these posts and messages hold information about the time and date of posting and in some instances even the location of where the picture was taken and uploaded. Personal memory archives on Facebook or Instagram represent memories of what a person has experienced as well as their social connections. While digital affordances offer new creative ways of memory making, they also restrict in what shape or form a memory is represented. In addition, digital infrastructures articulate media norms that are embedded in commercial interests and the sociocultural biases of their owners. It is this interplay of social interactions, digital affordances, infrastructures and media norms, that enable or hinder personal memory making. The resulting assemblage influences and co-produces the memories of the individual.

The discussions in this and the following chapters are a snapshot of the digital landscape at the time of fieldwork. To understand how social media has become a mode of personal memory, I will first outline the social media landscape in which participants find themselves. The economic and political implications of these platforms are best illustrated by the dominance of Meta (formerly known as Facebook) and their services i.e. Facebook, Instagram and WhatsApp. However, new players like TikTok, which has gained a widespread following during the Covid-19 pandemic, will also be factored into a lesser extent. Furthermore, this chapter will address the growing role of algorithms as online gatekeepers in memory making. Algorithms have become key elements in the architecture of social media sites and young people have integrated them into their imagination of digital media. Based on these contextualising sections, the chapter will move on to describing how participants use social media, to document and share their lives. Particularly, Instagram's role as 'a visual diary' will be explored as it supports the production of specific memory genres that highlight positive emotions and fit in with the platform's wider media norms. While these memories still represent personal interests, they are tailored towards what is accepted on the

platform and create a positive reaction from others. Lastly, personal memory practices linked to politics and historical events will also be presented. These will be demonstrated by witnessing historical events from an individual perspective and participation in global events as they unfold – highlighting the intertwined relationship between personal and collective memory.

The Social Media Landscape

Within the lives of the majority of young people, social media is ubiquitous. They facilitate communication with friends, access to news, entertainment, educational information and for some, it is even part of their professional lives or future job aspirations. During fieldwork, the dominance of social networking sites was highlighted by young informants using the term social media interchangeably with digital media and the internet. While not intended by participants, this synonymous usage hints at a wider shift within the infrastructures of the internet that are increasingly moving from various decentralised actors to a centralisation spearheaded by a few companies. The reshuffle of the internet started in the early 2010s when the internet was increasingly promoted as having entered a new stage – the web 2.0 (Poell et al. 2019). Web 2.0 emerged out of business and marketing rhetoric that suggested an improved and innovative version of the internet that fostered interaction, although it did not actually reflect a technological transformation of the internet. In fact, the term signifies a cultural shift that focuses on the internet's profitability through personalised advertisement and attempts to build the trust of investors (Barassi and Treré 2012; Fuchs 2014). These developments are also reflected in the growing emphasis on 'platformisation' within academic discourse. Platformisation refers more specifically to changes within the governance of digital infrastructures and points out that the shift to referring to digital networks as platforms marks a certain market ideology (Gillespie 2010). Like web 2.0, the term 'platform' has been introduced and popularised by the marketing departments of technology companies, because platforms evoke a feeling of stability and provide stable foundations to drive innovation (ibis:352); a promise that is particularly pitched toward advertisers, but has found its way into how people speak about and conceptualise the internet. This business language, representing particular interests, underpins aspects of how the internet and social media are perceived but also forms the foundation of its semantic apparatus.

The social media landscape is in flux with new platforms emerging, failing or being swallowed up by pre-existing larger companies that acquire them. At its core, social media consists of web

applications, the facilitation of social networks based on individual profiles and user-generated content (Obar and Wildman 2015). Throughout the past 20 years alone many social media platforms, forums and chat rooms have disappeared, which makes the characterisation of social media beyond specific websites difficult. However, one factor that has remained constant over the last decade is the growing dominance of the technology company Facebook, which renamed itself Meta in October 2021. Its flagship website Facebook is still the most popular platform with 2.38 billion users worldwide in 2019, growing from 766 million in 2011 (Our World in Data 2022). Meta's influence has spread and increased its reach far beyond its initial platform, through the acquisition of several popular businesses; most prominently Instagram in 2012 and WhatsApp in 2014. These two acquisitions are important because together with Facebook they form the three core applications used by my informants. Each of these three applications fulfils a main function. Because WhatsApp is not a social media per se, I will speak more about it in Chapter 7.

Facebook

Facebook is mainly used to stay in touch with friends and family that live abroad or former acquaintances and friends with whom they have infrequent contact. Particularly, for young people who were part of a diaspora, Facebook's global reach facilitated insight into the lives of their extended family, who they sometimes have never met physically before.[30] Apart from communication, most participants ceased to share images on Facebook or to write posts. In addition, they also had the impression that Facebook had become particularly prominent for the distribution of 'fake news' and as Anouké (23 y/o) said "Facebook is just ads now". This was mirrored by participants' impression, that most of their friends were no longer active on Facebook and, therefore, it had become rather boring as a platform. However, this decreased interest in Facebook did not cause participants to delete their accounts. A few mentioned that they appreciated the events function so much, which gives suggestions on what to do in a certain area, that they maintained their accounts. As Neele (26 y/o) described who had left Facebook a few years ago:

"Well, most of my girlfriends are still on Facebook, but are using it, if at all, only for events. Because it is of course pretty awesome when you get those event suggestions and what is going

[30] While convenient this sudden connectivity also meant, that these family members had insight into their lives and commented or liked their post, which could cause annoyance among young participants.

on in your area and so on. That's also the only reason why from time to time I thought 'Wow, for this it would actually be worth it.'"[31]

The decline in the active usage of Facebook amongst young people is not only present among my participants, but is also reflected in a loss of new registrations and engagement by people under the age of 18 over the last years in most Western countries (Heath 2021). To illustrate participants' impression that Facebook has become less interesting, I would like to give an example. When speaking to Louise, who was 27 at the time of the interview, I asked her if we could have a look at her Facebook account together. While opening the app on her phone she commented:

"Look my husband invited me to something. Uhm, yes a lot of advertisements right? There are also only a few people left who are still posting. Most of it is ads. Yes, well most of what I am seeing bores me too. A few years ago, uhm, some friends and I used to send tag us on something funny, but now you can do this on Instagram too. So, not very interesting [laughs]. But it's still useful for events. But otherwise …"[32]

These descriptions show that while a platform has previously been very central in young people's lives their popularity waxes and wanes. Hence, their function from a medium of direct communication with peers and family can easily turn into a mainly archival function as they preserve what has been posted. Facebook has a special role as a platform of the younger self, as this is where most young people have started out using social media platforms. Getting a smartphone or being allowed by their parents to have a social media account was often an important social step for them, which marked their maturity. Most older participants said they had gotten their first account around the age of 13-16. This matches the observations I had made at the East London School, where pupils were between 13 and 14 and had just gotten permission to create their first accounts. The school children, however, preferred using TikTok and Instagram. 13 is also the minimum age to create an account on most social media platforms. Therefore, for many participants, today aged between 19 and 27 Facebook represents a certain time of their lives. It

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[31] Interviewed on 16/06/2020. Translated from German: "Also die meisten Freundinnen sind noch in Facebook, nutzen es aber, wenn überhaupt, dann nur für Events. Weil da ist es natürlich immer ganz geil, wenn du diese Event-Vorschläge hast und was findet in deiner Nähe statt und so. Das ist auch der einzige Grund, warum ich ab und an mal wieder gedacht habe 'Boah, deswegen wär es jetzt eigentlich echt wert'."
[32] Interviewed on 27/05/2020. Translated from German: "Guck mal, mein Mann hat mich direkt zu irgendwas eingeladen. Äh, ja ist viel Werbung, ne. Da gibt's auch wenige Leute, die noch was posten. Das meiste ist Werbung. Ja, also es langweilt mich auch, was ich da sehe. Früher vor ein paar Jahren, ähm, haben dann Freunde und ich uns da immer auf irgendwas Witzigem verlinkt, aber das kann man ja jetzt auch auf Instagram. Also nicht so interessant [lacht]. Und für Veranstaltungen ist es halt noch ganz gut. Aber sonst …"

contains memories through the things they posted as well as the connections they made online, mainly to their peers. Hence, Facebook accounts themselves function not only as a mnemonic aid, but also as digital memory objects. While this of course is also the case with analogues objects like photo albums, Facebook also preserves the relationships that were important at a time when participants frequently used the platform. Although most no longer post and rather 'lurk' on Facebook to see what others are doing, the ability to also preserve connections with people to whom they have infrequent contacts is an additional motivation to keep their accounts.

Memory is also part of the platform's design. Particularly, during the early 2010s memory and emotion were defining elements of Facebook's timeline (van Dijck 2013, p. 205). Facebook has since changed its timeline from showing posts chronologically to algorithmically sorted recommendations, based on what people have viewed before and displaying customised ads in greater frequency. A shift that was felt by participants and reflected complaints about only seeing advertisements on Facebook. Most social media probe their users on what they are doing 'right now': Facebook asks "What's on your mind?" and Twitter wants to know "What's happening?". This prompt encourages people to post about what they are presently doing, implying that many shared things were not intended to become a memory. Facebook's mother company Meta continues to invest in research connected to memory, for example by working on artificial intelligence that automatically forgets certain information, by giving pieces of information "an expiry date" (Meta 2021). Moreover, Meta has a growing interest in children aged below 13 as they represent an 'untapped' audience, which could help to expand their business even further (Wells and Horwitz 2021). The view that Facebook was more popular with their parent generation, including aunts and uncles was often shared by participants and in turn, young people's older relatives did not use Instagram. Although, to the bemusement of young participants, a few parents, like those of Janine and Neele, had asked their children to show them how Instagram works and considered creating own accounts. This relates to academic findings, that young people seek out digital spaces to be with their peers (Livingstone 2008). Ben (26 y/o) even spoke of being annoyed by family members on Facebook who would contact him and ask uncomfortable questions.

Instagram

The young participants of this study were particularly active on Instagram, although to varying degrees. Instagram has about 1 billion active users with around 70 % of users being under the age

of 35 as of October 2021 (Statista 2022a). Therefore, most of my data and discussions of social media usage in this and the following chapter will be related to this specific platform. Instagram is a social media website that focuses on the sharing of images. Unlike on Facebook, it is not possible to create a post without a picture on Instagram. Furthermore, friendship requests only need to be confirmed when the account is private. Any images or videos that have been posted can appear in the feed of followers. Instagram also allows the creation of Instagram Stories. Stories are short 15 second long snippets that can feature either an image or video which will disappear again after 24h. The stories feature was particularly popular amongst participants, as they required less consideration of what to post, than images that are permanently uploaded to their profiles. Stories were used to document everyday activities and thoughts. To many, it was also a way to spark conversations with friends and followers, about what was posted, as Instagram allows direct messaging through stories instead of comments. Instagram's focus on visual media requires the ongoing creation and sharing of images and videos to generate interaction. Therefore, it also motivates young people to create new pictures and videos, while simultaneously facilitating the consumption of images.

Instagram is also popular with celebrities and other people in public life. Far from a place for egalitarian public participation, the platform represents a tiered system with influential people on top who bring advertisers and, thus, revenue to Instagram. These tiers are also reflected in which features can be used by whom. Certain features are 'unlocked' when a person has reached a certain number of followers. For example, in order to put an external link into a story, a person needs to have at least 10 000 followers and use a business account or a verified private account. These verification processes are often quite complex and require an individual to request formal verification and submit identification documents to Instagram. However, these requests can be easily turned down by Instagram without any further explanations. This stratification is most felt by ordinary people as they struggle to have their images seen by others, often even by their friends or people they know intimately. Therefore, Instagram promotes incentives to become popular by gathering more likes and followers.

Like on Facebook advertising is ever-present. Feeds are interrupted by sponsored content that pops up between every two or three posts on people's feeds. The same applies to the stories. As mentioned in the previous chapter, the commercial aspects of digital media are present in young people's view of it. Moreover, they are aware that the platform can be used as a means to earn

money for themselves. As Sophia commented (19 y/o): "Well, just the fact that you can earn money with it is crazy. "[33] Bloggers[34] or influencers are hugely present on Instagram. Even if an individual does not personally follow influencers, the platform frequently suggests popular profiles to follow, or intersects people's feeds with adverts featuring them. Hence, the ad-based economic model of the platforms is highly visible and so-called influencer culture was frequently referenced by young participants to distance themselves from it or to highlight what they saw as social media's superficiality. The ways in which commercial interests are perceived and integrated into young people's imaginary of social media is an important factor in understanding digital memory practices. The visibility of influencers and the norms embedded in Instagram are constantly consumed by young people and reproduced in their practices.

Influencer culture also emphasises the blurring line between professional and personal usages of social media. More than half of the participants aged between 19 and 27 have frequently used Instagram to promote their work and further their job prospects. Some even primarily used Instagram to develop professional connections and sell their work. Particularly, those who worked in the arts and entertainment industry or aspired to do so used Instagram as part of their career development. Casper (19 y/o) is a musician. He used his Instagram account as a means to create his business, create connections with other musicians and promote his music. Casper had tried to separate his personal life from his professional aspirations by creating a personal website in the past. However, he soon realised that finding clients who would commission him to produce music or buy the music he already created was much easier over Instagram. He mentioned the importance of showcasing his music in connection to his other interests and personality. Other participants doing political and entertainment work also used Instagram to promote events they were organising.

In addition to communicating with others, consuming content and uploading images, more than half of the participants also used Instagram for daily news and other information. Because texts in comment sections cannot be hyperlinked and only one external link can be added to a profile, informational content is usually specifically created for Instagram. As outlined in Chapter 4 news that participants accessed were produced by official broadcasters and newspapers, but also

[33] Interviewed on 07/04/2020. Translated from German: "Also ich find schon allein, dass du darüber Geld verdienen kannst, irgendwie schon so abgedreht."
[34] Only referred to as such by German participants.

independent news outlets and activists. As with everything on Instagram, these news are highly visual and explanatory texts are added to the captions and also directly embedded in videos and pictures.

Snapchat

Snapchat is a mobile application that allows users to directly send images, videos or messages to a receiver. In contrast to Instagram, Snapchat has been more focused on one-on-one communication. In addition, messages sent will disappear after a short amount of time. This ephemeral character and focus on direct communication distinguishes Snapchat from other social media. In 2021 it had 306 million users (Statista 2022b). Only a few participants spoke about currently using Snapchat, although several stated that they had done so in the past. Their interest faded when Instagram incorporated a similar feature in the form of Stories, that would let them share images and videos that disappear after 24h. Those who still used Snapchat occasionally said that it allowed them to be silly with friends or their siblings. Sophia for example still used Snapchat from time to time with her sister and another friend to send each other funny messages. Not having a record of what was being posted and using filters to change one's appearance to add humour lifted the burden of having to present a certain image to an unknown audience, as is the case on Instagram. Anouké, who also used Snapchat occasionally with her friends, stated that the disappearance of content was a relief that allowed her to be silly online.

TikTok

TikTok experienced a worldwide rise in popularity during the pandemic. TikTok is a video platform where users can upload short clips that are mainly featuring dance, comedic or educational content and according to TikTok's own estimates, it reached a billion users at the end of 2021 (Bursztynsky 2021). During fieldwork in 2020, only a few participants had recently created an account on TikTok to fight boredom and entertain themselves during lockdowns. Participants limited their activities to watching videos of others and sharing them with friends when they found them entertaining. None of the participants created their own content. Because accounts were only a few months old, I did not include the platform in conducting ethnographic work on it.

Interoperability and user retention

The social media landscape is varied and undergoes frequent changes. Nevertheless, as shown above, Meta's platforms take a special role because of their longevity. The company's strength lies in its ability to recruit a large number of people to join its services and to retain them. Social media are particularly attractive when they provide interaction with close friends, the possibility to meet new like-minded people and create a sense of community. In addition, Meta's platforms offer high interoperability so that content can be easily shared across Facebook, Instagram and WhatsApp. Due to Meta's dominance, it frequently emulates features from other platforms to keep its user base. For example, the story feature has been adapted from Snapchats-'Snaps' that also disappear after a certain amount of time. And with the rise of TikTok, Instagram has released a short video format called 'Reels' that are eerily similar to TikTok's video format. These factors made many young people stay although they often mentioned that they did not support the values Instagram projected (e.g. body images and superficiality) and the collection of their personal data. While there are caveats to being present on social media, like career aspirations and making connections, Meta also makes it hard for people to delete their accounts.

Most young people used Instagram and Facebook through applications on their smartphones. Yet, an option to delete a personal account through the app is non-existing. Instead, one has to use a desktop browser and use a specific link that can only be found through a web search since a direct option is also unavailable in the settings on the browser version. Only after using the specific link and logging into the account, can it be deleted. However, Facebook and Instagram further prolong the process by suggesting that a deactivation might be better because the account remains intact and can be reactivated later, whereas a deletion means a full erasure. This also explains, why some of my participants who said they had "left" Instagram were not sure, whether they had permanently deleted their account, disabled it or only deleted the app from their phones. Sophia, Didier and Neele spoke about having left Instagram, but subsequently returned to their old Instagram accounts or created new ones. Dilan (22 y/o) was the only participant who did not have any personal social media accounts. Nevertheless, she was still involved with Instagram and had a good knowledge of its workings, because she co-managed the account of her activist group. Although they had often considered leaving social media behind entirely, most young people believed that it was up to them how social media affected them. "I think, I think, it depends on what you want Instagram to be for you" (Anouké 23 y/o). This mirrors general attitudes toward digital media as a tool whose

usefulness or harm, depends on how it is used, putting the responsibility on individuals.

Social media offers opportunities to make and share memories, however, the commercial interests that shape their functions and the focus on data exploitation for profit make young people wonder what happens to their data. This uncertainty of how personal data will be used in the future, created discomfort about making social media a means to remember. When I asked if she felt that Instagram was a secure space for her memories Lydia (26 y/o) responded: "No, well I can't say it is a safe space because in a way you are handing over your images or other things you post."[35] In the conversations with participants, there was a general sense that control over personal information would be lost as soon as it was posted. Young people were generally unsure where their data ended up and suspected that it was generally used in more ways than told to the public. Nevertheless, social media platforms did provide a level of safety when it came to preserving memories. Platforms made the archiving, storing and management of images, posts and other media much easier than storing them on for example a personal device. On the other hand, several participants mentioned that they would not be sad if some of their images on social media just disappeared and did not consider these images as precious memories. However, during photo elicitation, many stated how nice it was to scroll back through their profiles and expressed emotions and attachments to the posts while reminiscing.

Media ideologies and norms within digital memory practices

Social media is often described as being void of social conventions, where hate speech and offensive language are rife. Because of this, social media is often blamed for dividing society (Hampton and Wellman 2018). The underlying impression that it is easy to become the victim of vicious attacks lets young people think about what they post twice. However, the interconnectivity is not endlessly open or goes in all directions. As mentioned earlier, hierarchies between users, which are enforced through platform infrastructures are creating rather vertical than horizontal networks. In addition to these stratifications, social media platforms do inhabit norms and moral codes that affect users differently. People bring their worldviews and moral codes with them, therefore placing expectations of how to behave on themselves and others. Even when people act

[35] Interviewed on 09/06/2020. Translated from German:" Nee, also ich kann jetzt nicht sagen, dass es ein sicherer Ort ist, weil du ja deine Bilder oder das was du postest irgendwie abgibst."

consciously against these expectations, it does not mean that they do not exist. Moreover, social media companies are increasingly asked to monitor the content on their platforms. Community guidelines, to which users should adhere, exist to help control content and violations can lead to suspension or even the deletion of accounts. For example, Instagram's rules include the following main points (Instagram 2022):

- Share only photos and videos that you've taken or have the right to share
- Post photos and videos that are appropriate for a diverse audience.
- Foster meaningful and genuine interactions
- Follow the law
- Respect other members of the Instagram community
- Maintain our supportive environment by not glorifying self-injury
- Be thoughtful when posting newsworthy events

These guidelines illustrate that creators of social media have certain values that they want users to adapt – not the least to protect themselves from legal challenges and their public image. Who develops technology is as important as who uses it, since norms are, sometimes involuntarily, also communicated through digital infrastructures themselves. Linguistic anthropologist Ilana Gershon (2010) addressed such embedded norms as media ideologies. She speaks of the materiality of media that defines media ideologies and distinguishes them from broader language ideologies. Gershon states: "[t]he structure of a technology helps to shape the participant structure brought into being through its use, simultaneously enabling and limiting how communication can take place through that medium, how the communication circulates, and who can participate" (285). Gershon further elaborates that people's ideas about how language, communicative technologies and other media function ultimately form the ways in which they are being used. Therefore, it is both the structure and how people think about media that define how it is being utilised (290). She also emphasises that no medium is ever introduced on an empty stage and immediately finds itself intertwined with "a web of media ideologies". Importantly, newly introduced media are generally perceived in relation to their predecessors, but equally change how pre-existing media are understood to facilitate communication (287). As ideologies are specific to a medium, the meanings created with this medium stand in relationship to it. Accordingly, media ideologies of social media have an influence on how young people use this medium and understand the memories created with it. For example, a common idea about social media is that it is not a place

for difficult or deeper conversations.

"So I think, social media cannot handle that nuance, or what you need to have – healthy conversations and connections, if that makes sense. I don't know, if you see it as a simple tool great. But as a … to resolve more complex issues, I don't think so." (Anouké 23 y/o)[36]

The vast majority of participants said they would avoid posting about their worries or serious things that have happened in their lives. Indeed, after analysing their posts I found that they predominantly shared happy or exciting moments and memories, particularly in their permanent posts. 'Spreading negativity' or displaying levels of vulnerability or sadness were generally avoided, because they did not feel like Instagram was a 'place' for it. This is also related to the so-called positivity norm on social media. Not only is this norm embedded in the expectations of people, but also in built-in features of the application. The effect of this bias is exacerbated when individuals interact with a large audience online, as opposed to closer friends (Schreurs and Vandenbosch 2021, p. 329). The positivity bias can be attributed to the media ideology of social media. The nuances in which media ideologies are expressed depend on belief systems, personality and cultural backgrounds and lead to subjective variations of how a medium is used. Despite the tendency to portray only positivity and happy moments, there are exceptions. For example, participants also shared images of loved-ones who had passed. Janine and Luca both posted about their cats being ill and tried to garner emotional support by posting about it on Instagram.

Media ideologies are also expressed through the establishment of social norms online. Several participants stated that they were cautious about posting too much as they did not want to flood other people's feeds. Being careful about how much is posted avoids being negatively perceived as annoying or spamming. Therefore, images need to have a certain value and should be important enough to be posted as the number of acceptable posts is limited. Norms also extend to posting pictures of others or tagging them. Emily (26 y/o) pointed out how in the early days of Facebook, other people would frequently tag her in images of night outs without it being an issue: "Everyone was like … Facebook was big. And everyone just uploaded to it. We used to take out like digital cameras and people just like uploaded 12 pictures from the night. Yeah. They could be very unflattering [Emily and myself laugh]. So I deleted them then." In contrast, she would be very

[36] Interviewed in English on 21/02/2020.

careful with what kind of images she would upload of others today.

"[…] the last time before lockdown, when I went away with some of my friends from school. And they were very much like if we're taking pictures, it's not for social media really. And I probably check with them, especially as one's got a kid, if it was okay to share it. I wouldn't just share, like a goofy picture, messing around and yeah. I think I would check. Not like at the time, like, however many years ago when it was all about us going on nights out and people just uploading. Nobody checked. It was just a straight upload, yeah." (Emily 26 y/o)[37]

Emily was not alone in this sentiment and most participants told me, that uploading pictures of others would usually involve their consent. In addition, like Emily some also voiced additional caution when it came to pictures of babies and children. Although non-consensual sharing of images can still happen. On one of my participant's posts with friends, I spotted that a person portrayed in the picture commented "Bitte löschen" – "please delete". Media practices are influenced by the norms and media ideologies communicated to young people through the usage of digital media. Their practices are not only expressions of embedded cultural and social norms, but also reproduce them. The *habitus* evolving from these practices ultimately shapes in what ways young people remember on social media as it determines what is acceptable to be shared. The arising bias to share happy moments is also questioned by young people as they often see social media as an improper place to discuss intimate or complex emotions.

Algorithms as actors and gatekeepers of memory making

If media ideologies and norms determine ideas of what behaviour is encouraged and what is punished, algorithms are the ones enforcing these evolving rules. In their simplest form, algorithms can be described as mathematical calculations that execute step-by-step instructions that can also be deployed to solve a problem. Hence, algorithms are central to most computational processes. Young people encounter algorithms almost daily as they sort their Instagram feed, recommend YouTube videos and Spotify music or sometimes even flag their content. Moreover, they can also recommend people to follow and facilitate new contacts: "Well especially in the LGBTQI+ community it has become something where you sort of … where you come across each other and are brought together through an algorithm."[38] (Luca 26 y/o). These recommendations are based

[37] Interviewed in English on 06/11/2020.
[38] Interviewed on 22/10/2020. Translated from German: "Also, gerade so in der LGBTQI+ Community is es halt auch schon was geworden, wo man sich quasi so'n bisschen ausfindig macht und durch nen

on data produced by users' previous behaviour that the algorithm uses to predict what kind of content an individual might engage with the most. Arguments for the usage of algorithms often advocate their usefulness in helping people to sift through the ever-growing masses of information on social media. However, algorithms have a more specific function for technology companies as they guide people to content with a lot of interaction. This fits the commercial interests of companies as they place advertisements around popular content to reach more people. By suggesting already popular content, these recommender systems mainly follow the interests of their owners rather than individuals. The emerging feedback loop or so-called 'filter bubble' shows people mainly things that match their tastes or worldviews, whilst invisible young participants were well informed about these effects. Didier's (20 y/o) remarks highlight how algorithms are experienced:

"And … yes the algorithms on Instagram are also a bit strange, right? I mean that in the end, uhm, yes people who like, uhm, well essentially it's about when you for example upload a picture, it's going to, then it will be shown for others at the very top only, if you're, uhm, in a way popular. When there is a lot of interaction, when there is a lot of interaction with your account. When people watch your stories, react a lot to it and also when your photos, when you upload a photo. Simply more likes and comments and so on. So in the first hour or so, it will be shown to more people. A bit strange."[39]

When it comes to digital memory making algorithms are an important but elusive factor. Algorithms are frequently adjusted, but these changes are rarely announced and instead felt during digital interactions. Neele (26 y/o) described how a sudden drop in likes had made her feel bad about the images she posted until she realised that she might have received fewer likes than usual because of changes made to Instagram's algorithms. In the digital memory assemblage, algorithms enforce the commercial interests and social norms of technology companies that are eventually reflected in what young people post. In Neele's case, it made her question whether the picture she had posted was a good one and made her think about deleting it. This example highlights two important elements: Firstly, the incentive to post is often to get a reaction from others through

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Algorhytmus zueinander geführt wird."

[39] Interviewed on 06/08/2020. Translated from German: "Und … ja die Algorithmen bei Instagram sind halt auch n bisschen komisch, ne. Also dass im Endeffekt, ähm, ja Leute die halt, äh, also eigentlich geht's halt, wenn du jetzt n Foto beispielsweise hochlädst, dann wird das nur ganz oben angezeigt bei den andern Leuten, wenn du, ähm, so beliebt bist in dem Sinne. Wenn viel Interaktion, wenn es viel Interaktion mit deinem Konto gibt. Wenn deine Stories geguckt werden, viel darauf reagiert wird und auch wenn du Fotos, du n Foto hochlädst, eben mehr Likes und Kommentare und so weiter, das halt in der ersten Stunde oder so was, dass das für mehr Leute auch angezeigt wird. So n bisschen komisch."

likes, comments and other forms of reactions. Secondly, the algorithm is a factor which hinders wished for reaction. Because ordinary people have fewer followers and engagement on Instagram their content reaches fewer people by default. This goes back to the hierarchisation of users as discussed earlier. Whether intended or not, algorithms also produce more frequent experiences of shadowbanning. Shadowbanning is a term that has been defined by users themselves and describes the hiding of posts from a larger audience. These 'bans' happen without official notice and are mainly felt by users through a decrease in likes and engagement. This banned content has been deemed vaguely inappropriate and mainly affects artists, activists and sex workers particularly if they are women (Are 2021). Nevertheless, because these bans are not official, the decisions behind them or if they are indeed actual bans are difficult to uncover. Like algorithms themselves, the enforcement of rules on social media remains obscure. Content moderation on social media sites has gained greater importance as the public demands greater vigilance against harmful content, mainly classified as violence, sex, misinformation or hate speech. Increasingly, human content moderators are aided or even replaced by algorithms, to sort through large amounts of information (Gorwa et al. 2020). However, algorithms are not able to make nuanced decisions or contextualise content well. For example, a certain degree of nudity might be acceptable in one culture but judged as obscene in another. Furthermore, nudity might be socially more accepted when used for artistic or political expression, but less so when it is used for sex work.

One of the male participants, Luca (26 y/o), had his account blocked by Instagram because he had violated the guidelines. However, Luca did not understand how and why the decision was made or in what ways he had violated Instagram's guidelines. He contacted Instagram to get his account reinstated but was told a reinstatement was only possible for accounts that have at least ten thousand followers. Luca had expressed great sadness about losing his account, which he had used for nearly ten years. With the deletion, some of his personal memories were also forever gone since he had not backed up all of the posted photos. Luca's example highlights the obscurity through which such decisions are being made, as it is not clear whether an algorithm had flagged Luca's content or if it had been reported by an individual. Furthermore, Luca's situation shows the fragility of memory making on social media and the tiered system that gives people more power based on their followership. The ways, in which content is promoted and endorsed or reprimanded and punished, fully lie in the hands of platforms and their decision makers. Algorithms act according to the cultural worlds and interests of their makers, therefore, containing biases that influence their decisions. Anthropologist Nick Seaver (2017) suggests that algorithms can be

conceptualised as culture themselves. Accordingly, their decision-making on social media reproduces often culturally specific logics to a diverse global audience. Hence, algorithms function as gatekeepers or 'custodians' as Tarleton Gillespie calls them (2018).

This gatekeeping directly influences media and memory practices of young people as they try to circumvent barriers to be seen. I have made a similar argument in a conference paper at the Human-Computer Interaction International 2021 (Krueckeberg 2021) but would like to further elaborate on the aspect of the imaginary. As shown, algorithmic decision-making and activity lack transparency making them obscure and difficult to grasp. Yet, their presence has ripple effects that are felt by young people. To fill in these blanks young people create quite elaborate imaginaries around them. Annette Markham (2020) defines the imaginary as follows: "Most basically, we might think of an imaginary as what emerges as a person speculates about something they do not know, casts into the future, past, or elsewhere than the 'right here, right now' to think about what the world or life might be like, was like, or is like in another time/space." (4)

While media ideologies show how we think about a specific medium based on what we know about it, many processes forming digital media remain invisible to people. As part of young people's imaginary of digital media, algorithms have expanded from specific computational knowledge to a term describing everyday encounters and activities of young people. Together with media ideologies and norms, the imaginary shapes young people's memory practices. Interestingly, most participants referred to algorithms on social media in a singular form. Whether it was the Facebook-Algorithm, the Instagram- Algorithm or the YouTube algorithm – 'the algorithm' was framed as an actor that was powerful and somehow always a step ahead. 'The algorithm' is conceptualised as an adversary who while remaining nebulous, heavily impacts what they can and cannot achieve online. Moreover, the algorithm was also identified as the strategist who lures them into spending too much time online. Luca (26 y/o) spoke of his recent experiences on TikTok: "[…] but, uhm, somehow it really has a lot of addictive potential because you go just from one video to the next and they really have chosen this algorithm so well, that you're really being bombarded with what you somehow want to watch. And I am trying to pull a bit back from this now."[40]

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[40] Interviewed on 22/10/2020. Translated from German: "[…] aber, ähm, das hat halt irgendwie wirklich wahnsinnig viel Suchtpotenzial, weil man ja wirklich von einem Video zum nächsten und die haben halt wirklich diesen Algorhytmus sowas von ey gut rausgefunden, dass du wirklich nur noch mit dem

Algorithms as part of the imaginary are more frequently collectively discussed, which in turn strengthens young people's awareness. Larger or commercial accounts often ask their audience to like, comment or share their content so the algorithm picks it up. There are even specific posts circulating on Instagram that explain how to most successfully support someone's content. In addition, online articles exist that advice on how to bypass the algorithm (e.g. Thomas 2021; Le 2021). However, most of these discussions and advice centre on how to make content more appealing to the algorithm, highlighting attempts to turn algorithms from gatekeepers into useful tools. Interactions with the algorithm are mainly intuitive, but some participants like Ben (26 y/o) tried to be more strategic about how to make use of the algorithm. He claimed to have cracked the algorithm so that he would only get recommendations he would find useful. Playing and exploring with the algorithm led him to become more conscious of what he was looked at or liked as otherwise, his feed would contain adverts or posts he did not like. In his opinion, he had achieved this by strategically choosing and engaging with the types of content he wanted to see in the future. Whether young people actually manage to circumvent the algorithm is questionable. However, the important part is that they are a strong part of their imaginary of social media. How algorithms exactly work, was rather vague to participants. Only Frederik (22 y/o) who studied business information systems had more knowledge about the technical processes and was aware of the large amounts of data algorithms run through:

"It's a huge data field, it's not about, uhm, when you look at it, it's about structures and, uhm […] that's far too much data. No one is looking at it in detail. It's about general structures and then some user accounts will be algorithmically sorted and uhm, no one is looking at it on a case-by-case basis."[41]

In addition, to recommending content, algorithms on Instagram also make suggestions on which Instagram stories should be saved in personal archives, which allows users to reuse their stories that would normally disappear after 24h. Thus, these suggestions influence young people's

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bombardiert wirst, was man irgendwie gucken will. Und das versuche ich jetzt gerade, so'n bisschen zurückzufahren."

[41] Interviewed on 09/08/2020. Translated from German: "Das ist ein, n riesiges Datenfeld nur es geht um, ähm, wenn man sich das anguckt, geht's um Strukturen und, ähm […] das sind viel zu viele Daten […] sowas guckt sich keiner an. Es geht halt um die die generellen Strukturen und dann werden halt manche Benutzerprofile algorithmisch halt in irgendwas eingeordnet und, ähm, keiner guckt sich das in nem Case-by-Case an."

decision-making processes regarding what should be kept for the future as a memory.[42] Hence, algorithms are important articulations that actively shape memory practices, within the memory assemblage. In the memory assemblage, algorithms directly influence what is remembered by their ability to promote or hide content according to the rules and norms of social media platforms. This means they actively shape what kind of memories are shared. Algorithms are not conscious actors, but more than mere mathematical calculations, because they are making decisions with 'real life' consequences. These effects are emphasised through algorithms' increasing deployment beyond social media to mitigate complex social issues like policing, hiring practices or well-fare (Ajunwa 2016; Eubanks 2019; Noble 2018). Because of their elusive character, it is easy to forget that algorithms are made by humans and contain our worldviews and cultural biases. Treating algorithms as socio-technical systems instead of a series of instructions can illuminate the relationship between them and people (Krueckeberg 2021).

It's like a visual diary – remembering on Instagram

Diaries are important mnemonic aids, which have helped to gain insight into historical events and have become a literary genre in their own right. Diaries are usually a highly personal object that many decide to keep to themselves. Chronicling thoughts and events of the day to be remembered later on is a great example of personal memory and the importance of capturing the everyday. For, participants Instagram often took the functions of a diary with the added benefit of being able to communicate visually and instigate conversations with others.

"And partly, well it was really a thing. Okay, you are somehow compiling a photo sequence, that you somehow like and it is really a kind of, kind of diary-thingy. Because somehow they're of course photos where, I don't know, where friends or things you experienced and so on, are depicted."[43] (Sophia 19 y/o)

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[42] In addition, up until November 2021 Facebook used to apply facial recognition technology, which deploys algorithms to identify biometric points in people's faces to identify them and provide suggestions about who to tag. This facial recognition feature was also part of how people connected their memories on Facebook with others.

[43] Interviewed on 07/04/2020. Translated from German: "Und dass es teils halt wirklich dieses Ding war, okay du stellst da jetzt irgendwie ne Bildabfolge zusammen, die dir irgendwie gefällt und wo das wirklich dann so'n Tagebuch-Ding ist. Weil das ja natürlich auch irgendwie Fotos sind, wo dann irgendwie, keine Ahnung, Freunde oder Sachen, die man dann erlebt hat oder drauf sind einfach."

"For me, Instagram is a kind of a photo album, where you can just post some nice memories."[44] (Louise 27 y/o)

Similar to diaries photos have been a popular and long-standing way of preserving and sharing memories. Photography is a crucial mnemonic tool and with the growing importance of visual communication online, its role and potential for memory making are only expanding. Thus, Instagram combines the mnemonic qualities of photography and the diary. One of the motivations for young participants to keep such a diary was to preserve nice or beautiful moments, often explicitly mundane in nature. On Instagram, users can decide whether they keep their profiles visible to certain friends or if they set them public, where anyone visiting their profile can see the content. Out of the fifteen interviewed participants using Instagram, six used their accounts in the private setting whereas the remaining nine kept their accounts public. Interestingly, whether their accounts were open or closed, participants often spoke of wanting to "capture something publicly". This speaks of the strong wish to connect with others through social media accounts. Publicness of posts was not necessarily tailored to a wide range of people and mainly applied to reaching out to people they already knew or the wider networks they were part of. As several scholars have pointed out sharing images and memories online mainly aims at communicating with peers (Durrant et al. 2011; van Dijck 2007). Therefore, sparking conversations with others remains a central motivator for sharing on social media. Participants used personal images to either specifically speak about the image itself or as a way to talk about a related topic. Particularly, the stories function on Instagram, which allows the posting of images temporarily, was used as conversation starters rather than intentional preservation of personal images. Instagram stories' affordances aid this communication as they allow one to directly react to the image or send a private message through the story. As Janine (26 y/o) commented:

"[…] well, I believe a lot of conversations are getting started through it and also with friends, when people say 'Hey cool, you've been there as well? How was it?' And I'm reacting the same way when friends are eating out somewhere and it looks good and then I say: 'Hey, cool. I didn't know this yet.' I believe you're also communicating through it with your people somehow."[45]

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[44] Interviewed on 27/05/2020. Translated from German: "Für mich ist ja Instagram irgendwie auch wie so'n, halt n Fotoalbum. Wo man einfach schöne Erinnerungen reinposten kann."

[45] Interviewed on 08/07/2020. Translated from German: "[…] also, ich glaube dadurch entstehen halt auch viele Gespräche auch so mit Freunden wenn Leute sagen 'Hey cool, du warst auch schon mal da? Wie war das da?' Ich reagier genauso, wenn Freunde irgendwo essen sind und das sieht gut aus und dann sag ich 'Hey, cool. Das kenn ich noch gar nicht.' Ich glaub, man kommuniziert darüber ja auch so mit seinen Leuten irgendwie so'n bisschen."

The wish to establish direct communication also leads to taking pictures more frequently. Several participants spoke of experiencing a certain automatism to take images for Instagram throughout their everyday. In addition to this acquired habit, the platform itself also demands the constant creation of images and videos to interact with others – without visual content, one cannot post on Instagram. Louise (27 y/o) also used images to communicate with her friends. For her, it also became a way to show her friends she was thinking of them during the first couple of months of the Covid-19 pandemic. As shown in figure 3, Louise tagged her best friend in the caption writing: “[*@friend’s name*] about a year ago <3 Can’t wait to enjoy the sunny days with you again #happytime #sunnydays #goodvibes” To which her friend replied:” SAME!!! <3”

Figure 3: Instagram post showing two glasses of white wine

Louise said about her intentions for posting the picture:

”Actually, indeed I have once, I think I recently posted a nice day from last year where me and my best friend were drinking wine [laughs] spontaneously the whole day. And this time [when the picture was posted] was during Corona. It was also a kind of ‘Hey, I am missing this a lot.’ And somehow you always want to give the other person a nice feeling.”[46]

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[46] Interviewed on 27/05/2020. Translated from German: “Hab ich tatsächlich auch einmal wirklich, ich glaub letztens bei nem Post hab ich nen schönen Tag vom letzten Jahr, wo ich mit meinem besten Freund, ähm, Wein trinken war so ganz spontan [lacht], so den ganzen Tag. Und ähm, da war halt gerade Corona, da war das auch so’n ‘Hey, ich vermiss das voll’. Und man möchte ja irgendwie auch der Person irgendwie n schönes Gefühl geben.”

Accordingly, motivations to keep a visual diary go beyond the generation of likes. Especially during the still ongoing Covid-19 pandemic, Instagram was a way of communicating emotions and thoughts to others, particularly friends. Posting memories on Instagram is a way to create intimacy over physical distances. Nevertheless, having a visual diary on Instagram remains marked by paradoxes and highlights young people's complex and ambiguous relationship with it as attempts to connect to others and express genuine emotional connection are questioned because of the medium's reputation.

Instagram posts as representations of memory genres

Michele Zappavigna (2016) speaks of emerging visual genres on Instagram, that represent a shift in personal photographic practices (289). Based on the visual representations participants have posted online and the observations I made on Instagram, I have categorised the types of images I found into what I call memory genres. I have chosen to refer to them as genres, because they often match photography genres, such as portraits, travel, food, landscapes pets, home décor, art, event (e.g. concerts or festivals), sports, music, activism or fashion. However, the posts of my participants also included more social media-specific genres such as selfies. By referring to these genres as memory genres, I aim to emphasise their mnemonic qualities and the role of images in communicating certain types of memories, thus shaping what will be remembered through social media. The genres presented here are not all-encompassing and mainly reflect individual interests of participants that align with content generally popular on Instagram. I will speak shortly about the travel and food genre to exemplify how these genres are embedded in young people's practices and their implications for their personal memory making.

Travel photography is a particularly popular genre, which is accompanied by certain texts in the captions like aeroplane or palm tree emojis and hashtags like #travel. Moreover, geo-tagging was a feature that helped young people to add information about the places they visited and helped others to discover these places for themselves by showing them on a map or suggesting other posts taken at the same place. Geo-tagging pictures were also used to remember exactly where the picture was taken. Travelling as an activity has a certain cultural currency, that communicates a person's social status and reifies social hierarchies (Smith 2021, p. 620). Travel images

demonstrate having the financial means to travel and show certain adventurism, which is an important part of representing the self on Instagram. Travel as a pivotal memory was also highlighted during the digital storytelling workshop as most students had chosen trips they had done, as the subject of their digital stories. It was also through travel that economic disparities between pupils became more evident, as those who were not able to travel to faraway locations often struggled to find a memory that was 'interesting' enough to share.

Figure 4: Instagram post showing a street scene in Chiang Mai, Thailand

Figure 5: Instagram post showing a road in Taipei with bordering palm trees

The profiles of participants showed a personal preference for posting certain genres. For example,

Janine and Louise enjoyed sharing many pictures of food they had either cooked themselves or eaten outside at restaurants. They also shared the locations of the restaurants in their posts. For Janine, this was also about showing others where one could find nice things to eat and drink. In addition, she enjoyed seeing this type of content posted by others on her feed. The food genre was divisive amongst participants. Many mocked it as too mundane and used this type of post as an example of when people were too frequently sharing banal parts of their lives. While the food genre is not a niche, it highlights how some posts are more valued on social media than others.

Figure 6: Instagram post showing two pizzas

To young people, what they post on social media should also be a representation of their interests and their personality, but needs to align with what other people might want to see. An imagined audience is, therefore, always factored in. Although aimed at being a reflection of their interests and personality, the content was often quite limited and most profiles featured only 2-4 different genres. Young people tried to portray a cohesive image by only focusing on specific topics. However, having a profile limited to a certain type of content is common advice found in popular articles that provide tips on how to gain more Instagram followers (Chacon 2017). Particularly, for young people who wished to work in a creative field showcasing personal work on Instagram was important to further their careers and to network.

'It has to look good' – the aesthetics of Instagram memories

Images and videos posted on Instagram not only fit a certain genre but are supposed to fit the

platform’s overall aesthetic. Similarly to posting only certain types of images, finding an aesthetic on Instagram was motivated by attracting like-minded people to personal profiles. I discussed with Lydia what makes her want to share an image. She emphasised that the content of the image is important. When I asked her, if she means that content was more important than how an image looked she said: “Yeah, well okay. The aesthetics also have to be right of course [both laughing]. The aesthetics do have to be right. I’m not sharing pictures that have super shitty quality. Or that one would think ‘Okay, what kind of rubbish is this?’ I also don’t like to share vulgar things.“[47]

The creation of a visual diary on Instagram requires a lot of thought, but can also be laborious and demand a lot of time. Jonas (21 y/o) who aspired to become a personal life coach, even planned his profile according to a colour code. He mainly used images he took on his travels through Asia at the beginning of 2020. Jonas took the images to keep them as a memory of his trip but reused them now as backgrounds for his posts that include inspirational quotes or asked questions about life that currently moved him. The colour green was predominantly featured in his posts depicting plants, forests or hill sights. Jonas even alternated these aesthetics, shifting from a quote-based image to one depicting a scene of his travels or himself, followed by another quote and so on. This arrangement gave Jonas’ Instagram a recognisable aesthetic characterised by symmetry and intended visual repetition.

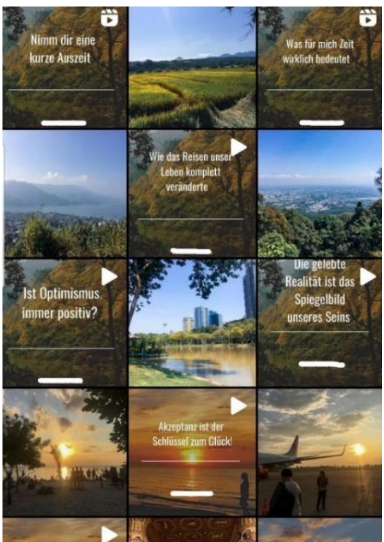

Figure 7: Screenshot of Instagram grid

[47] Interviewed on 09/06/2020. Translated from German: “Ja, ach so, okay. Die Ästhetik muss natürlich auch stimmen. [beide lachen] Doch die Ästhetik muss natürlich auch stimmen. Ich teile jetzt keine Bilder, die jetzt irgendwie qualitativ so richtig kacke sind. Oder wo man jetzt irgendwie denkt: ‘Okay, was ist das denn jetzt für’n Scheiß?’ Ich teile jetzt auch nicht gerne so vulgäre Sachen.”

Therefore, the aesthetics of such memories and their potential to be repurposed in the context of Instagram were carefully planned and considered. This attention is also extended to the writing of captions and usage of hashtags, making the creation of posts and sharing of images work-intensive and time-consuming. Participants brought up multiple times, that time was required to experiment with the profile, develop needed skills to create interesting posts and achieve the desired look of specific images and their feed as a whole. Therefore, a variety of images needed to be posted regularly to keep other people interested. Particularly female participants like Lydia, Louise and Neele were wary of posting to many selfies in a row so they would not appear too vain or their profiles become too repetitive.

Whether aiming to turn their Instagram account into a source of income or not, I argue that Instagram nudges young people into professionalising their personal photography. Firstly, many images imitate editorials of fashion magazines through their composition and the postures that young people take in them. For example, participants like Didier (20 y/o) and Femi (26 y/o) enjoyed the creativity that goes into producing these fashion images, but also aimed at making fashion and modelling a viable career for themselves. Nevertheless, even participants who did not aspire to such careers would model from time to time for friends or emulate the aesthetics of fashion images. Ben (26 y/o) commented on how his friends and acquaintances would emulate such professional photography:

"[…] meanwhile some people are making some kind of photos and pretend to be some kind of Vogue-models or something like that […] Because they got a photographer for fifty quid at some point. And by now everyone can take good pictures and put up a setting just to project the image that they somehow become super famous now and are doing crazy shootings and so on."[48]

Indeed, several participants had images on their accounts taken by a professional photographer and vividly retold their experiences of the photo shoot when we discussed the image during photo elicitation. For example, Lydia remembered shivering in the cold when taking pictures early in the morning on a field with a friend who was a photographer, while we looked at the photo on her Instagram. Most participants stated explicitly that they wanted to keep their feed aesthetically

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[48] Interviewed on 14/07/2020. Translated from German: "[…] mittlerweile machen welche irgendwie Fotos oder so und tun so, als wären die irgendwelche Vogue-Models oder so […] Weil die halt sich für nen Fuffi nen Fotografen mal besorgt haben. Und jeder kann mittlerweile gute Fotos machen und das Setting aufbauen, nur um dieses Gefühl zu vermitteln, dass sie irgendwie gerade voll fame geworden sind und jetzt krasse Shootings machen oder so."

pleasing for themselves and others. The rising standards for personal photography also imply the growing expectations of young people to recreate high quality and professional-looking accounts. The overlaps of presenting a private and professional self will be discussed further in Chapter 6.

In addition to young people improving skills and professional assistance, features on Instagram support the editing of images. Applying augmented reality filters that add animations to photos and videos or filters that improve an image's lighting and colour opens new ways to alter images and tells stories through them. These features thus offer room for young people to experiment with photography as an expressive and artistic medium. However, filters and other features also follow trends and become quickly outdated. The application of such features is then associated with this time, when many people applied this 'trendy' visual manipulation to their pictures. For example, the Boomerang feature that would cut short videos into a short repetitive loop was very popular in 2017 and filled people's feeds at the time. When editing features, like Boomerang, become outdated, the aesthetics they produced serve as reminders for a certain time. Another example I observed when scrolling through older images with participants was that some were amused by their intensive usage of sepia or black-and-white filters, which appeared very outdated to them now but also filled them with nostalgia.

Archiving posts

As noted by Veronica Barassi (2020b) archival time is one of the three temporalities facilitated by digital media. The ability to use social media as an archive for personal memory is an important part of young people's practices. For example, during the digital storytelling workshop, one pupil called Damyan stated that he had problems bringing images to the class that he wanted to use for his story. Damyan's story was about an away match he had with his football club in Bulgaria, but all of his images were uploaded to Instagram and he did not have the originals on his phone and could not transfer them to the iPad we had worked with. Particularly, the images that were uploaded by his teammates and trainers were out of reach to him, which signified problems of access to personal memories, but also the important role Instagram had taken as an archive. Furthermore, Instagram's position as a way to preserve personal memories has been extended through the archive feature introduced in 2017. The archive allows users to pull posts from the feed into an interface that can be organised and ordered chronologically. Archiving allows hiding

content from others while keeping it available for oneself, including any comments or likes the posts have garnered. Therefore, young people have the option to keep memories for themselves without having to delete or lose them completely. When asking Neele whether she has previously used the archive function, she explained:

"It could be a year ago, but in any case, I've used it before for a while and thought that it was actually quite good, because having so many pictures I couldn't bring myself to delete them completely, because then, I still have those from my old phone, you know. Or somehow, yeah they are no longer accessible to me in this way. And, I think, it is something else when you have the image in its original quality and then somehow, you click on, uhm, details on the image and then you like see it was taken in this place and that place at this or that time and this is different from making a screenshot from all pictures on Instagram and keep them, you know? And this way I have them for myself, but without anyone else seeing them."[49]

The same archiving function can be applied to stories which would otherwise disappear after 24h. Stories are automatically saved in the archive and can be later assembled into highlights, permanent stories that are added to one's profile. Instagram also makes suggestions on which stories should be added to highlights, thus, assisting people in their curation. The archive function aids in the retention of users. People who feel uncomfortable with their pictures being publicly seen keep their images and related information on the platform that would possibly be deleted otherwise. The avoidance of loss overshadows privacy concerns and makes young people more invested in keeping their profiles.

Looking back – Affect within Instagram posts

A visual diary on Instagram was not only used to communicate memories or have a place to preserve them, but also a mnemonic aid that sparked remembering. Participants would frequently claim that the things they shared online were less personal to them. Louise for example said, that

[49] Interviewed on 16/06/2020. Translated from German: "Könnte auch vor nem Jahr gewesen sein, aber auf jeden Fall hab ich das schon mal genutzt vor ner gewissen Zeit und fand das so an sich ganz gut, weil ich bei vielen Bildern halt irgendwie nicht übers Herz gebracht hab, sie komplett zu löschen, weil ich sie dann, das halt auch noch von meinem alten Handy hab, weißt du, oder irgendwie, ja die stehen mir so halt gar nicht mehr zur Verfügung und es ist, find ich, was anderes, wenn du das Bild in Originalqualität hast und dann irgendwie, du gehst auf, ähm, Details bei dem Bild und dann siehst du, es ist halt an jenem und jenem Ort um die und die Zeit aufgenommen worden und das ist halt was anderes, wie wenn ich jetzt von allen Bildern in Instagram Screenshots machen würde und die dann so behalten würde, weißt du? Und dann, so hab ich die dann für mich persönlich aber trotzdem hat sie niemand anders."

she would not become 'melancholic', if her images disappeared. Thus, most participants conceptualised their social media accounts as mostly temporary storage for their memories. While the capability of Instagram to hold and enhance memories was appreciated, it was not trusted. I link this reaction to societal reservations towards digital objects that frame them as less valuable than physical objects. However, in practice young participants portrayed the same affection for digital memory objects as a physical photo might have.

During photo elicitation, most participants commented on not having gone through all their posts for a while and only a few revisited it occasionally. When actually remembering the reasons for posting an image, the conversations that sparked from it in the comment section and the event itself, participants developed quite elaborate narratives around their posts and portrayed a variety of emotional responses. While scrolling through their posts was sometimes a source of amusement, it also involved happiness, embarrassment, sadness, melancholy and nostalgia.

Instagram's affordances create a specific way to build connections to memories. Particularly the curation of posts and the personal profile strengthen attachment and the relationship to digital memory objects. For example, Janine (26 y/o) had archived stories i.e. short clips and photos of her cat into highlights that were visible on her profile, reaching back to the time she first got the cat. In our conversation, Janine usually talked about her Instagram account and its meaning with little affection. However, when the conversation turned to the images she posted of her cat her expressions changed and she acknowledged:

"I believe the only emotional thing that I have experienced recently, was that I looked around in my story archive and then had a look, because […] I got a new iPhone and all the stuff with the Cloud didn't work properly at the beginning and I frantically searched for the photos of my cat, when he was still small. And then I had a look into my stories. This was such an emotional moment. At that point, I thought 'Oh no, I need all of this back.'"[50]

Through my participant observations on Instagram, I saw that Janine posted stories about her cat almost daily. When we went through the highlights of her cat together, she commented on the

[50] Interviewed on 08/07/2020. Translated from German: "Ich glaub, das einzige Emotionale, was ich letztens erfahren habe, als ich in meinem Story-Archiv rumgeguckt hab, und dann hab ich geguckt weil […] ich hatte n neues iPhone und das mit der cloud hat alles nicht so ganz funktioniert erstmal und ich hab dann krampfhaft gesucht nach Fotos von meiner Katze, als die klein war und dann hab ich in meine Story-Highlights geguckt, das war so'n emotionaler Moment gewesen. Da hab ich gedacht 'Oh nein, ich brauch das alles wieder.'"

small clips fondly and told me about the situations they were taken in. The chronological order of the highlights also gave the impression, that we saw her cat 'growing up' with each little clip we watched. Instagram's affordances create affect and intimacy, particularly through the capability to compress and connect time. The highlights created a narrative structure and constructed the experience of continuity that sparked reminiscence and a nostalgic feeling of thinking back to when the cat was still a kitten. The affordances aided Janine in her curation and to build this narrative over time for her to remember.

Instagram as a mnemonic aid also sparked feelings of sadness or loss. When I went with Femi (26 y/o) through the pictures on his Instagram, he stopped at an image of him and two of his former friends. He spoke of how he used to be extremely close to the two young men, almost seeing each other as brothers, but that they had started to drift apart shortly after the image was taken. Femi said that he was sad about the ending of the friendship, but that it was important to him to keep the image on his Instagram profile, because these friendships were so integral to that specific time of his life and that the post made him think of the good times, they had experienced together. Whether representing beginnings like the highlights about Janine's cat or endings like the photos of Femi's former friends, digital memory objects can evoke strong emotions. Instagram's affordances provide a very specific way to curate personal memories and support the experience and tracing of the passage of time.

Politics, remembering historical events

Young people's memory practices on Instagram also highlight how personal and collective memory is overlapping within digital media representations. Emily is 26 and lives in London, but originally comes from the English Midlands. Her profile was particularly interesting because it portrayed two personal encounters with the British royal family. The first image was of her as a little girl, giving flowers to Queen Elizabeth II. The image was a scanned version of the printed original taken at some point in the 1990s, which she posted in 2016 on the Queen's 90th birthday.

"[…] but I was very little, like four or five. Yeah, I remember it. So it was like a nice memory. I remember going and I remember we didn't have flowers and my mum picked them from … they're

like daffodils from the garden [laughs].”[51]

Figure 8: Instagram post showing Queen Elizabeth II holding a bouquet of flowers

Posting this image was not only homage to the monarch but also created a connection between Emily and her across time. In addition, Emily used the hashtag #tbt in the description. This hashtag is commonly used to signify that an image has been taken in the past as opposed to recently. I will address this practice further in Chapter 6. In addition, using a hashtag makes the post more findable to users when they search for it. Emily’s usage of the captions was rather strategic and as the comment section shows, the image also sparked conversations with her friends about the experience.

The other significant post on Emily’s profile was a short video of the Royal Wedding between Prince Harry and Meghan Markle. Nearly two decades after meeting the Queen, she was again part of a public event involving the royal family. Emily spoke fondly of the day while watching the short clip with me. Particularly, the memory of waiting outside for the couple to arrive and the surrounding atmosphere stood out to her:

“Uhm, the video is of the Royal Wedding. So I went to Harry and Megan's wedding and he looks at us in that clip (both laugh). We got up at like 5am and went to the wedding and it was a really nice day and we had a couple of prosecco outside all day and snacks. And they're people from

[51] Interviewed in English on 06/11/2020.

North America and Canada who I still follow on Instagram. It was really fun."[52]

Figure 9: Screenshot of Instagram video showing Prince Harry and Meghan Markle passing in a carriage on their wedding day

Emily's participation in these two historical events illustrates how personal and collective memory inform each other. Emily's posts and statements reflect the excitement to be part of such collective events as well as the need to discuss personal participation with others. Furthermore, by posting about it on her profile she created a personal connection to the Royal Family.

Like TV and radio before, digital media enables real-time participation in historical events beyond physical presence. However, it adds the possibility of immediately reacting to events by commenting on what is happening. Furthermore, media formats like videos and images can be altered, redistributed and given new meanings. This leads to the circulation of satirical and mocking political commentary that is shared as political statements but also for amusement. Viktor's (20 y/o) post about the Trump inauguration in 2017 is such an example. The video mocked the former US President, by cutting several sentences of his speech together and repeating them at a fast pace. The camera then moves to Trump's youngest son Barron Trump as he looked sleepy and appeared to be bored by his father's speech.

[52] Interviewed in English on 06/11/2020.

Figure 10: Screenshot of Instagram video showing US President Donald Trump during his inauguration speech

Viktor, who is German, explained that he posted the video because he thought it was funny. In the captions of the video, he wrote: "Sorry … but this is so hilarious 😂 lol. #calmdown #donaldtrump #donaldtrumpisanidiot #raindrop #droptop." Although he did not create the video himself, Viktor was able to use it as commentary to this political event, adding mockery and his views with the hashtag #donaldtrumpisanidiot – showing he was not very fond of the former US-president.

Digital activism has gained a lot of attention from academics in recent decades and produced a broad range of angles on the issue (Postill 2018; L. Clark 2016; Paolo Gerbaudo 2017), particularly regarding its potential for tangible political change. However, for the purpose of this thesis, I will only shortly address its importance in regard to memory practices. The participation in activism, outside of institutionalised politics and traditional party engagement through social media, challenges representative democracy and places a focus on individual civil engagement (Barassi 2015). Several participants stated that using digital media to speak about societal issues and politics was more than an option and described it as a civic responsibility. The condemning of large social media accounts that would not use their influence and reach to support causes or to educate others on current affairs and social justice issues like racism, sexism, homophobia or the climate crisis were harshly criticised on several occasions. For example, Neele said:

"And then you have people, which is really awesome, who are really engaged and share petitions and ask to donate and so on. And if you think about that's really an amazing thing. And, uhm, yeah

there is a lot of power behind and when the right, the right intention is behind it and yeah. That's why … well, on the other hand you also have other people with 1.5 million followers who somehow post everyday about their, uhm, their little doggy and their lunch and what not."[53]

This highlights once more the strong moral underpinnings of social media. Young people know that influencers make an income from their following and posts and expect that they also use their accounts 'for good'. In this environment young people also take it up on themselves to be active in such discussions and be involved in different forms of digital activism, even if it is only through the sharing of posts.

"Otherwise I'd say that we, well I'm also sharing things from time to time. I am not having such a crazy reach, but I'm sharing from time to time especially when it comes to petitions or 'Hey, can you make a donation here? I'm usually checking for it regularly because I think even if people in my network who are following me have seen it hundred times already, you can always find two people who haven't seen it yet. Maybe you reach someone who will make a donation somehow. I don't know."[54]

Nevertheless, whilst knowing that political content might only reach friends that are having similar opinions to themselves, participants saw the sharing of such content as an important practice to inform others. Educating others was, therefore, an important motivation to post. The representation of forgotten or marginalised histories was an important political act for young participants, especially when their own belongings reflected such marginalisation. As mentioned in chapter 4, the murder of George Floyd was widely spread through social media in 2020. Although my participants were living on the other side of the Atlantic, the horrific footage made many feel like they had witnessed this event. Particularly participants who identified as Black themselves felt a significant impact that transcended into their everyday life and was also present in their social media activities. Regardless of their background, participants who were active on social media

[53] Interviewed on 16/06/2020. Translated from German: "Und dann hast du aber andere, was natürlich richtig geil ist, die sich voll dafür einsetzen und die ganzen Petitionen teilen und hier kannst du spenden und so und das ist eigentlich so ne geile Sache. Und, ähm, ja, da steht halt voll die Kraft dahinter und voll die Power und wenn dann das richtige, das richtige Motiv dahinter steht und ja, deswegen, ja, und natürlich hast du dann aber natürlich wieder so die anderen Leute mit den 1,5 Millionen Followern, die jeden Tag ihren kleinen, ääh, ihren kleinen Hund irgendwie posten und ihr Lunch und keine Ahnung was."

[54] Interviewed on 16/06/2020. Translated from German: "Aber ansonsten würde ich behaupten, dass wir recht, also ich teile eigentlich auch immer mal wieder. Ich hab jetzt nicht so die krasse Reichweite, aber ich teile halt schon auch immer mal wieder, gerade wenn es um Petitionen geht oder 'Hey, hier könnt ihr hinspenden oder da'. Da schaue ich eigentlich auch immer regelmäßig, weil ich mir denke, selbst wenn die Leute in meinem Umkreis, die mir folgen, das alle schon hundert Mal gesehen haben, du findest immer zwei Leute, die es noch nicht gesehen haben. Vielleicht erreichst du einen damit, der dann auch spendet, irgendwie, keine Ahnung."

shared images and videos about the murder and protests around the world in their stories. Many also posted a black image that would appear as a black square on their timeline often with the hashtags #blacklivesmatter, #blackouttuesday or #blm.

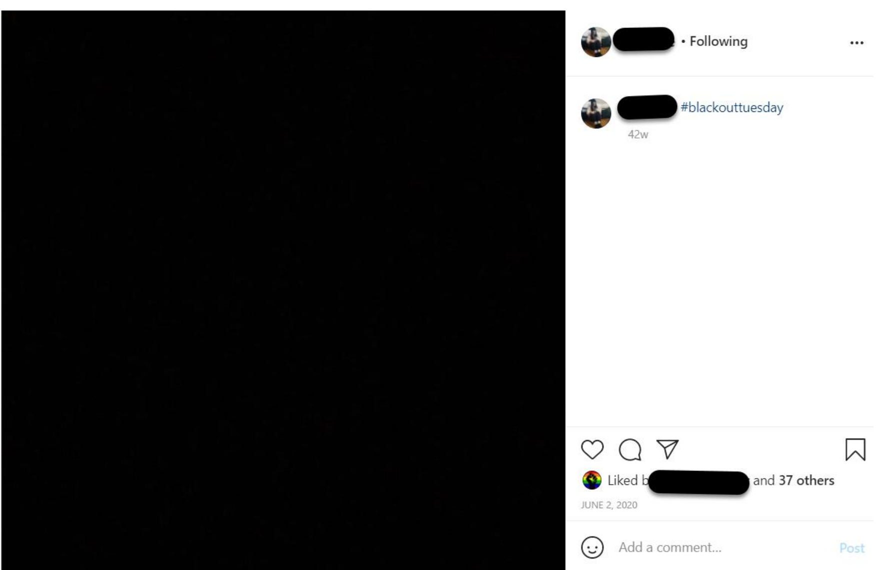

Figure 11: Instagram post of #blackouttuesday

Going back to Douglas's (2017) observation on witnessing as a digital memory practice, participants were witnessing and reflecting on what happened in their feeds and around the world through such activities. The initial idea to post these black squares came from African American activists who wanted to highlight how much content was contributed by Black people to the platform. By posting black squares they hoped to emphasise the important role Black creators played on Instagram and that their lives mattered. The practice was quickly adopted throughout the platform, but also criticised as an empty gesture equivalent to virtue signalling. Furthermore, the usage of #blacklivesmatter and #blm was criticised as it suppressed other content with the same hashtags that often related to protest organisations. However, the idea of collective action online is important as a form of memory, because many of these squares remained on participants' profiles at the time of writing and marking this collective event. Thus, posting about historical events on Instagram can also be a testament to collective experiences and a reaction to them. Ben, for example, frequently shared his African heritage on Instagram by posting historical details about pre-colonial Africa:

"Africa had a history before colonial times, before slave trade. You know what I mean? But we are no longer conscious of this history. Not only because Caucasians have somehow changed everything or prohibited it or burnt it, but because … a lot of people just migrated. A lot of people

are no longer on the land on which they were raised so to speak."[55]

Lydia, who was also of African descent, shared an image of the rather unknown Black German poet May Ayim next to the Black US-American activist Assata Shakur, adding in the caption: "Their presence, their work, their gifts, their strength, their courage will never be forgotten if we remember them and manifest their teachings into our lives." With this post, Lydia linked the meaning of the two women to herself and passed information about them to her followers.

Creating these historical and political posts requires young people to research and engage with information. Furthermore, it is usually a display of the personal relationship to these events. This type of Instagram post ephasises how young people remember and how their memories influence collective memory. These practices involve witnessing, but also storytelling and placing the self in a wider collective continuum.

Conclusion

Social media plays a central role in young people's memory practices, but the configurations and socio-economic underpinnings of platforms also influence how memory is made. The memory assemblage emerging throughout this chapter foregrounds the co-production of memory between human and non-human actors. The wider social media landscape and hidden issues of internet governance, thus, have a hand in how memory practices are shaped and what happens to memories in the future. The examples given in relation to media norms and algorithms show how the infrastructure of social media hinders certain personal expressions. The publicness of social media restrains young people in what and how they create memory, as imagined audiences are always taken into account in the creation of posts and the sharing of memories. Because of the polarised view on social media, personal memories created with and on digital media are perceived as less valuable and temporary. Nevertheless, as the chapter has demonstrated the expressive potential for memory making with social media is ample and embodies emotional attention similar to physical memory objects. Memory practices on social media involve complex levels of intimacy that are

[55] Interviewed on 14/07/2020. Translated from German: "Afrika hatte ne Geschichte vor der Kolonialzeit, vor dem Sklavenhandel, weißt du, was ich meine? Aber diese ganze Geschichte is uns nicht mehr so bewusst. Nicht nur weil der Kaukasier irgendwie alles verändert hat oder alles irgendwie unterbunden und verbrannt hat, sondern, weil … einfach ganz viele Menschen gewandert sind. Ganz viele Menschen sind nicht mehr auf dem Land, auf dem sie, weißt du, groß geworden sind quasi."

continuously negotiated.

Social media has not fulfilled the optimistic expectations of becoming an all-encompassing democratising force. Gatekeeping and the enforcement of platform rules and norms hinder young people's visibility on the platform and their self-expression. The power imbalances between individuals using the platform and corporate actors looking to make a profit from their personal data are stark. Hence, digital memory practices need to be analysed within this context to uncover how these disparities affect practices. Despite the hurdles social media places on young people to be seen online, it still enables them to directly communicate their memories to a wider audience and express themselves through it. In addition, marginalised histories can be told and a personal relationship is built with them, which would not have been possible through traditional media to the same extent.

Chapter 6: Telling a story about me – performing the self on social media

Identity and memory are two central concepts whose definition often remains vague. This vagueness also leads to their frequent interchangeable usage despite the different functions these concepts fulfil (Berliner 2005b). I argue that memory as a representation of the past could rather be understood as a component of identity construction. The narration of one's past is a crucial element to construct the cohesiveness of the self (Kontopodis and Matera 2010) or a group.

Today, identities are partly formed through online interactions. However, the influence of the digital is not one-dimensionally bound to online spaces and goes beyond the construction of an online persona. What is seen, learned and experienced online also makes its way into how people express themselves offline (Davis 2014). My participants started using social media when they were between the ages of 13-16 and their social media accounts have partly become archives of a younger self. These personal archives function as a way to reminisce and walk down memory lane, but are also used to meticulous craft representations of their identity. Creating a cohesive identity online is an important basis for meaningful online social interactions. While pseudonyms and anonymity used to be key in early internet forums (Donath 1998), presenting one's 'true' or authentic self is encouraged and moving swiftly to become the norm. Having 'one identity', as proclaimed by Mark Zuckerberg the CEO of Meta in 2010 (van Dijck 2013), also means that digital infrastructures are increasingly tailored towards verifying people's identity and nudging them into being 'authentic'. Therefore, young people aim to represent a coherent self that is strongly based on the values, characteristics and personality they claim offline.

In this chapter, I will demonstrate how memory is used to support and create narrative identities. Using Facebook and Instagram as examples, it will be addressed how accounts become a way to represent the self and offer continuity over time. In addition, the shift of memory practices in connection to certain platforms will be highlighted. Following this, I will discuss how identity and memory are linked on social media and address connected issues of authenticity that become part of young people's identity performances. Moreover, issues around the memory practice of forgetting will be elaborated, as young people delete personal images to create a cohesive image

that represents the present self. Lastly, I will explain how using identity as a lens can aid in distinguishing memory from mere recording using digital media.

Me, myself and I – Identity performances as a divisive practice

Digital media provide the possibility to speak about the self in new ways. Not only can images, texts, videos and audio materials quickly be produced but they are also distributed to a potentially large audience that, in theory, can be situated around the world. This possibility to communicate ideas, opinions or just talk about personal experiences is one of the characteristics digital media is mainly praised for. Libertarian ideals of freedom and self-expression are deeply embedded in digital media's infrastructures (Coleman 2013). Particularly during the early stages of the internet, these infrastructures promised the advancement of democratic participation and redistribution of political power to the individual (Shirky 2008). Although the internet has not produced the promised level of democratisation. The idea of individual engagement, discussion and self-expression are persisting.

As illustrated in chapter 4, young people's engagement with digital media is becoming a default requirement for social interactions, education and job prospects. Developing an online self over several platforms and services is a crucial requisite. When physically meeting another person for the first time, people tend to gather information about their counterparts through their physical appearance and behaviour. Complex signals like body language, vocal intonation or social markers like clothing need to be translated to facilitate digital encounters (Donath 1998). Many profiles also provide the option to add external links to other social media accounts or websites that can give even more information about a person. Moreover, as mentioned in Chapter 5, platforms are encouraging people to tell more about themselves through prompts like "say something about yourself" or "what's happening?". Accordingly, performing one's identity online is expected and demanded by design. Social media platforms constantly probe people to provide information about themselves – from their real names to profile pictures and biographical descriptions. While the platforms' interest in personal information might meet people's desires to speak about themselves and build relationships with others, the accumulation of this data also serves corporate profits.

Showing one's identity online is predicated on the way platforms function and is important to young people. Similarly to concerns over youth's mental health and behaviour, young people are

often depicted as a generation of narcissists in the media. Equalising online self-representation to narcissism and, thus, a form of personality disorder reemphasises the medicalisation of digital media effects as discussed in Chapter 4. Nevertheless, the performativity of such self-representations is essential to social life and communication between people. Erving Goffman's (1956) influential work "The Presentation of Self in Everyday Life" shaped the concept of identity performance, which assumes that everyone whether consciously or unconsciously adjusts their behaviour when interacting with others. According to Goffman, social interactions are always performed with an imagined audience in mind. Like an actor on stage every individual plays multiple roles in their lives may it be a mother at home, a manager at work or a friend when among peers. Who we portray to be, thus, depends on which group of people we are interacting with. In his later work (1986, 1963), Goffman also speaks of people's need to control social information about themselves to avoid being socially stigmatised (61). Young people are very aware of the constructiveness of their online performances and the personas they create. The context of digital media is not creating a 'fake' self, but requires certain performative practices to facilitate social interaction. Participants spend a lot of time crafting their digital selves on social media and they were highly aware that social media could "give an idea of a person" and could give them feelings of being related to others. However, getting an idea of a person also meant that young people were aware that they and others are performing their identities not fully reflecting who they were offline.

The selfie is often referred to as a symbol of growing narcissism and self-absorption among young people. Posting selfies can expose a person to scrutiny and judgements. Indeed, participants also criticised the performativity of presenting the self online and were often annoyed by what German informants called *Selbstdarstellung* or self-portrayal, which has a negative connotation. Publicly displaying the self was often frowned upon and ideologically closely linked to social media in general and Instagram in particular. Who is allowed to express their identities without scrutiny depends on their belonging. As described in chapter 5 selfies were usually sparingly used to avoid looking too self-centred and tried to diversify their feeds by posting something 'more interesting'. Nevertheless, feelings towards the selfie could shift sometimes within the same interview. In general, young people agreed that selfies could be something nice and enjoyable, but were repetitive and egocentric in nature. Neele said she avoided posting selfies when describing the process in which she created and assembled images for her profile: "Not that someone sees 'oh

well, five pictures in a row are only selfies' for example and so on."[56] This concern was primarily voiced by female participants as public identity narration is coded as 'excessive' mainly for certain bodies along the lines of gender, race and class (Dobson et al. 2018; Handyside and Ringrose 2017). Indeed, male participants often 'pitied' girls and women for the pressure they experience for portraying themselves and their bodies online – a scrutiny they said they did not face. During our conversation, Ben (26 y/o) spoke of the pressures people experience through social media.

Jennifer Krueckeberg: "And did you experience this yourself as well? That you felt this pressure or something similar?[57]"

Ben: "No. Somehow because … the thing is, you got it easy as a man. I have to say clearly that, as a man you got it honestly easier because … it's, the pressure on women is just bigger. All the things you [women] are supposed to, uhm, from early childhood people tell you, I don't know, you should get children, you're supposed to do this, you're supposed to do that. You know what I mean? It's … well social media can't become more sexist than they already are, you know. But that's the people who are running them and uhm, those that give you the content, you know? It's also just a mirror of society."

Selfies were a large part of images on young people's Instagram accounts. My observations did not indicate that male participants would be less prone to post selfies. But the differences between how these identity performances are judged indicate how personal belonging and societal norms are affecting the selective process of online identity performances. The moralisation of selfies, thus, did not affect all participants and their practices equally. This example further shows that female participants had to be particularly considerate of what and how they post.

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[56] Interviewed on 16/06/2020. Translated from German: "Nicht dass man irgendwie sieht 'ach, fünf Bilder hintereinander nur Selfies zum Beispiel oder so."

[57] Interviewed on 14/07/2020. Translated from German:
Jennifer Krueckeberg: "Und war das bei dir auch mal selber so? Dass du da nen Druck gespürt hast oder so was?"
Ben: "Nein. Eigentlich weil ganz … das Ding is, als Mann hat man's leichter. Muss ich ganz klar sagen, als Mann hat man's echt leichter, weil … der Druck auf Frauen ist einfach groß. Was sollt ihr denn alles schon von, äh, Kind auf sagt man, ihr sollt, keine Ahnung, Kinder kriegen, ihr sollt das machen, ihr sollt das machen, also weißt du was ich meine? Das is … also sexistischer kann, können soziale Medien gar nicht mehr werden, als sie es schon sind, so auf den. Aber das liegt an den Menschen, die sie betreiben und, äh, die dir Content geben, weißt du? Das is auch nur ein Spiegel der Gesellschaft."

In her article "You have one identity" (2013) José Van Dijck picks up on online identity performances and asks how platform interfaces shape personal and professional personas. Using the examples of LinkedIn and Facebook, van Dijck observes that Facebook's feature change from a chronological timeline to an algorithmically sorted feed incentivised people to switch their self-representation strategies to gain more visibility. She also noted that ordinary people have become more skilled in using their Facebook profiles for personal branding and self-promotion (206). In the almost ten years since van Dijck's article was published, the elements of personal branding and self-promotion are ever-present.

None of my participants is what could be called an influencer. Few had more than a couple of hundred followers and only two considered their social media content as a source of income while the rest did not intend to do so in the future. Yet, as mentioned in Chapter 5 their private and professional aspirations overlapped. For example, Casper (19 y/o) and Femi (26 y/o) both used Instagram to launch their careers in the creative industries. Femi was interested in fashion and secured modelling gigs through his Instagram account. He posts daily on his stories, mainly showing himself on photo shoots, with expensive cars or clothing. His stories usually were accompanied by music which enhanced the feeling and atmosphere he intended to convey through them. Similarly, Casper was using his Instagram account to share his music and find clients that would buy his compositions. He described in detail how the image he portrayed was a key element in building connections with other musicians outside of Germany. Casper identified his online persona as the main reason for being able to attract clients and making a living producing music for others, as he failed to attract people through his website. Apart from a few exceptions, all of Casper's posts were short video clips showing him making music, either sitting in front of a mixer or him playing the piano. These videos were not created spontaneously or randomly, but were carefully arranged by Casper with much attention to detail. "The colour, the cloths, everything is chosen", he commented. Casper aimed at creating an image of himself as a "fun dude just vibing" and many people commented fire emojis in his comments or stated that they enjoyed his "energy". The accounts of Femi and Casper simultaneously functioned as private accounts used to communicate with friends and family as well as a representation of their professional selves. Other participants who unlike Femi and Casper were not necessarily interested in finding income through Instagram still used it in a way to display interests as part of their identity. For example, Emily whose account was private and only visible to friends still described herself as a designer in her bio.

As van Dijck elaborates platform features have a significant impact on the growing overlap of private and professional self. Moreover, it is also the media ideologies of social media as a place to perform the self that supports the merging of these two identities. Speaking about interests, skills and abilities is firmly established in the ways young people create their social media profiles. Displaying interests like music, fashion, travelling, art or politics is also used to communicate who a person is and to find people with similar interests. Digital media make identity performances more visible to young people and evoke a more conscious reflection on how to portray themselves.

The gaze of others

The usage of social media and digital devices for memory making creates a semi-public setting in which memories are made and displayed. I am speaking of a semi-public setting because the degree of actual publicness fluctuates with the visibility an individual obtains. As mentioned in Chapter 5, visibility to other users can be greatly diminished through algorithmic filtering, the growing amount of content on platforms as well as the prioritisation of adverts and accounts with a large following. However, not all young people are comfortable with performing the self-online. Depending on individual preferences, online visibility is desired either to be increased or decreased. Regardless of the actual reach and visibility achieved, the gaze of others is a crucial factor in how and why memories are being created online. This imaginary gaze is also a main factor in young people's decision-making on which pictures should be posted and which should rather remain on their smartphones and computers. How to deal with the gaze is continuously negotiated as feelings towards being seen online change over time. Several participants stated that their earlier posts represented a time of playfulness for them, as they posted more intuitively. Over time, this exploration and experimentation shifted to an awareness of other people looking at their social media practices. Thus, most started to be more careful and calculating in what they posted out of concern that their content might create issues in the future. Some, like Anouké, were worried that their posts could make them a target of online bullying.

Because of the potential issues arising from social media content, young people tended to be very aware of who was following them. Regardless of whether their accounts were private or public, knowing their audience was crucial to get desired positive responses for their posts, but also to protect themselves from negative comments. Social media is not only used to make new

connections with others, but primarily serves to maintain social networks made offline. These pre-existing networks are usually extended through people they already know and usually align with people they went to school or university with. Sophia, for example, felt pressured into accepting friends of her friends as followers to her account who she did not know:

"But I accepted extremely many people anyway that requested to follow me, where I didn't know who they were. Well, I then somehow saw that, okay, he and him are friends, well, but I didn't have a clue who that was. But it will be someone somehow reasonable and he can follow me – like that.[58]"

While the gaze of others can be intimidating to some, others spoke of finding recognition and validation online as a motivation to post images online. Luca has stated that he also posted to get emotional support from others and have attention:

"It's nothing that necessarily has to be shared, but it's something that partly supports my self-esteem somehow. Well, and I am making use of it. Don't know, if I have a new haircut, a new hair colour, new glasses, new car and whatnot, I am self-celebrating a bit by making it public."[59]

Although the worries about negative comments were present the majority of reactions and comments my participants received were positive. Through my analysis of the images, female participants received mainly comments like 'beautiful' or 'schön' in German, which were accompanied by heart emojis in various colours and forms. Male participants also received hearts but mainly from female followers and instead the flame emoji appeared more often. In addition, the emphasis was less on their beauty, but on their coolness. These gendered comments match with female participants expressing to have more pressure about the way they looked online. Furthermore, wanting to be on the safe side feeds into the positivity norm on social media and is reproduced by what young people posted and received positive comments for. Wanting to have others react positively to their posts hindered young people's willingness to share challenging

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[58] Interviewed on 07/04/2020. Translated from German: "Aber ich hab extrem viele Leute trotzdem angenommen, die mich auch angefragt haben, wo ich nicht wusste, wer die sind. Also, wo ich dann irgendwie gesehen hab, okay, der und der ist mit dem befreundet, also, aber ich hab keine Ahnung, wer das ist. Aber wird dann ja schon irgendwer Vernünftiges sein, der mir dann auch folgen kann, so."

[59] Interviewed on 22/10/2020. Translated from German: "Das ist eigentlich nichts was man unbedingt teilen müsste, aber was halt irgendwie nen Selbstwert teilweise schon aufbaut. Also das nutze ich dann halt auch. Keine Ahnung, wenn ich irgendwie nen neuen Haarschnitt habe, ne neue Haarfarbe, ne neue Brille, neues Auto, was weiß ich nicht das wird dann schon auch mal so'n bisschen selbstzelebriert, indem man das dann halt öffentlich stellt."

moments or memories, where reactions are more difficult to be anticipated. This highlights that young people were very aware of their identity performances and for Sophia, this also evoked the question “For whom am I actually doing this?”. She also spoke of an incident where she had recently broken up with her boyfriend and intentionally posted images of her going out with her friends to show how well she was doing. However, at that point, she felt quite miserable and bemoaned the breakup but wanted to show her ex-boyfriend and others that she was doing well.

While Sophia intended to communicate indirectly to someone she was no longer talking to, protecting the self from the gaze of certain people has become increasingly important for young people. The wish to protect the self from judgement and unwanted attention has also led to the development of new features that can offer different levels of publicness to users. Instagram, for example, has the option to hide content from certain people without the need to unfollow or block them. Blocking or unfollowing can be difficult with people encountered offline and might lead to offence. Nevertheless, many youths have reasons why family members, peers or colleagues should not have full insight into their online selves. This is handy for some as they do not necessarily want to end a relationship or offend a person, but control what of their content is shown to them. In addition, users can create a group of close friends. When this group is chosen stories only appear to the group excluding other followers. The stories then appear with a green circle around them. The affordances of the platform also influence how ‘protected’ the performance of the self feels to individuals.

When still in her early twenties, Louise (27) undertook training to become a nurse. At the time, one of the patients she took care of messaged her privately on Facebook. Although she thought the tone of the message was friendly, as the patient complimented her for being so nice, it gave Louise a strange feeling. When I asked her if she is thinking about who can see her online activities, Louise also said that when she had eventually qualified as a nurse and started working full-time she realised that some of the doctors she was working with, would watch her activities on Instagram:

“And somehow, well uncomfortable is maybe the wrong word, but it is a bit awkward. Uhm, well I … there actually was a doctor who watched one of my stories in the end and I thought somehow I don’t want this. Well, because I just don’t like him and well, maybe he is not thinking anything

of it, but it's really not necessary.[60]"

Jennifer Krueckeberg: "And did he follow you then or did he just watch the story?"

Louise: "He did follow me in the end, but he himself didn't have any posts. You see. And then you don't know if they are gossiping about any of it at work. I really couldn't be bothered by that. But I also didn't want to set it [the account] to private either and you can unfollow the person for yourself. You simply say he doesn't follow me."

How participants handled their privacy online was mixed. As mentioned in the previous chapter, on Instagram 6 participants had a private account and 9 preferred to have it public especially to promote their art, business or events they organised. For those who used Instagram to support their living, considerations of what and when to post also influenced their income and future career. Thus, achieving a balance between being approachable and keeping certain information private was carefully calculated. Femi summarised his strategy by saying: "You should show people what they should see and not what they want to see."[61]

However, there are also other strategies for a more carefree personal expression. In his article "Being Real on Fake Instagram" Scott Ross (2019) described how young people and most notably young women, create second Instagram accounts called Finsta (Fake Instagram) to be free of the pressures that posting online can create. Usually, only a few friends would be following these fake accounts to goof around and have fun. Finsta's were also known to my participants although apart from Ben, nobody seemed to have a second account currently in use. Emily, however, spoke of her younger sister who had several accounts in use for different purposes. One would be a public personal account, the second to showcase her course work as a makeup artist, another she kept

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[60] Interviewed on 27/05/2020. Translated from German:
Louise: "Und so. Und irgendwie, also unangenehm ist vielleicht das falsche Wort, aber so'n bisschen komisch ist das schon. Ähm, also ich … es gab tatsächlich nen Arzt, der hat sich dann meine Story angeguckt und dann dachte ich so, irgendwie will ich das nicht. Also einfach, ich mag den nicht und auch, weiß ich nicht, vielleicht denkt der sich auch überhaupt nichts dabei, aber muss nicht sein."
Jennifer Krueckeberg: "Also, ist der dir denn gefolgt oder hat der einfach so die Story angeguckt?"
Louise: "Er ist mir dann auch gefolgt so, aber er hatte selbst auch keine Beiträge. So. Und dann weiß man ja nicht, ob die dann auf der Arbeit dann über irgendwas herziehen. Und darauf hatte ich dann auch echt keinen Bock. Aber privat wollte ich es dann auch nicht stellen und man kann die Person für sich 'entfolgen'. Dann sagst du einfach so, der folgt mir nicht."
[61] Interviewed on 08/09/2020. Translated from Geman: "Man sollte den Leuten zeigen, was sie sehen sollen und nicht was sie sehen wollen."

from school showing her artwork and the last would be only in use to communicate with a small number of her friends:

"And then she has one that's very private and has like five people going there. She might as well just have used it as a group chat. I don't know why she created an Instagram account for that."[62]

Hence, to be able to express the different aspects of a person that an Instagram account would not allow to portray, some young people divert to keep purpose-specific accounts that help negotiate different intimacy and privacy levels. In addition, having more than one account presents for some, the opportunity to be 'more themselves'. Moreover, the harsh scrutiny that can be experienced is mitigated through these less serious accounts.

When speaking about who might be watching their activities, young people mainly had other people in mind. The gaze of others, therefore, fundamentally influences the forms memory can take on social media. Like the formation of certain memory genres, it suppresses the sharing of memories that are deemed socially non-conform or the anticipation of criticism or attacks prevents the sharing of memories because they could result in vulnerability. However, the gaze of others is not limited to human actors, but also affects the data collection running in the background of social media platforms. Concerns over data have been mentioned several times by participants and as previously elaborated, young people are not clueless about the business model of technology companies. Nevertheless, protecting the self from the gaze of others mostly entailed human-human relationships. Young people generally commented that they had no influence on what happened to their data and did not feel like they could do something about the ways their data was used. While the impression remained that information could be withheld from other people, most had resigned that their usage of social media eventually meant giving up control over what happened to their data in the long run.

The making of an authentic self

Digital media is frequently accused of being 'fake' or not representing real life. This goes back to the distinction of reality versus cyberspace, making online activities part of an imagined world

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[62] Interviewed on 06/11/2020 in English.

that is oftentimes framed as a form of escapism and disconnection from the world. The idea that what happens online is somehow disingenuous also characterises how young people see their identity online. The ability to manipulate quickly images and videos is contributing to this dynamic, but also the feeling that much of the information found online is fabricated. Particularly, social media users have many options to adjust and edit images or videos with filters that adjust the colours of an image. Moreover, the introduction of augmented reality elements strengthens the impression of an unreal environment. Therefore, demonstrating personal authenticity is a way to avoid slender for being 'fake'. Using personal memory is an important part of constructing such authenticity.

Human behaviourists Lim et. al (2015) see online authenticity as a way of self-expression. They acknowledge that the importance of online selves is growing, yet the audience to which people play is more diverse and constituted by overlapping groups of peers, professional relationships and social groups. In addition, they point out that online selves are often standing in contrast to the offline self (ibis:142). Being authentic can also have repercussions when personal expressions do not fit with social expectations (Lim et al. 2015). While Lim et. al's elaborations show the potential conflicts emerging from portraying authenticity, their analysis expresses the idea of a true self that can be expressed online, whereas otherwise socially suppressed offline. Ideas of a 'true' self can be limiting, whether they are subscribed to the online or the offline as they underplay the role of performativity and the cultural specificity of the concept. In contrast, anthropological perspectives such as Lindholm (2008) and Fillitiz & Saris (2013) stress the constructiveness of authenticity. Lindholm (2008) points out how self-expression as a form of authenticity is deeply rooted in Western culture and far from universal. The focus on authenticity and the wish to achieve it is, according to Fillitz & Saris (2013), linked to modern consumer culture, which is not only concerned with the authenticity of goods and products, but also with experiences and ways of being in the world. Wishing to be authentic is also connected to the relationship between an inner state and external expression (Fillitz and Saris 2013): "In our times, there is a proliferation of external expression and activities, for what should stand for true, real, original inner states." (ibis: 15) Therefore, inauthenticity is avoided because it challenges the integrity of the self with a potential withdrawal of trust. The anthropological stance aligns more with Goffman's ideas of a performed self, where different identity performances do not equal a disingenuous or less sincere self-representation.

While the idea that a true self exists is questionable it is evident that German and British participants believed in its existence and that the need to be authentic was also communicated to them by their personal networks and digital media. Encounters with perceived differences between an offline and digital self were highlighted by Neele's (26 y/o) experiences, who were frequently told that her online image and how she comes across offline were very different.

"No, exactly. And then so many people say: 'Wow crazy, if I'd seen your Instagram first, I would have thought you're a completely different person and would have entered our first conversation with a completely different impression.' And that's so interesting somehow. How strongly you …well, I can imagine, when you see this stagedness and the hair, I don't know, is styled and you wear makeup and so on. And suddenly you see such a slob [like me] (laughs)."[63]

Fabian (22 y/o), who himself did not use Instagram and was occasionally active on Facebook, gained insight into the Instagram profile of a close friend through a mutual friend. While not judging his friend, Fabian was surprised and even baffled. In his view, his friend came across as extremely different from how he knew him offline. The ideological conflict between the offline and online self lies also within the assumption that people offline have one identity that is contained through their physical constraints, equalling 'one body, one identity' (Donath 1998). So the online self should mirror the offline one. I argue that in the context of social media, preventing challenges to the integrity of the self is connected to a heightened need to establish trustworthiness. The dichotomy between the online being 'fake' and the offline being real is, therefore, extended to how people portray themselves here.

The positivity bias also leads to questioning the genuineness of others. Authenticity is linked to ideas of personal expression and what makes digital self-representation authentic is highly subjective. Nevertheless, whether an identity performance is successfully authentic mainly depends on the judgement of others (Nguyen and Barbour 2017). Failure to do so can be socially reprimanded. For example, Anouké (23 y/o) described her dissonance about a friend who would speak to her personally about having a tough time while simultaneously posting pictures on Instagram of herself partying and having fun. This difference made her question, whether her

[63] Interviewed on 16/06/2020. Translated from German: "Nee, genau und eben dann sagen halt voll viele Leute 'Boah, krass, also, wenn ich zuerst dein Instagram gesehen hätte, hätte ich dich für ne ganz andere Person gehalten und wäre mit nem ganz anderen Eindruck in unser erstes Gespräch gegangen' und das ist so interessant irgendwie. Wie stark du dann doch … also ich kann's mir schon auch vorstellen wenn, ne, wenn du halt so dieses in Szene Gesetzte und Haare keine Ahnung gemacht und geschminkt und so und dann auf einmal hast du halt so die Gammel-Liese hier [beide lachen]."

friend was genuinely experiencing distress and if so why she would portray herself in such a 'fake' manner online:

"Which I think can be quite a shame. Because you know, just again you're just removing, you know, as I said, you're not getting the true, real thing, because a picture is also taken, just a few seconds of your life. So, that few seconds can either be really, really connected to what is being captured, which is a really, really lovely moment (inaudible). Or it can be captured, but you had a shit time before and after. So that's the thing with we can't really distinguish those two. Unless, you post it because it has clearly a meaning, which I try to do." (Anouké 23 y/o)[64]

As Anouké's statement shows, failing to appear authentic can have repercussions for personal relationships and is subject to moralisation. Like Anouké, many participants tried actively to prevent looking 'fake'. Digital affordances are limited in mediating other people's emotions and intentions, particularly when a platform is dominated by images and videos like Instagram. Through their own practices, participants were very aware that the majority of images online are edited or modified in some way. Hence, the desire to be authentic is also expressed through visual materials. The importance of having images as authentic as possible was also highlighted during the digital storytelling workshop in East London.

As the pupils worked on the films portraying a personal memory they had chosen, they paid a lot of attention to making the visuals realistic. As mentioned in Chapter 5, many students in the workshop chose a holiday destination for their short videos. The pupils paid great attention to including details of their holiday location like the name of the hotel and finding the exact image through a Google search. Using the internet allows greater access to a range of images and pre-made materials that can support the construction of authenticity. In addition, it also aids in filling gaps in one's memory. For example, looking up the place they visited on Google Maps reminded children of the way from the airport to their hotels. Damyan spoke to me while zooming in on the location of the hotel he had stayed in with his football team when they went to a match in the Bulgarian town his family was from. While showing me the location, he started to speak about his experiences, which he later used to improve the script of his film. Another boy in the workshop, Jameel, even constructed most of his story about travelling to Mecca in Saudi Arabia, with images he found on the internet. Jameel had brought personal pictures of the trip to the class but did not end up using them. About a quarter of his short 1-minute film was about the journey to Mecca, the

[64] Interviewed on 21/02/2020 in English.

airports through which he and his family passed to change flights and which airlines they used. Moreover, Jameel also spoke about the mosques they had visited, including al-Masjid al-Haram, which contains the Kaaba, one of the most important places of worship in Islam, for which he also used images he found online, instead of his own. Jameel choose the pictures he found online because he thought they looked better than the ones he had taken.

Figure 12: Screenshot from student films showing Lufthansa aircrafts

Farah and Zainab were preparing to film scenes for Zainab's story that was about her father overcoming a serious illness. The two girls were more invested in replaying the scenes of their scripts and Zainab, brought quite a few family pictures she digitalised by taking a picture with her tablet. One of the scenes included Zainab being on the phone when receiving the news of her father's illness. Zainab did not have her phone with her in class on that day and asked me if she could ask one of the other children to use their phones instead for the shot. Because I was rather insecure about the tight school rules surrounding smartphones in class, I suggested to her to just pretend to have a phone in her hand, about which she was not happy at all. Her friend Farah offered her mobile phone instead, a burner phone with analogue keys. I supported that idea and told Zainab that this would be a good idea because the incident with her father was a few years back so using an older phone would not be so obvious. Not being happy with my suggestion again Zainab responded: "I was in year 6 back then, now I am in year 9, I never used such a phone. I am not a grandma." I had to surrender to Zainab's wit and admit that I was the only grandma in the room. Digital media provides young people with realistic images that can be appropriated to their creative processes. In the example from the workshop, creating an authentic experience of the places they

visited and actions they did was more important than providing personal images, which were sometimes less professional looking or did not portray what they wanted to talk about in their stories.

In contrast to this, creating a cohesive and authentic self through personal images is important on social media as it weaves a story about one's identity. As mentioned by Fillitz and Saris (2013) authenticity is linked to consumerism. Selling products and services make the question of authenticity even more important as professional and personal self-overlap online and self-branding becomes a crucial activity. Casper, for example, described his position in the videos that he posted of him 'vibing'. Just vibing gives the impression, that his performance is effortless, although a lot of work was behind each clip. Giving this authentic and laid-back impression garnered support from others.

"This one was … yeah. This one really worked well. Like you can check the comments. They were going crazy. Because, I don't know, you see the pianos in the background. You see me vibing. You see me with dem glasses. My hair was just out. That shirt. Everything was just perfectly in that video. And I sold that a lot. I made a lot of money just from that one video. And there were just like some people were, just 'Is it on Spotify' and so on. Like they were asking me, where can I support you? Like you're dope."[65]

Casper was aware that whether people would be interested in his music or not and selling his music, depended on creating an authentic image of who he was. Looking authentic is part of engaging others with one's account and portrayed personality. Coming off as fake can be detrimental to one's popularity, but on an extreme level can also lead to attacks from others. Furthermore, authenticity validates self-expression on digital media and gives value to it. As speaking about the self can be reprimanded and deemed self-centred, portraying authentic self-expression lifts one from doubts of vanity or ulterior motives e.g. trying to make money. In this context, showing younger versions of the self can also support the creation of authenticity as the story about the self can be woven even further and increases relatability.

Remembering younger selves and kinship

Social media accounts are telling a story about the person who owns them. As discussed in chapter

[65] Interviewed on 02/09/2020 in English.

1, narrative identity is an integral part of how we remember and personal memory is often conveyed through it. This approach sees narration as central to how the self and what we understand as our life is constructed (Brockmeier and Carbaugh 2001). The creation of a life story is particularly important to the contemporary social media setting where self-stories are encouraged (Kidd 2009, p. 170) and take on specific forms to be disseminated. Memories of younger selves and kinship play a central role in forming these stories. On Instagram and other platforms visual narratives in the form of videos and images are significant parts of these self-stories. Collecting images, connections and posts over the years creates unique personal archives that are spread over several social media platforms. As established in the previous chapter, the popularity of social media platforms waxes and wanes. Older participants aged between 19-27 started their social media lives with Facebook, but used it less frequently or stopped using it altogether when more ads were displayed in their feeds and peers left the platforms. The turn of Facebook from an actively used platform to an archive provides a snapshot of participants' younger selves, holding mainly memories of their school days and early university or work years. Anouké (y/o 23) commented that she liked using the archive on Instagram because it was easy for her to look back: "You know photos are nice for when you get older as well. You can just like, you know, have a look at your past life and your mistakes, not really mistakes, but how you look, how you have changed and stuff. Cause it's part of being a human being."[66]

Apart from these archival memories that are organically created over time, young people specifically choose pictures of their younger years to add to their self-stories. Often pictures are chosen to point out a personal characteristic they believe still applies to them, which creates a continuity between today's self and a younger version on social media that lets other people participate in reflections about one's identity and personality. Furthermore, choosing childhood pictures reminds the individuals of how they and the 'world' have changed. Simultaneously, these recollections are recontextualised to the social media environment where a response from others is expected or consciously initiated by using hashtags.

For instance, Viktor (20 y/o) posted an image of himself when he was around four to five years old. In the picture, he was holding a phone to his ear and smirking into the camera. Using the captions of the post Viktor wrote: "Hahaha business as always 😌 😂 👅 👍 #me #throwback.",

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[66] Interviewed on 21/02/2020 in English.

his words imply a link between his current and younger self. As a musician, Viktor used his profile to post about his gigs, him practising the drums and talking to other musicians. Showing a business-like and hardworking demeanour through his childhood picture suited the rest of the narrative he told about himself as a professional artist. While it is unclear why Viktor used the phone in the childhood picture, the facial expression and body language in the photo could be reconstructed to suit Viktor's narrative. As Jenny Kidd (2009) notes narrative memories, like Viktor's post, are distinct from everyday memories that document daily activities because they intentionally utilise emotions to enhance their memorability.

Figure 13: Instagram post showing a childhood picture of Viktor

Furthermore, Viktor used the hashtags #me and #throwback. The #throwback is part of a series of synonymously used hashtags like #tbt or #throwbackthursday that are used to signal that a picture has been taken a while ago and often express a nostalgic value. These hashtags are popular and can be categorised as a specific type of memory genre on social media. Because of their popularity, these hashtags make pictures of the past more findable. Moreover, they motivate others to participate in the same practice of sharing pictures of a past self. 'Throwback' pictures are posted only occasionally or shared via stories. I propose that this careful and intentional usage is related to not wanting to swamp others with the same content and keeping posts varied.

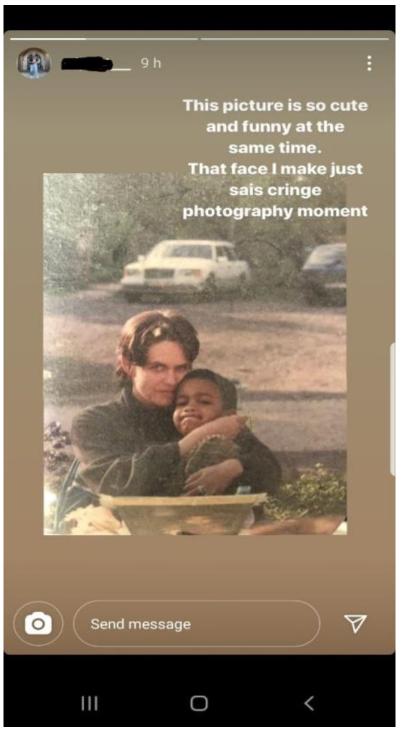

Figure 14: Instagram story showing childhood picture of Didier

Didier's (20 y/o) picture of him as a child with his mother is another example of how childhood pictures are used to create continuity through narrative. Childhood pictures with parents were mostly posted shortly after participants had visited their parents and had found these pictures in old family albums or other personal photo archives and felt inspired to post them to their profiles. Didier posted a picture of him as a child after spending some time at his mother's place during Covid 19. He commented: "This picture is so cute and funny at the same time. That face I make just says cringe photography moment." 'Cringe' expresses an extreme level of discomfort. The caption shares Didier's thoughts and emotions about seeing himself as a child. Showing himself as a child also helps to establish a sense of authenticity and relatability.

Childhood pictures can also be used to show appreciation for family members and portray kinship ties. Lydia posted an image of herself with her mother and her twin sister on it.

Figure 15: Instagram post of participant with sister and mother

The caption read: “when mom was my age. 🏆 🔁” Lydia created a direct connection to her current self and her younger self as a toddler through the image. Furthermore, comparing herself to her mother at the same age she also established a direct connection between her own life and her mother’s. The trophy emoji she used also implicated pride and appreciation for her mother. Not only was this post creating kinship, but also related the self to the fact that life was very different for her mother at the same age. The other emoji representing a cycle also highlighted the generational connection between Lydia and her mother. This post is also interesting because Lydia geolocated the image, which was taken before digital photography was widely available. The location she tagged marked the area she and her family lived in at the time thus adding more context to the narrative by providing a place. Highlighting kinship and connecting to one’s ‘roots’ shows belonging that adds to the self-story. Posting pictures of or with caregivers or parents was frequently done in conjunction with birthdays or Mother’s or Father’s Day. For example, Lydia posted another picture of herself, her mother and her twin sister to celebrate her mother’s birthday with the caption reading: “Our lifegiver was born today 🌹”.

Figure 16: Instagram post showing porcelain plate as wall decoration

However, kinship or the younger self can also be mediated without showing people in them. Objects are likewise used to represent own childhood experiences or kinship relationships. Luca had gotten a vintage plate from his grandmother that he displayed on a wall in his flat. His grandmother was an important person in his life and during our interview, Luca often spoke of how close he was to her. When we scrolled through his Instagram profile, Luca stopped at a picture of the plate and explained to me:

"That's a plate from my grandma, she used to collect a lot of porcelain and she kinda passed it on to me now. And uhm, I find it quite cool with this caption, to have it on this high wall and then to also simply show 'Granny, look'. I mean, my grandma doesn't have Instagram (he laughs). Uhm, but also to let the others take part in it. Somehow to let them take part in, that things of my grandma … that they mean something to me and that I hang them up in my flat. That is also a memory. And the plate is hanging in my flat again. Yes."[67]

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[67] Interviewed on 22/10/2020. Translated from German: "Das is n Teller von meiner Oma, die hat damals ganz viel Porzellan gesammelt und die hat mir den quasi jetzt übergeben. Und äh, ich find das eigentlich ganz cool so mit dieser Caption, das irgendwie an dieser hohen Wand zu haben und dann einfach auch zu zeigen 'Omi, hier.' Also, meine Oma hat kein Instagram [beide lachen]. Ähm, aber einfach so auch die anderen Leute dran teilzuhaben. Irgendwie dran teilhaben zu lassen, dass Sachen von meiner Oma, dass mir das was bedeutet und ich in meiner Wohnung aufhänge. Das ist zum Beispiel auch ne Erinnerung

The image's caption read "Is it old fashioned to hang up a kitsch plate from your grandma on a wall? #porcelain #nan #❤️". Like Lydia's image of her sibling and her mother, Luca demonstrated kinship to his grandmother through the plate. Through the indirect question, he also told a story about from whom he got the plate and where the object was now. The heart emoji also symbolised his affection for his grandmother. In the interview, Luca also told me that he liked to post about visits to his grandmother and his relationship with her, also to motivate others to spend more time with their grandparents. Although his grandmother would not see the posts Luca still shared them as a way to show appreciation and love for her. Making the relationship between the two an important part of his identity performance on social media. This shared and conscious act of reliving memories through storytelling shows how memories of the past are appropriated to speak about the self in the present. These adjustments make use of affordances and the possibility to create a continuous narrative of the self.

Forgetting in support of a conformed identity

Memory does not only consist of remembering, but also of forgetting. Like remembering, forgetting is an ongoing process that does not fully lie under human control. Forgetting mostly occurs unconsciously and at random. However, whereas we can help ourselves to remember through repetition, media, objects or prolonged focus, forgetting is more opaque and harder to achieve at will. Processes of forgetting do not seem to follow certain criteria or logic for that matter. If external and mediated memory helps us to remember as outlined in Chapter 1, digital media can be an obstacle in attempting to forget (e.g. Hoskins 2013; Mayer-Schönberger 2009). While deleting digital memories should not be equated with forgetting, it carries the intention of removing parts of memory in the long run. On social media, it is also intended to remove it from the memory of others, in addition to personal remembering. Not being reminded of something does speed up the process of forgetting after all. Maurice Halbwachs elaborated on the process of forgetting in connection to memory frameworks:

"A recollection is the richer when it reappears at the junction of a greater number of these frameworks, which in effect intersect each other and overlap in part. Forgetting is explained by the disappearance of these frameworks or of a part of them, either because our attention is no

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einfach. Den Teller hab ich jetzt auch in der Wohnung wieder hängen. Ja."

longer able to focus on them or because it is focused somewhere else (distraction is often only the consequence of an effort of attention, and forgetting almost always results from a distraction). But forgetting, or the deformation of certain recollections, is also explained by the fact that these frameworks change from one period to another." (Halbwachs 1992, 1939, p. 172)

Halbwachs' iterations emphasise how forgetting and remembering represent two sides of the same process, with both forgetting and remembering relying on frameworks. When applied to the mnemonic tool of digital media, frameworks can be changed or disappear through deletion or changes in the digital infrastructure and its affordances. While the disintegration of these memory frameworks through deletion does not guarantee human forgetting, it is an attempt to force it into process for the self and others. Forgetting or attempting to forget are important in creating a picture of the past. Not everything that has happened to a person can be remembered and sometimes it is necessary for an individual to discard certain memories in order to move forward.

While seeing and preserving younger selves can be joyful and nostalgic, they can also start to represent embarrassment over time. How one used to dress, a certain haircut, images of ex-partners, certain behaviour in a picture or previously made statements that no longer align with personal opinions remind young people, of an identity they no longer want to be associated with. The narrative identity young people create through their social media profiles and posts, therefore needs constant revision and frequent adjustments. As van Dijck (2013) puts it: "The resulting narrative is a construction in hindsight, a retroactive ordering of life events at a moment in time." (204) Deletion is a crucial part of reorganising self-stories on social media and editing the narrative about the self. Identity narratives on social media are not static, but in constant movement, as they are periodically adjusted, restructured or newly created from scratch. Particularly, images participants had posted in their younger years needed re-evaluation after a few years had passed. Not only did the activities they wanted to highlight change, but also their digital memory practices were different now, for example moving from the indiscriminate uploading of photos from a night out to curating and avoiding content potentially damaging to them in the future.

"Yes, I used to party quite a bit and so on. And yes… you know (laughs) random party pictures that somehow looked a little bit too wild. That's not really necessary." (Louise 27 y/o[68])

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[68] Interviewed on 27/05/2020. Translated from German: "Ja, ich war früher öfters auch feiern und so. Und dann...ähm, so diese (lacht) irgendwelche Partybilder die irgendwie doch irgendwie in bisschen zu wild vielleicht aussahen, so. Muss dann nicht sein."

"A while ago I sorted out everything because my timeline [on Facebook] looked really awful. There were so many really uncomfortable posts from 2011, the time I was very active. What you could find there was very uncomfortable. So I've deleted it all because … it was stuff like like 'Oh school again today. I am not in the mood.' And yeah … stuff you did at the time […]"[69] (Janine 26 y/o)

'Cleaning up' older posts was mainly done to prevent other people from seeing these older versions, which could reflect negatively onto the person. Older images can also become unwanted when their quality is diminished over time. As pictures today are displayed in higher resolution, older pictures appear grainier or are no longer displayed in the right size and appear smaller because of smaller file sizes. While they do not physically decay like a book or other physical materials, they can no longer be viewed in their original state through the platforms they were posted on. Hence, young people tend to remove these pictures from their profiles.

To perform and care for a chronological image of the self, many participants went through several iterations of their Instagram persona; deleting accounts they felt did not provide a satisfactory reflection of how they saw themselves. Some participants felt like it was more favourable to forget the previous account, to start over again and use the account 'right' this time. Viktor spoke of a previous account he had deleted, because he wanted to start over with the way he posted and what content he posted. His second attempt at creating a personal account, therefore, already had the aim to look more professional, use better quality images and focus on his music. Compared to how participants treated physical images or those on their phones with great care worrying about a potential loss, deleting posts or whole accounts online had a lower threshold, when their objective was to recreate a more authentic and cohesive online persona.

Neele has deleted her whole account several times over the last couple of years which she described as "completely pulling the plug". She also had thoughts of deleting her current account which was around two years old at the time of the interview. But she kept it because she was satisfied with its current state and had shifted her focus on posting more landscape images she

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[69] Interviewed on 08/07/2020. Translated from German: "Ich hab vor ner Weile mal alles aussortiert, weil meine Chronik ganz schlimm aussah. Da waren dann so ganz viele unangenehme Posts von 2011, da war meine ganz aktive Zeit. Das war sehr unangenehm, was da so zu finden war. Das hab ich dann erstmal alles gelöscht, weil … so, so, so Sachen wie 'Oh heute schon wieder Schule. Keine Lust.' und ja … was man so gemacht hat […]."

took from her travels and only occasionally sharing selfies when she felt like it. Moreover, Neele mentioned the archive function on Instagram as another reason for not deleting her account this time. Instead of deleting her Instagram account entirely, she could archive the images she wanted to hide from others and had more flexibility in rearranging her self-story. In this sense, the archive function aids the platform owners in retaining users. Because young people invest a lot of time, work and consideration into creating their profiles they can prevent a feeling of loss while having more space to make others forget about certain parts of their identity narrative. Another factor that made the recreation of accounts less daunting was that images often still existed as copies elsewhere – either on smartphones or in physical form. While memories take on specific meanings and shapes through social media, their recreation or remodelling at a later stage often remains an option as opposed to physical memory objects. In addition, most participants had already lived through the rise and fall of other social networks, like Snapchat and Facebook or local networks like SchülerVz or StudiVz in Germany and believed that Instagram would ultimately face the same fate. Therefore, social media profiles project a sense of being temporary. While memory on social media is an important part of young people's memory practices it can be insufficient in providing a setting where memory or identity can be fully expressed, feel safe or be permanently kept. Hence, they entail a certain vulnerability for memory making.

The gaze of others was a strong motivator in adapting memory performances and restructuring self-stories. Moreover, images are taken out when the feeling arises that an image is unwanted by others or if it does not garner enough likes. Deletion is part of the ongoing management of personal information and negotiation of what information one feels comfortable with being accessible to other people. In fact, young people are worried that something they have previously posted might come back to haunt them later. These worries are not only linked to what they have posted themselves but can also apply to uploads of others. For example, one of my participants discovered through googling her name, that an image of her getting a tattoo was posted by the tattoo studio several years ago and would come up as a top result of the search. The tattoo was placed on a rather intimate area on her side body and the image popped up between her professional LinkedIn profile and student articles she had written. Finding this image, which she no longer remembered caused not only discomfort, but also worry that this might have an impact on how employers would see her and how this might affect her future prospects. While young people are aware that they might leave traces online even when they delete some of the content, the traces remain opaque and can only be grasped as speculation. The notion that the internet does not forget promotes

reflections about what should be deleted and emphasises young people's caution.

My presence and this research had also an effect on the reevaluation of personal accounts. During photo elicitation, participants often noted that they had forgotten about posting some of their posts because they had not seen them for a while. Some participants also remarked while scrolling through with me that they were surprised that a certain image was still on their accounts and thought that it would be worth deleting it. Thus, our discussions about their profiles and memories initiated a reflection on restructuring the narrative about themselves. I checked back on informants several times throughout fieldwork and could see that participants had deleted or reorganised their profiles shortly after the interviews. Furthermore, throughout fieldwork, I could see that participants had occasionally adjusted their profiles by deleting more images.

Deleting a post might not mean that the memory it represented is forgotten since images often continue to exist as back-ups on personal devices, other platforms or on other people's phones and accounts. Instead, deletion as a practice emphasises the importance of narrative identity on social media. This memory practice is ongoing and practised in conjunction with reflections about the self. It is important in finding an authentic expression of the current identification with the self, but is also dependent on identity performances and the adjustments to an often unknown audience on social media. Failing to adjust the past self to the present self can be detrimental to the potential of a young person's future.

Conclusion

Identity performances online are calculated, carefully crafted and often serve multiple purposes. The need to present a self-story on social media is increasing for young people because presenting personal information online has become the norm. Apart from a way to express themselves and their interests, young people are required to have a digital presence for their career projects and to facilitate personal social interactions. Presenting and creating a cohesive self is, therefore, important. Because digital media is often associated with fraud or misinformation, young people need to provide an authentic online version of themselves to build trust with others. As demonstrated in this chapter, memory is an important element in crafting such an authentic self-story. Whether through the accumulation of memories over time or the intended usage of childhood pictures speaking about the self online requires the transformation of separate memory

objects into a well-crafted narrative that is mainly supported by visual elements. Because social media allows to telling an open-ended story using images of a younger self also hints at possible future selves (van Dijck 2008, p. 63). The potential vulnerability of using memory for identity making, thus, requires foresight and a continuous negotiation of which personal information should remain accessible to others. Furthermore, digital affordances can support or hinder young people's willingness to let their memories remain on social media platforms. The more flexibility platform makers offer in adjusting identity narratives, the likelier young people are to maintain their profiles as opposed to their deletion.

While many of these practices are tied to social media, the crafting of such an online persona starts with digital devices. Devices like computers and smartphones are essential for interacting with social media and the creation of photographs. They are the counterpart to social media as they hold backups of digital memory objects. Identity performances and memory making on social media are interlinked and dependent on digital devices to create, share and maintain memories.

Chapter 7: Practices devices

Looking at the different forms and meanings that online memory practices hold, it is often forgotten that digital devices play a crucial role in these processes. Devices are given a secondary role in comparison to the interest in how memories manifest on social media and the internet at large. This negligence marks the continued demarcation of the online and offline as two separate spheres. However, I argue in this chapter, that digital devices are an important part of the memory making assemblage. The memories held on personal digital devices have a very different quality from those shared online as they are rarely curated. I will mainly refer to smartphones, laptops, desktop computers and tablets as digital devices, because these were owned and used by my participants, whereas other devices like smart speakers (e.g. Amazon's Alexa or Google Dots) or smartwatches were not mentioned in connection to personal memory making.

As alluded to in Chapter 4 young people have a particularly strong yet ambiguous relationship with their smartphones, which is central to the creation, sharing and maintenance of digital memory objects. Smartphones allow young people to take images in almost every situation of their daily life and to centrally keep and access memories as well as share them. Moreover, through the sending of images as a way to communicate young people often receive and keep images that represent memories of their close social relationships. This results in large quantities of images that create issues around finding adequate ways of dealing with large volumes of personal data when it comes to sorting and maintaining them for the future. In addition to managing memory objects on the smartphone, devices particularly laptops and external storage units have a significant place in the preservation of such objects.

Because of their more sensitive value, including information about other people, researching these memories requires additional ethical considerations. Young people have actively chosen not to share these images, which should be respected. Therefore, the analysis in this chapter is less focused on the content of these memories and is more interested in the engagements with digital devices that shape device-specific memory practices. This chapter explores memory practices like taking images, the collective sharing of images through devices and challenges in finding suitable long-term storage solutions for precious memories. The question of how to store images also evokes the return to pre-digital forms of memory and gives a new appreciation for physical objects

like printed photographs. Furthermore, this chapter aims to clarify how practices on social media are linked to those involving digital devices. Devices connect people to the internet and are always present in our digital interaction. Therefore, it is difficult to mark where devices end and the internet starts. This chapter highlights how these practices are dependent on and extend one another while defining specific differences in how memory is made on social media.

Taking pictures and videos on smartphones

Digital images are central memory objects for young people. When I asked participants in what ways they collected memories, generally, their first answer was "*photos"*. The important role of images was emphasised repeatedly. The smartphone allows taking snapshots of the everyday, as photography is no longer reserved for special occasions. Photography used to be out of reach for children and young people as a creative activity due to the costs of cameras and developing films, but digital photography has made it widely accessible to youth (Durrant et al. 2011). Taking digital pictures is a widespread and mundane activity as demonstrated in the previous chapters. The improving quality of smartphone cameras and their easy usage means that many can take high-quality images without extended knowledge about photography as used to be the case with analogous cameras. Many of the steps required of analogue photography, like adjusting the light and sharpness of the lens are done automatically by the phone. Moreover, the ability to switch between recording videos and taking pictures has broadened the scope of how young people record their everyday life and diversified the subjects of these records. Apart from smartphones, cameras are also commonly integrated into other devices like tablets and laptops, but are rarely used as a means to take pictures, because of their size. The smartphone as a constant companion has clear advantages for this memory practice, as it is always at hand and photos can be taken spontaneously. Janine (26 y/o), for example, spoke of automatism of taking pictures for her Instagram. Capturing everyday life experiences with one's phone has for many become a habit they found difficult to shake. From a nice sunset or something they noticed on the street to a meal and meeting others, many participants spoke of capturing things with their cameras often without thinking much about it. Emily even asked herself during our interview: "Am I taking too many pictures?" Taking pictures frequently and in large quantities implied that moments were not properly enjoyed and spoiled by taking pictures of them. Nevertheless, because so many pictures are taken regularly only a fraction of them make it to young people's social media, hence, the majority remains on their smartphone or are deleted immediately after being taken.

Young people take images with different intentions that influence for how long and for what purposes photos will be used. Some are taken to capture a moment for themselves or to experiment with photography for fun and as a creative outlet. Whereas other pictures are intentionally created to be shared with others. As discussed in Chapter 5 and Chapter 6 photos on social media are chosen with great care and shared with consideration. The way an image looks, the narrative it tells about a person and a young person's wish to communicate with others influences how photos are created with smartphones.

Femi (26 y/o) would drive to different locations to take images to take pictures for his Instagram account showcasing his fashion. This would sometimes include driving to another city or remote locations that look industrial or have interesting architecture to serve as a set. Femi spoke about enjoying taking pictures because he could try out his creativity. Although owning a professional camera he preferred to only use his smartphone and minimal accessories (e.g. a tripod) to photograph. Not needing to carry around heavy and expensive equipment allowed him to be more spontaneous. Although several participants owned a DSLR or compact camera they preferred to use their smartphones, because photos do not need to be uploaded to a computer and can be directly sent to friends and family or uploaded to social media.

Apart from his solo shoots, Femi would also meet up with friends to take photos together or of one another. Indeed, although selfies are common, young people rely on their friends to take images of them. As mentioned in Chapter 5, this supports the aesthetics of images and sometimes involves professional photographers. Most of the time this involves knowing which friends are good at taking pictures too. Neele described the processes of taking images when she was still active on Instagram, which involved several steps and often a lot of work. She used to prepare the content days in advance and posted it almost daily. At the time, Neele would usually spend more time with friends who were interested in taking pictures for Instagram as well and who also knew how to take nice pictures of her:

"[…] just because someone is taking pictures of me, does not mean that he or she knows how to do it (laughs cautiously), because uhm well […] uh, I'm not sure you get what I mean because I also have a friend who loves to take pictures, but then it's like, your plate with a half-eaten burger is on the picture and you're wondering 'why are you doing that? Why aren't you paying attention to stuff like that?' […] the picture itself is quite nice, but then there is a dirty table. I don't know.

Not to be mean, right, but […] yeah. Who has a feeling for taking pictures and who is actually interested in it?"[70]

Neele also alluded that taking pictures involved a lot of work for her:

"Well, first the preparation for such a picture and then you have three hundred pictures afterwards and then … for any other person every image would look the same. But for you, they are all different and then you edit from these two-hundred pictures another 50."[71]

Neele's descriptions show the different steps involved in producing a satisfying picture. Taking photos is easy but getting them to the desired quality requires consideration, curation and the enhancement of images. Often other smartphone applications are used to edit photos or videos. Young people often have a manifold of applications on their smartphones that are task-oriented (Miller et al. 2021). Neele used several apps that offered free trials and would change to another app when the trial expired to save money. Neele said that getting images ready to be posted on social media sometimes took her more than a day. Knowledge of how to take pictures and edit them afterwards is widely available, either through intuitive learning by using apps that gradually explain editing step by step or with the help of free tutorials on YouTube.

The children in the school also were very well-versed in how to use editing applications on videos and images. Before we started working with tablets to create short films in the workshop, I gave a short introduction to the editing software iMovie, which was pre-installed on the children's iPads. However, after I was only a few minutes in, one of the boys in the class interrupted my explanation by saying: "But Miss, everybody knows that." His intervention was supported by the other children in the workshop who nodded approvingly. Indeed, the children were already proficient in editing software through their personal use of digital devices. This example suggests that knowing how to edit videos and photos starts from an early age. Furthermore, young people often use photography

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[70] Interviewed on 16/06/2020. Translated from German: "[…] nur weil jemand Bilder von mir macht, heißt das ja nicht, dass er oder sie das kann [lacht verhalten] also ähm, ja. […] äh, ich weiß nicht, ob du verstehst, was ich meine, weil ich hab auch ne Freundin, die macht richtig gerne Bilder, aber dann ist es halt irgendwie so, dein Teller mit halbaufgegessenem Essen drauf und du denkst nur so 'Warum machst du das? Warum achtest nicht auf solche Sachen?' […] das Bild ist an sich ganz nice, aber dann hast du so den dreckigen Tisch, ich weiß nicht. Also, ist gar nicht böse gemeint, ne, aber […] ja, wer hat n Gefühl dafür, Bilder zu machen und wer überhaupt Lust da drauf?"

[71] Interviewed on 16/06/2020. Translated from German: "Also erstmal in der Vorbereitung für so'n Bild und dann hast du nachher deine 300 Bilder und dann für jeden anderen Menschen würde jedes Bild gleich aussehen, aber für dich sind sie alle unterschiedlich und dann bearbeitest du von diesen 200 Bildern nochmal 50."

and editing as a pastime, because of their accessibility and the opportunity to create images together with friends.

However, this ease and accessibility give rise to an ambivalent relationship to photographing as images can be reproduced in seconds, which often leads to regarding them as disposable. This stands in contrast to the care young people take in creating images involving planning and multiple actions. Seeing images immediately after they have been taken allows making a selection that is followed by several other selective steps. As mentioned in chapter 5, seeing many professional-looking images in high quality makes young people critical towards their images. This also creates certain expectations of how a good picture ought to look like. The reproducibility of digital images can lead to a lack of appreciation. "All digital copies are indistinguishable from the original. This has the advantage of giving everyone who possesses a 'copy' perfect access to all of the information and value of the 'original' (Mayer-Schönberger 2009, p. 60). People can also preserve fleeting objects or images through screenshots. Screenshotting is a common practice that can be very mundane, used to reproduce an image or recorded to solve as a form of evidence later on. As discussed also observed by Handyside and Ringrose (2017), young people find ways to make ephemeral information last. Due to this reproducible quality digital photographs are often framed as shallow memory objects by young people. Hence, a few participants have turned to analogous photography in the form of polaroids or film-based cameras as another way to engage with photography. Those who returned to this form of photography stated that they enjoyed the care that is needed to take good analogous pictures, for example considering the light and contrasts that smartphone cameras would do automatically for them.

Louise described how taking analogue images was a quite different experience for her by talking about pictures had taken during a trip to the USA:

"[…] well you don't just make *click click*. You also have to adjust the light. Well we probably needed three minutes per picture. Really, you need to first [imitates motion of adjusting the camera]. And then at the end of the holiday you really had a stack of really great shots, because you made an effort for what is on it now."[72]

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[72] Interviewed on 27/05/2020. Translated from German: "[…] also da macht man ja nicht einfach klick klick, da musste man da auch noch das Licht einstellen. Also, man hat pro Foto bestimmt drei Minuten, also echt erstmal so [macht Bewegung des Einstellens nach], ähm, gebraucht und dann hatte man aber am Ende des Urlaubs echt so'n Paket mit richtig tollen Aufnahmen, weil man hat sich ja Mühe gegeben für was da jetzt drauf ist."

Louise had also posted some of these pictures on Instagram, by taking a picture of them with her smartphone. The convenience and ease with which high-quality images can be produced also allude to a lack of meaning as pictures can be produced *en masse*. Anouké (23 y/o) compared her own usage of photography with the way her parent's generation took pictures:

"So now we got the impression that a picture is about more aesthetic as opposed to, you know, 'Oh, this was when I [did such and such] …' or opposed to it strongly being connected to a memory or something like that. Because I think my parents have more this aspect. Even my dad in those pictures … my mum and my dad when we used to take pictures, when we were young and when they were young as well. They were like proper memories, obviously you still get that now. But I think the aesthetic aspect wasn't necessarily there."[73]

Although taking digital photos is a big part of young people's memory making, they often value them differently than physical photographs. The interest in analogue photography is in itself an expression of nostalgia for simpler and pre-digital times that are reconstructed as being less superficial. While this assumption does not necessarily represent the reality of these times, it highlights once more the separation between digital expression as fake and physical expression as real. Despite the often elaborate processes behind taking digital pictures, it is contrasted to the skill, care and time needed to produce photos analogously. This does not mean that digital photographs are not valued as memory objects. As described, they often require a lot of planning and much work can be put into them until a satisfactory picture is created. I suggest that it is often not the initial picture, which has great value when taken, but the consecutive practices of sorting, editing and repurposing that gradually give digital photographs value as memories. As shown previously digital memory objects, like other memories, gain meaning over time and through interaction with others.

Sharing personal memories via applications

Smartphones as physical objects contain other objects in the form of applications "exposed on a smartphone's screen in the form of icons, they spring to life when touched" (Miller et al. 2021). A smartphone functions rely on the assemblage of such applications that allow providing specific services to facilitate a task. Applications facilitate the taking of images as well as access to where

[73] Interviewed on 21/02/2020 in English.

they are stored on a device so they can be retrieved through the device. Many applications are also directly linked to the storage of images to allow their re-usage in different contexts. For example, when sharing images with others through WhatsApp the app also creates a copy of the images in the smartphone's gallery. WhatsApp is not a social medium per se, but often seen by participants as having a primarily social function and therefore being akin to social media. This highlights once more how the terms social media, the internet and digital media are often used interchangeably. Although some participants also installed alternative messengers, like Telegram or Signal, they mainly texted and sent audio messages via WhatsApp. Some informants also communicated through Facebook Messenger, another service owned by Meta, which is linked to people's Facebook accounts. This application was rather, even though not exclusively, reserved for group conversations or people, they were loosely acquainted with.

WhatsApp as the main messaging service used by young people emphasises Meta's dominance over digital infrastructures and how people interact with digital media daily. WhatsApp is an essential communication service through which young people communicate with close family members, friends and their wider social networks. In these conversations, images are frequently shared. Depending on the conversation, images assist and illustrate what a person is doing right now and are sent to discuss memories or facts to highlight facts – this visual communication adds to the conversation and narrative. These forms of visual communication can also include GIFs and memes. This exchange also reflects in a material way the connections young people have with others as the interaction with the smartphone are recorded and visualised through chat histories. Furthermore, conversations can become part of young people's memories preserved to be potentially looked up again in the future.

When asking participants whether they would show me the photo galleries on their phones the same way they had shown me their social media profiles all, apart from two individuals, objected. This reaction came down to three reasons. Firstly, the presence of intimate images on their phones that sometimes included nudity. Secondly, participants were concerned that images on their phones would not reflect them well, as some pictures or memes could express the opinions of people they were in touch with. Thirdly, receiving large amounts of pictures constantly also meant that they had no overview of what pictures their phones actually held. The way images are shared and viewed on phones is messy as opposed to the curation and selectivity that defines memory making on social media.

Nevertheless, exchanging images with others is an important common practice and collective memory of a group. Anouké for example said that she would mainly let other people take pictures and ask them later to be shared with her: “How do I take pictures? Do I even take pictures? I think mostly other people take pictures for me. Or when I am with them. Yeah, from time to time I do that. But far less now. Yeah, I think people just take pictures. Or I just tell them to take pictures for all of us.”[74]

Being able to create multiple copies of the same image comes in handy when sharing with friends and family or people in their wider networks through messenger services. Creating shared folders is an additional way of making images accessible to others. Louise (27 y/o) described a ‘family folder’ where she would share photos of her and her husband with his parents: “[…] right you can share your photo folder and then I shared one with my husband and the family, they are living in the US and then…so that they could also witness a bit of our life, so we can put a couple of photos in there. Yes. And then they’re also somehow secured.”[75] Using shared folders is an intimate form of sharing memories as the access is restricted to a few close individuals.

Generally, memory on smartphones is individualised, but also a reflection of different and sometimes overlapping social networks. The collection of memory objects on each phone is unique, but also part of a wider collective memory. Getting images sent in the family group on messengers or using shared folders can emulate the family photo album that grows over time. Particularly, when young people live far away from certain family members and friends, shared folders and messengers provide the possibility to share intimate moments without the gaze of strangers or entrusting these memories to social media. Furthermore, it guarantees that these memories are held collectively.

Maintaining and caring for digital memory objects

Taking images with your phone is easy and fast and can be a social activity undertaken with others.

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[74] Interviewed on 21/02/2020 in English.
[75] Interviewed on 27/05/2020. Translated from German: “[…] also genau man kann so Foto-Ordner teilen und da hab ich dann einen, genau mit meinem Mann und der Familie, die sind in den USA und dann […] damit die auch so’n bisschen was aus unserem Leben mitbekommen, können wir da mal n paar Fotos reinpacken. Genau. Und da sind die dann auch irgendwie gesichert.”

However, creating images in large quantities also means that personal photo archives are constantly growing and require the development of strategies to organise and preserve them. Digital photographs require ongoing maintenance. Although digital media records are often described as being free from physical decay, hence being perceived as everlasting (Hoskins 2013), participants often highlighted the fragility of their digital memories. The practices concerning the maintenance of digital images are worth considering, because practical issues of memory making with digital media are revealed expanding on theoretical notions of the digital. In contrast to the frequent revision of their social media profiles, young people rarely organised the images on their phones and kept them the way they received or created them, although participants occasionally deleted images they no longer found useful. This mainly affected duplicate images, memes or other entertaining images they had exchanged with others via messenger services as well as screenshots they took e.g. of directions on a map or details from a website. These types of pictures were also deleted after they had fulfilled their purpose as a means to inform or communicate as opposed to being valued memories.

As outlined, young people can receive large amounts of images per day. Regardless of their interest in photography their phones quickly fill up making it difficult to keep an overview of what images are stored. Participants reported that their phones contained tens of thousands of pictures. Compared to the neat and well-kept online personas on social media that are meticulously curated personal photo archives on devices are messy and many face issues with managing these large amounts of personal digital information. Images have to be reviewed on a one-by-one basis to assess, whether they are worth keeping. Thus, participants frequently voiced that they did not bother with ‘cleaning up’ their galleries if there was no immediate need for it. This expresses an insufficiency within the affordances of smartphones in allowing simple management of images.

For example, Emily spoke of wanting to organise her pictures during one of the several Covid-19 related lockdowns that occurred in the UK. For Emily, cleaning up her images was “a bit of a daunting task”. Her intention was further complicated because her images were spread out over her personal devices and those of her family:

"I've got 27,000 pictures … I really need to delete them. And I'm really awful at like screenshotting things and then just forgetting about them. So I had to put them on an external hard drive. So I've got an external hard drive that I use to store my photos and that kind of thing. And we have the same at home. So for my family computer. And we've even got folders of like scanned photos from when I was younger. So they're all like, stored on an external hard drive as well. And along with the digital photos and videos from like holidays, and things […]."[76]

Maintaining personal memories with devices is labour intensive because of their volume that keeps on increasing. Once organised into folders or other organising systems, photo collections quickly become messy again, as new pictures are received or created. Memory objects exist in multiple storage places at once. While the smartphone is integral in creating and sharing images with others, it was often seen as a fragile place to store images for the long term. As Emily's explanations highlight young people create several back-ups over different devices. Because the smartphone is such a central object, having everything in one place makes memories vulnerable to loss. Phones can be lost or are subject to theft resulting in the loss of memories of several years, but can also be damaged by dropping them on the floor or into water. Moreover, smartphone devices also fail through planned device obsolescence, a business strategy that prioritises the production of ever-newer devices that need frequent replacement instead of making them long-lasting. This results in devices like smartphones being difficult to be repaired, but also their batteries becoming less efficient over time (Ploeger 2017). In addition, obsolescence is also executed by seizing to provide updates to operating systems for older models or devices that are slowing down with the releases of new operating systems that are tailored toward new devices with more processing capacity. Losing personal memories because digital devices broke or were lost or stolen was a common experience amongst participants. Dilan also described how she struggled with maintaining her personal digital memories and how the loss of digital memories has affected her younger sister:

"Uhm, because I don't manage to properly put it into order. But I'm planning to. Well, even today I thought about whether I should get an external drive. And I think that's very important because I can see with sister, for example, who is ten years younger than me. Uhm, she doesn't really have any childhood pictures. Well, partly some phones broke or some laptops and all of it was deleted. And that's not the case with us [referring to her generation]. We still got these childhood albums, uhm, photo albums, where everything is still kind of there. And that's pretty dangerous."[77]

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[76] Interviewed on 06/11/2020 in English.

[77] Interviewed on 14/12/2020. Translated from German: "Äh, weil ich das einfach nicht gescheit hinkriege, da irgendwie so ne Ordnung reinzukriegen. Aber hab das eigentlich vor. Also, ich hab da sogar heute noch drüber nachgedacht, ob ich mir ne Festplatte holen sollte. Und ich glaub, das is sehr, sehr wichtig, weil, ich seh das zum Beispiel an meiner Schwester, die ist zehn Jahre jünger als ich. Äh, die hat keine Kindheitsfotos richtig. Also, da sind zum Teil Handys kaputt gegangen oder irgendwelche Laptops und das alles wurde

The fragility of digital media is expressed in such personal experiences. Laptops, desktop computers and external hard drives are chosen as back-up solutions as they are more stationary than a smartphone. Nevertheless, these devices can certainly also break or be lost but having multiple backups provides a sense of security even though this means an additional storage place that needs to be maintained. Janine for example had a lot of images on her old laptop, but when it broke she lost a large part of them. Thus, she decided to use only her smartphone for images, as they could be backed up automatically to 'the cloud'. In addition, young people often run out of the smartphone's storage space as different applications compete over storage and photo collections grow. This is opposed to the idea that digital media can provide endless storage capacities when it is limited in practice. It is often when this limit has been reached that young people curate their pictures. When a smartphone reaches its capacity, some of its functions are no longer available motivating young people to free up space by deleting some of their images. This process is not well structured as it mostly serves to free up a few hundred megabytes to restore the phone's usability. Thus, the phone's affordances and capabilities directly influence the revision of what should stay and what should be forgotten. Freeing up space is also an occasion to reminisce over the past initiated by the phone's affordances. It sparks a reassessment of a person's personal memories, through which memory objects can be rediscovered. Because this assessment is reoccurring and ongoing, I speak of maintaining digital memory as opposed to preserving it as these objects are in flux and frequently copied and moved.

Having to remember to back up personal data can be a chore. The pre-installed connection between phones and cloud services aims to take on this task so backups stay up to date. Storing images on cloud services has become an important way to maintain personal memory. More than half of my participants used an Apple iPhone whereas the rest had Samsung smartphones. Each of those device manufacturers uses their own connected cloud services – Apple devices are linked to iCloud, and Samsung and other Android phones are using One Drive. However, cloud services can come at an additional cost. Cloud services are free but charge a monthly fee for providing storage space from a specific size. For example, at the time of writing, Apple offered 5GB for free to any customer who signed up. Remembering that most young people have tens of thousands of

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gelöscht. Und bei uns ist das nicht so. Wir haben noch diese Kinderalben, äh, Fotoalben, wo alles noch irgendwie da is. Und das is schon, ja, sehr gefährlich."

images collected over several years this space is not sufficient for most. For more storage capacity, monthly plans can be subscribed to ranging from 50 GB for 0,99 up to 2 TB for 9,99 €. Didier (20 y/o) used the 50 GB option:

"[…] yes, I'm a grandpa when it comes to stuff like this. I don't know how this works at all. Well, I've, I've … I don't know. I pay 99 cents per month for 50 GB iCloud, but if this is really secure … when everything is gone. Well, when everything is gone, it's gone you know. Inshallah, when my pictures are getting deleted by someone then that's how it is."[78]

Using cloud services is often more convenient than having to think of making regular backups themselves, which requires the usage of additional hard drives. However, by outsourcing the task of backing up information, young people also have less control over access to their personal memories and care less for their maintenance. Unlike smartphones, laptops or external hard drives, the computers that run cloud services and ensure the storage of data are out of control for individuals, which requires a certain level of trust in the companies who provide these services. Some participants felt like they did not have the technical knowledge to understand how their data would be stored. Furthermore, because the automatic backing up ran in the background some were not sure which of their images the cloud held. Neele used iCloud but was uncertain about which images were on it as she did not check her cloud frequently and thought she had locked herself out of it:

"I tried the other day to access my iCloud to see which pictures are actually saved there. Because the whole time I'm told that my iCloud storage is full and I need to make some space to upload new images. But until now I didn't manage to figure out which pictures are actually on the cloud. And as you can hear I'm not a technophile."[79]

Neele's experience also resonates with Janine's experiences of being afraid she might have lost some of the images of her cat when she moved to a new phone. As described in Chapter 5 Janine had issues synchronising her cloud with her new phone. Apart from occasional access issues, cloud

[78] Interviews on 06/08/2020. Translated from German: "[…] ja, ich bin n Opa bei sowas, ich weiß gar nicht, wie das funktioniert. Also ich hab, ich hab, ich weiß nicht […] ich zahl 99 Cent im Monat für 50 GB iCloud, aber ob das jetzt abgesichert is … wenn alles weg is, aber also wenn es weg is, is es weg, so. Inshallah, wenn meine Fotos von irgendwem gelöscht werden, dann is es halt so [lacht]."

[79] Interviewed on 16/06/2020. Translated from German: "Ich hab jetzt auch letztens mal versucht, auf meine i-Cloud zuzugreifen, um zu gucken, welche Bilder da überhaupt gespeichert sind, weil es die ganze Zeit heißt, äh, mein i-Clouds-Speicher sei voll und ich müsste Platz schaffen, um neue Bilder zu laden, aber ich hab's bisher noch nicht auf die Reihe bekommen herauszufinden, welche Bilder sind denn überhaupt auf dieser Cloud. Und wie du schon hörst, ich bin nicht Technik-affin."

solutions are also evoking suspicions amongst a few participants as to what might happen to their images. As with other online-based services they had concerns over privacy and how companies might be using their data. Being able to back up images without a laptop or external hard drive also meant that some participants did not feel like they needed a laptop or desktop computer anymore, because they could do all essential tasks with their phones.

Similar to how young people have started to rediscover analogue photography, some participants started to print out their digital images to keep them in photo albums or place them in their rooms. One reason was that young people felt like pictures in physical form were safer than keeping them on digital devices or the cloud. Another reason was that they found them easier to curate and engage with. Furthermore, participants stated that they enjoyed the physical engagement with pictures because it was 'nicer' than scrolling through a phone or on a computer for a long time, as physical images provide a tactility that cannot be replicated by digital devices. While young people can feel a closeness to the devices themselves, the images on them feel removed as they are not a fixed part of the medium and are summoned and hidden at will. This also makes it harder to focus on a specific object at a time as digital devices have many purposes that compete with people's attention.

Algorithms and photo galleries

As discussed in Chapter 5 algorithms are becoming more important in a manifold of computational processes that also affect wider societal issues. The encounters that young people have with algorithms, thus, go beyond social media. Algorithms' capability to sort through the content and in a sense curate information for people has also been applied to photo galleries on smartphones. Within photo galleries, algorithms are used to help people to sort and organise their elaborate photo collections. The algorithmic sorting of galleries is based on facial recognition, where algorithms recognise a person's face based on the face's biometric points. The software then looks for the same or similar points in people's pictured faces and the algorithms match the image to each other. Facial recognition is a common feature on smartphones of the newer generations as this technology can also be used to verify a person's identity to unlock phones. Similarly to social media, algorithms on devices are encountered through mundane interactions. Because the content of phones is usually not shared beyond close personal networks, algorithms here do not take on the role of gatekeepers and have a more banal connotation. Young people mainly use them to complete

tasks like unlocking their phones or searching for a specific photo. The recommendations that algorithms make here are more subtle than on social media because they can easily be ignored. Within a phone's photo gallery images can be searched based on a face, an object or keywords where all matching images will be assembled. The algorithms even suggest images based on moods or events like Christmas or weddings. Although issues of organising personal images are prevalent, algorithmic aids are rarely incorporated into personal memory practices. Algorithms can ease finding a specific picture but are less helpful in organising and maintaining memory objects in the long term. Therefore, young people still need to put time and effort into how to organise their photos. Instead, participants used algorithmic sorting features mainly out of curiosity rather than to manage a task. When I spoke with Didier (20 y/o) about the feature he excitedly told me:

"Yes, I definitely got that too. Quite crazy, I didn't know … when I saw that you can even enter things on top of the search bar and that it finds them for you. When I type in 'tree' then it finds a tree. A picture of a tree from me. And when I type in 'belly button', then it would find a photo of a belly button. What? What kind of … just completely crazy, yes."[80]

Didier's explanations portray common amazement about the capabilities of today's technologies. The amazement of and curiosity about technological capabilities can quickly turn into discomfort as the impression that these machines can think for themselves emerges and is implied by terms like artificial intelligence. Yet, this sentiment can be easily broken when the algorithm produces mismatches that exemplify that these technologies are prone to errors and far from being a hundred per cent accurate.

As mentioned earlier the curation of images on devices is often not sufficiently supported by the affordances. Contemporary photo galleries on smartphones also suggest short slide shows that consist of images found in the gallery. These images are selected by algorithms that also choose music to create an emotional atmosphere in accordance with the images. Nonetheless, the algorithms often edit images that do not fit together, portray people in awkward postures, mismatch people or do not fit the overall mood of the clips. For example, a funny facial expression can be

[80] Interviewed on 06/08/2020. Translated from German: "Ja, ich hab das auf jeden Fall. Voll krass, ich wusste nicht … ich hab das, als ich das gesehen hab, dass man auch sogar Sachen eingeben kann oben in der Suchleiste und dass das dann findet. Wenn ich 'Baum' eingebe, dann findet das nen Baum. N Foto von nem Baum von mir und wenn ich Bauchnabel eingebe, dann würde das n Foto von nem Bauchnabel finden. Was, was ist das bitte für'n … vollkommen krass, ja."

added to a slide show that evokes a contemplative mood. These small clips are seen as entertaining rather than valuable to personal remembering. When I asked Luca (26 y/o) whether he used these short clips often he responded:

"No, but somehow they're 'nice to have'. Because I also find it quite cute when it's accompanied with music and I've somehow suddenly got an added emotional mood because you see something there. I think that's quite sweet. They also did it … quite well. You've got to admit that [Jennifer laughs]. They know how to catch you."[81]

Emily also stated she did not use the feature regularly because she found the process odd: "So it's kind of weird, I think it's weird. Because you haven't made it with your memories. Your phone has made it for you. That's what he thinks was a nice time. Yeah."

As mentioned in Chapter 6 being able to create a narrative around memory objects is important for young people's remembrance and the way they relate to their memories. Algorithms take this process away from their practices. This indicates the important place that the act of curating memory has in young people's practices. Consequently, memory practices particularly digital ones depend on the choosing, editing and arranging of memory objects and continued reflections. Digital affordances on devices hinder the creation of a cohesive story about personal memories and are not improved through this algorithmic narration. The curation and storytelling of memories are essential in creating bonds to digital memory objects. While devices safeguard memories, their affordances often lack sufficient support to rearrange and narrate these memories. Instead, young people use applications to create narratives and have conversations with others about them which enhance their emotional connections to these objects. Dilan (22 y/o) commented on algorithmically created clips: "Uhm, and I find it a bit unnecessary. Because I believe no one uses these videos for something in the end. At least I've never seen someone share it on Instagram or something like that. Uhm, I'm just wondering what the point is."[82]

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[81] Interviewed on 22/10/2020. Translated from German: "Nein, aber is irgendwie auch ganz 'nice to have' irgendwie. Weil ich das auch irgendwie ganz süß finde, wenn das so mit Musik untermalt ist und ich hab drüber plötzlich irgendwie so ne emotionale Stimmung plötzlich, weil man da dann irgendwas sieht. Finde ich irgendwie ganz sweet. Das haben die halt einfach auch … gut gemacht. Muss man ganz ehrlich sagen [Jennifer lacht]. Die wissen schon wie man einen catchen kann."

[82] Interviewed on 14/12/2020. Translated from German: "Äh, und ich find's auch n bisschen unnötig. Also, ich glaub, kein Mensch benutzt diese Videos irgendwie dann für irgendwas. Also, ich hab noch nie gesehen, dass irgendwer das auf Instagram oder so geteilt hat. Äh, ich frag mich halt, was das bringen soll."

Dilan was also concerned about what this type of remembering might do to human remembering. She felt that when technology decides which memory is important and which is not, it might affect how we perceive them.

"Then you have a random picture of something very neutral and then it's added to one of your most beautiful memories. Or that your phone thematically selects random pictures and then says 'these are your more beautiful memories now. This influences your own emotions, your perception of why this one picture has been selected by your phone and being added."[83]

Dilan's remarks echo concerns about being manipulated by algorithms on social media. Algorithmic sorting and rearrangement of pictures do not create the same connection as the often labour-intensive practices of curating, organising and deleting memory objects. The practices described throughout the thesis are more than just ways to preserve digital memories, they also highlight how emotional connections to these objects are formed. The functions of algorithms for memory making are not as useful as advertised by their makers. While being user-friendly in their handling they lack meaning to young people's memory practices. Although algorithms are becoming more accurate and improving their ability to understand and match content, they cannot learn which memory holds particular personal value. Personal memory is deeply connected to the creation of personal and collective meaning which makes the future popularity of such features unlikely.

Conclusion

Devices are essential for the creation, sharing and maintenance of digital memories. Including devices in the investigation of memory practices can give more insights into the variety of practices. These practices allude to the possibilities digital devices open to memory making, but also to their limits. Furthermore, devices highlight the materiality of digital media and reveal issues of maintaining and organising memories in the long term. Producing and maintaining digital memories creates several issues that become more complex over time. Maintaining digital memories possibly for personal future usage is challenged by the ever-growing amount of data

[83] Interviewed on 14/12/2020. Translated from German: "Dann hast du irgend n Bild von etwas sehr, sehr neutralem, dann wird das mit zu deinen schönsten Erinnerungen hinzugefügt. Oder dass dein Handy so thematisch jetzt irgendwie Bilder raussucht und dann sagt 'das sind jetzt deine schönen Erinnerungen', also das macht ja auch was mit dir. Das beeinflusst ja deine eigenen Gefühle, deine eigene Wahrnehmung, warum wird gerade dieses eine Bild jetzt ausgewählt von meinem Handy und das wird damit hinzugefügt."

and the fragility of digital devices. Mnemonic aids that are developed by manufacturers like algorithms that are meant to help individuals with managing their data are not solving these issues. This chapter also alluded to the importance of practices of curating and maintaining personal memory to distinguish them from mere recordings. Caring for pictures, editing them, reshuffling and updating them are activities that also create emotional bonds to these fleeting objects.

These device-based memory practices exist in relation to those on social media highlighting their assemblage character. Social media influences how young people create images and what characteristics they value in them. Young people have greater expectations of how a picture should look and how they want to represent themselves in it.

Social media platforms are changing quickly with new features added, designs altered and terms and conditions adjusted. Smartphones, however, have fundamentally remained the same over the past 10 years, although their storage has grown, their cameras have improved and the mobile networks they use can exchange greater amounts of data. This is similar to laptops and tablets that have changed little in shape or function. Nevertheless, these consistent design elements do not protect memories from the test of time as these devices become quickly obsolete and need frequent replacement. Digital memory objects, thus, exist in several iterations that make their maintenance even more complex. Unlike photo albums, digital memory objects need frequent revisions through the change of devices and digital affordances. Maintaining and caring for needs a certain level of planning and time that young people do not want to or cannot give to them.

Chapter 8: Typology of memory practices

This research set out to investigate the memory practices of young people. Following the main research question of "What are young people's practices of creating, sharing, accessing and maintaining memories in connection to digital media?", I have uncovered the crucial role that digital media plays in contemporary memory making. So far, I have described the different elements of the arising memory assemblages as well as factors that promote and hinder young people's memory practices. Instead of a neutral tool, digital media are reflecting cultural and societal belief systems, monetary interests, politics, power structures and material disparities. Using digital media for personal memory making, thus, reflects these broader themes exacerbated by young people's role as *people of becoming*. This chapter discusses the memory assemblage that has emerged in the findings and puts its elements in relation to each other. The discussion will also allude to the wider implications of these emerging memory practices in context to the two sub-questions of this study, namely:

a. How do the effects of technologies on young people's everyday lives affect their memory practices and what meanings do they attribute to these practices?

b. What media infrastructures, devices, rituals and collaborative practices are used by individuals to collect, maintain, access and share memories?

Furthermore, I will highlight the role of three vital memory modalities identified through the findings, modalities arising from smartphones, social media and what I will call 'storage units'. These modalities allude to the affordances of each of these technologies and how they frame memories. Following this, I will present a typology of young people's memory practices to answer the initial research question. The typology aims to provide a theoretical framework to the empirical research findings that can be applied to future work in this area, categorising practices into three main areas of creating, sharing and maintaining memory. The categorisation is also based on the emotional affordances a modality provides and the different intimacy levels that can be generated. A typology always represents a simplification of complex realities. Nevertheless, it is useful in highlighting specific commonalities that I have found through my research. While not part of the

typology I will also discuss issues in regard to *practices of passing on*. These issues crystallised through conversations about the loss of data, devices and the return to analogues practices as a safe alternative to digital memory making. The chapter will close by reflecting on the wider implications of this research and address its limitations.

Remembering the everyday

Digital media has an important place in the everyday lives of young people. As a firm part of daily life, they influence various facets of social interaction, education, labour and economic activities. The findings fit in with other works concerning youth and digital media (e.g. Bennett and Robards 2014; Mesch 2010; Itō 2013; Vickery 2018) that illustrate how young people are constantly associated with new technologies and given the role of early adapters. Because of this extended time spent with digital media, it is no coincidence that a large part of their early and current lives is documented and preserved online. As addressed by scholars researching mediated memory, media and digital media in particular have a substantial influence on how we create and conceive memory (Garde-Hansen et al. 2009; Sommer 2018). Digital media encourages young people to record and share their daily lives online, which results in a growing interest in capturing the everyday and speaking about it. Therefore, it is not only big historical events or people's relationships with them that can tell us about memory. Memory practices based on digital media can bring a new focus to the study of memory that highlight the mundane. Understanding digital media as part of the everyday also emphasises that digital media is no longer new. Instead of focusing on their novelty, attention can be shifted towards their entanglements with contemporary life.

Digital media practices and the cultures that form around them are giving new meaning to memory making. Being online is more than escapism or a banal leisure activity. Memories produced with digital media are deeply intertwined with young people's sense of identity, ambitions, morals and worldviews. The majority of this research was conducted during the Covid-19 pandemic which exacerbated the importance of digital media. The memories that people made digitally gained new importance as reflections of an everyday that was lost and uncertain to return to in the near future. For young people, social media platforms like Instagram became ways of discussing these changes through humour as expressed as memes and reels, but also through sadness and nostalgia as their memories on the platform reminded them of a time before the pandemic. This stands in contrast

to Andrew Hoskins's "sharing without sharing" (Hoskins 2017, p. 2) where online activities such as posting or liking are only creating illusions and a feeling of being active and connected to others. Seeing young people's practices in detail and speaking to them makes clear that the matter is far more complex than digital activities being fake or an illusion. Upholding distinctions between online life as unreal and offline life as real is unhelpful, when researching digital memory practices because it sets boundaries based on pre-conceived notions of technology – often deterministic in nature. Digital media is more than a virtual dream world – it is 'real' life. I propose that looking at how technology actually plays out in people's lives can provide a deeper understanding of how memory is changing. Remembering with digital media is not inferior to offline practices, but embodies great levels of complexity because of its networked character. Acknowledging this does not mean that these technologies are unproblematic or neutral. The focus on the everyday that social media supports is based on the interest in acquiring as much information about users as possible. Predictive time as proposed by Veronica Barassi (2020b) is part of young people's memory making, showing surveillance capitalism's influence on what and how people remember.

The findings align with remarks made by anthropologists on multiple occasions that argue that the offline and the online should be thought of deeply connected (e.g. Miller and Horst 2012; Wilson and Leighton C. Peterson 2002; Pink et al. 2016). The perspective that digital anthropology can offer lies exactly in tracing the connections between the digital and the offline. This aligns with memory scholars' demands, that memory making cannot be understood in isolation and needs to be contextualised (Sebald and Döbler 2018). Hence, the results add to the arguments that the study of digital memory requires more than researching media texts. Furthermore, by paying attention to the life worlds of young people, we can identify discourses around technology that are heightened through the social standing of youth in society.

Youth and Digital media – a relationship marked by paradoxes

The digital practices of young people highlight the paradoxes and ambiguities surrounding discourses on digital media. Young people are critical of digital media but need it for various areas of their lives and cannot choose whether to engage with them or not. Like other works in the area of youth and education (Livingstone and Blum-Ross 2020) have emphasised, the findings reflect the importance of digital media to make young people ready for the labour market. As a result, active engagement with these technologies commences at an early age to meet anticipated future

needs. As the findings have shown multiple times, this expectation of advanced digital literacy clashes with worries about digital media's effects on society that are frequently exemplified through young people and their behaviour. As *people of becoming*, youth are seen as malleable and treated as representatives of an unknown future. Accordingly, youth's usages of digital media are harshly criticised, but rarely contextualised to the demands they face in terms of education and future work prospects. Consistently, concerns over young people's mental health and anti-social behaviour surfaced during fieldwork, including their ability to concentrate and memorise. This focus on individual behaviour, as argued in Chapter 4, distracts from large structural issues resulting from the current state of digital governance and the increased monopolisation of crucial digital infrastructures. The disproportionate scrutiny of youth in contrast to other age groups hinders new ways of imagining digital media and the development of alternatives to the current digital ecosystem. Nevertheless, the emphasis on youth behaviour supports Deborah Durham's (2004) concept of youth as social shifters as it unveils broader cultural shifts and anxieties under the pretext of debates around youth culture.

However, youth are more than amplifiers of societal tensions. Researching youth and their experiences has value in itself. Young people have many critical views about the place of digital media in their lives, often making them the harshest critics of their own generation. The ambiguity about digital media expressed by participants highlights both techno-somnambular and techno-deterministic views. On the one hand, young people believe that they can use digital media as a neutral tool that can be moulded and formed to their needs and liking. On the other hand, the effects of digital technologies are felt through multiple aspects of their lives resulting in feeling manipulated, if not even controlled by it. The lack of regulation of technology companies and a missing societal consensus on how to handle digital media subsequently leaves young people to their own devices. Although mostly unsuccessful in challenging power imbalances, young people are no victims of their circumstances, but develop their own strategies largely based on individualised solutions to deal with the pressures they are confronted with.

I argue that young people's performance of independence from digital media is one such strategy to establish agency. Because of the continuous external scrutiny of their time spent online, showing that one does not need digital media is a direct response to addiction narratives and the medicalisation of these technologies. Seeking distance or creating detachment from digital media is commonly portrayed to prove that one can live without it, regardless of whether one manages

to remove themselves. The performed rejection of digital media also manifests in presenting emotional distance to digital memory objects. For example, young participants often stated that their digital memories were less important than those kept physically or cognitively. This performance of emotional distance has been scarcely discussed before, but is the key to understanding digital memory practices, since portraying such independence characterises digital memories as less valuable. Despite this seeming rejection the findings show that digital memories are important to young people, but are faced with the same ambiguity as digital media in general. While an intrinsic part of their personal memories and frequent expressions of nostalgia and emotional attachment during interviews, digital memory objects are contextualised within the imaginary of digital environments as less real or important. Therefore, we can conclude that the ways in which digital media are imagined play an important role in how memory practices are coming into existence. This imaginary is important in contextualising memory practices.

As other studies of digital memory practices have pointed out (e.g. Bareither 2021; Douglas 2017; Handyside and Ringrose 2017) digital memory practices are commonly centred around the individual but have more depth than meets the eye. While oftentimes criticised for being narcissistic, these practices mainly aim to communicate and connect to other people through personal experiences. As shown with the example of Instagram in Chapter 5, memories are strategically used to spark conversations with others, but also to mark larger historical events. Therefore, these practices also place the individual within broader collective memory. This research has uncovered that creating memories is often a collaborative activity, particularly when it comes to taking pictures. Meeting with others offline to take images in their spare time is a common youth activity. In addition, the importance of sending around images via private messenger services and creating shared memory folders emphasises that the networked character of contemporary memory making is going beyond what is seen on social media. When we look at the smartphone, it is evident that these devices not only hold memories of the owner but also personal memories sent by family and friends. These findings stress that digital memories are much broader than what happens on social media and deserving of more attention. Academic work on the role of devices has been very limited, yet the practices connected to them are rich and highlight the many layers of intimacy that exist through digital media. These layers are reflected in the choices of sharing memories with people through messengers, via social media or keeping them to ourselves. The wish to connect to others requires an assessment of how much intimacy is desired. However, posting on social media does not mean that intimacy is not present, as posting

publicly does not equal visibility to all, and is mainly done with friends and other peers in mind. Accordingly, digital memory practices are often collaborative and memory objects gain importance through social interaction.

Despite these shared activities, personal memory practices of young people are also important to them, because they initiate a deeper self-reflection. As shown in Chapter 6 memory practices are also ways of communicating a sense of identity and belonging. Like other works in this area (e.g. Leurs 2015) my contribution to the study of young people and digital media shows how identity-making is foregrounded through the usage of social media. The often-slandered *selfie* is ,in fact, an important object that helps young people to reminisce over their physical developments and changes in their lives over the years. Depictions of the self on social media should not be fully dismissed as a self-absorbed practice. Instead, the practice provides nuances as to how and why these images are posted. Posting about the self and personal experiences allows to connect to others and to build community, particularly for those who belong to minorities, marginalised or otherwise underrepresented groups.

In spite of participants' statements that digital memories often mean less to them, losing them was bemoaned and grieved. Making digital memories often requires work and a lot of thought. Particularly the curation and editing of images is a time-intensive process, which increases emotional attachments. Revisiting social media profiles, whether currently in active use or as archives of a younger self hold importance as they represent often extended periods of a person's life. Moreover, the periodical curation of images and other content on social media reframes memories for current needs. The findings also highlight, that digital memory objects are not simply digital versions of offline memories, but put these objects come into existence through unique practices constituted between a digital medium and people. However, the growing importance of digital memory practices does not lead to the replacement of analogue or offline practices.

On the contrary, offline memory practices are a way to oppose the omnipresence of digital media and remain a key part of how people make and keep memories. The emotional and ideological value for young people is a way to disconnect from the stresses that can be brought by digital media. Physical objects like stones, souvenirs, postcards or gifts from family and friends were often named as embodiments of important and cherished memories. In addition, as stated in Chapter 7, many participants had a reignited interest in analogue photography that was

accompanied by nostalgia for pre-digital times, which most had experienced only shortly or never consciously experienced at all. The process of analogue photography is appreciated exactly because it needs more care and time, as well as having more costs involved, which is framed as becoming more appreciative of taking photos in general. The taking of analogue photographs exists in parallel to digital photography – no participant had fully abandoned taking pictures with their phones. These analogue and digital practices fulfil different needs and intentions facilitating different ways to experience memory making. In addition, offline memories display a more intimate character as they offer more control over who, when and how memories can be seen by others. This contextualisation aids in differentiating motivations to make memories online or to avoid them. Furthermore, it demonstrates that imaginaries and cultural codes surrounding new technologies and connected practices are as important as the 'content' that is produced.

Digital memory assemblages – a co-production between young people and digital media

As elaborated in Chapter 2, the theoretical framework of this research is based on assemblage theory. Through this ontological approach, I have identified different human actors as well as related normative factors involved in memory making as part of a wider assemblage. The difficulty with applying assemblage thinking to research is that the assemblage can be thought endlessly. Nevertheless, certain elements of the assemblage were more pronounced than others. The graphic below is mapping out the elements I found most striking in the research and are of particular relevance to the research questions. Hence, this is a simplification of the assemblage that constitutes digital memory making.

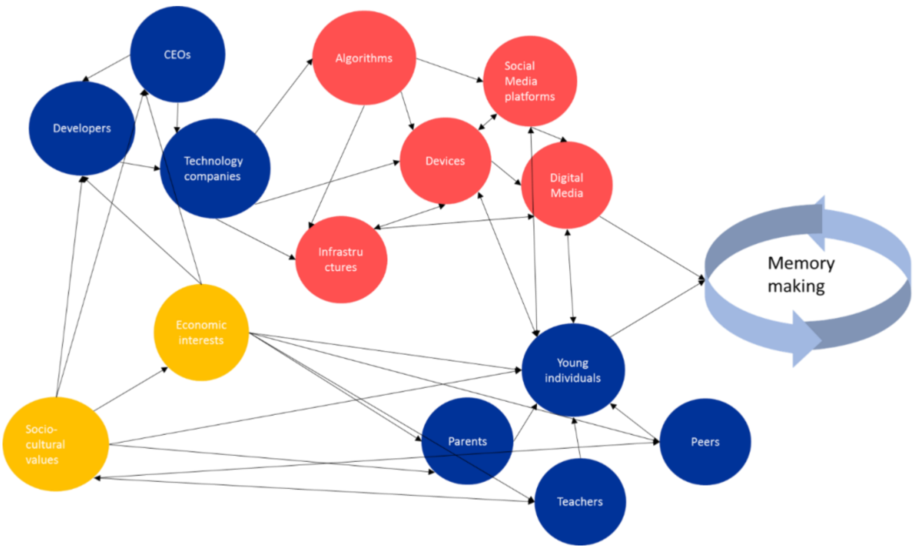

Figure 17: Memory assemblage showing actors involved in young people's memory making

The red-coloured circles illustrate non-human actors in the form of digital technologies, that are involved in young people's memory making and their relationship with each other. The blue circles represent human actors. This includes parents, peers and teachers in proximity to young people, but also the people who are behind the development of technologies that increasingly define people's everyday lives. I have included technology companies as human actors instead of classifying them as legal entities, emphasising the human component of how digital technologies are made. Instead of visualising every position held in a technology company that influences how digital technologies are created, I chose to represent visually the collective human labour and decision-making that goes into it as technology companies. Nevertheless, I have accentuated the position of developers and CEOs as they have prominent roles in making key decisions about how a technological product is put out on the market. While parents and teachers are also categorised as human actors like CEOs or developers, their differences are highlighted through the different relationships they have with young people and their placement in the assemblage. Humans on the side of technology companies have no direct connection to young people as parents and teachers do, but influence memory making through their relations to the technologies they produce, whose construction is motivated by creating profits. Thus, the assemblage does not represent hierarchical levels, but relationships that distinguish actors and their roles. The arrows are representing these relations. While there are power imbalances between these actors, I have chosen not to illustrate them in this graphic, but to rather emphasise broader relations. The yellow circles depict the normative elements of sociocultural values and economic interests. As the arrow between these two circles demonstrates sociocultural values shape and influence economic interests. Because

economic interests are so pronounced in the motivations of people working in technology companies, but also as a motivation for young people to share their memories online, I highlighted economic interests as an individual element. The arrows in the graphic highlight the relations between the different elements of the assemblage.

As the graphic shows, young people and their close networks are influenced by the societies they live in and their cultural expressions. Therefore, the ways memories are created and how digital media is interacted with and seen, are influenced by normativity. However, the same goes for the people who create technology as their biases shape how digital media is built to support memory making. Moreover, it is economic interests that will heavily influence such decisions in a profit-oriented capitalist society. The memory assemblage shown here is, like any assemblage in flux and constantly shifting as opposed to representing these processes in a stable system or a structure.

The assemblage's elements highlight the interplay of human and non-human actors that have young people's memory making as an outcome. These entanglements of human and machine activities make a separation between these spheres challenging. I would also argue that such separations are not helpful in understanding young people's practices. I am not the first to point out the *real-life* effects of technology (Fuchs 2014; Ajunwa 2016; Noble 2018; Eubanks 2019) and there is growing interest in this research area. The empirically based assemblage identified by this research further contributes to this argument. Nonetheless, a critical assessment of these effects should not fully dismiss human agency, although this agency is limited to the users, as impact that could remodel inequalities, lies mainly with the people responsible for making the technology. The findings of this research challenge both assumptions that technologies are doing something to people and remove human agency as well as that technologies are mere tools whose effects depend on how to use them. Furthermore, the assemblage also urges us to rethink technology, as both techno-deterministic and techno-solamnbul ideas often neglect that behind technologies stand ideologies, economic interests and most importantly people. While this is an established point in STS (e.g. Turkle 2005) this has rarely found attention in how memory scholars address digital media. Opposing Andrew Hoskins's (2017, 2013; 2016) argument that machines will do the remembering for us, I argue to rethink this paradigm and instead think of machines as remembering with us – a co-production between humans and machines. This proposal adds to Migowski and Fernandes' (2019) argument to see memory making as a co-creative process between social media platforms and users as it expands beyond social media. In addition, it aligns

with proposals to see technology as human-made and treat it as part of cultural expression (Seaver 2017, 2019). This point of view demystifies technology and goes beyond marketing jargon that distorts their actual character.

To understand the contemporary memory making of young people we need more than a platform-based focus. As demonstrated throughout the popularity of social media platforms comes and goes. Therefore, singular platforms are not reliable in characterising wider implications of the digital. Confirming Miller & Horst's (2012, p. 5) point that we need a broader understanding of digital media, beyond specific websites and applications. I have approached this research by looking at what young people do, instead of predetermining which social media or devices are important. This allowed me to explore, trace and follow the issue from the viewpoint of participants, which uncovered the interconnectedness between devices, storage issues and social media in memory making. By rooting the research approach in grounded theory, I was able to uncover the width and depth of digital memory practices. Without a doubt, the presence of digital media changes how we think of our memories and provides different capabilities in their production and subsequential preservation. For example, as described in Chapter 5, Instagram aesthetics influence young people's practices of memory making. Even when images do not end up on Instagram the aesthetics travel beyond it and instil a desire for ever higher quality akin to professional photography. Because young people learn what kind of images are appreciated online the way they take pictures, what they take pictures of and how they portray themselves in them are influenced by what they learned online. Therefore, what is considered important to remember and what is considered unimportant is changing. Furthermore, while memories used to be kept for personal reasons or to be passed on within families, today young people imagine an audience that might see their memories which changes their practices – including taking images, uploading and maintaining them. This audience goes beyond family and friends as it includes strangers or more abstract actors that might surveil one's activities like companies or the state. Moreover, the mental image of 'someone watching' also includes algorithms, whose existence and workings in the background are factored into practices. The findings have highlighted throughout the thesis, that digital affordances, designs, algorithms and embedded norms have a significant influence on how young people create, share and maintain personal memories. Although memory is implicit in digital media (Garde-Hansen 2011) it does not automatically enable personal memory making and can also hinder it.

The influence of technology companies on how we remember needs to be critically analysed when studying digital memory. While marketing terms like artificial intelligence, the cloud and platforms are important to understand the imaginary young people have of digital media, it is of equal importance to analyse these technologies beyond such jargon. This language feeds an imaginary of digital media as dematerialised and bodiless fostering further mystifications of these technologies that distract from their material conditions. It is significant, that despite the diverse and heterogeneous group of participants in this study their practices and the technologies involved in memory making are extremely similar. This points to the growing monopoly of certain technology companies, overwhelmingly GAFAM, as practices are intertwined with affordances. The technological oligarchy dominating the current digital ecosystem, thus morphs and restraints the diversity of digital memory practices as it reduces the ways in which memories can be created. These companies mainly design their technologies for profits rather than having people's needs in mind. This situation was emphasised in the findings by Meta's dominance over the platforms young people used, Google's foray into school education and the iPhone's popularity amongst participants. Furthermore, the focus on immediate communication, device obsolescence, data surveillance and development of new technologies for profit means that digital media are rarely designed with longevity in mind.

Young people's growing awareness of the mechanisms underlying their daily digital interactions also influences their memory practices. However, instead of fully circumventing the undesired effects of digital technologies on their lives, youth often reinforces the conditions set out by human and non-human elements of the assemblage. For example, the pressure to conform to a certain image on Instagram can motivate young people to share certain types of memories, but also discourages them from posting at all. It is at this point we can see Bourdieu's practice theory unfold as habitus reproduces "the regularities immanent in the objective conditions of the production of their generative principle" (Bourdieu 2013, 1977, p. 78). This alludes to how young people are often upholding or reinforcing the status quo instead of radically changing it (Berliner 2005a). Despite the limitations of digital memory making for many young people it is also simply fun and offers a way in which they can speak to others about themselves and their interests. The memory assemblage facilitates ways of communicating and expressing oneself that are of great importance to youth.

Digital memory modalities and the shifting of meaning

Literally speaking the ontological usage of modalities describes the modes and manners in which something exists. Hence, in its simplest form digital memory modalities describe the ways in which memory exists through digital media. I would like to expand the notion to modes in which knowledge of the past is mediated through digital technologies. Modalities also form media practices that in turn inform how young people make and preserve memories. I use memory modalities as a way to describe part of the assemblage that encapsulates digital infrastructures and the material limits of digital technologies. Based on the findings, I have identified three major modalities of young people's memory making online: modalities inherent to the *smartphone*, modalities found on *social media* and the modalities memory objects take on when stored, which I will call *storage units*. Due to their networked character, it is sometimes difficult to distinguish where a digital technology starts or ends. Most digital devices have several functions and multiple integrated features that enable memory making. Moreover, they are dependent on other connected devices like routers or internet servers to fulfil their capabilities. Instead of following technological classifications, I have categorised digital memory modalities based on how young people use them in their everyday. Hence, the laid-out modalities represent the identified practices and not the exact technological capabilities or possibilities.

As the findings highlight, young people use different digital devices for different tasks, although some activities overlap. While tablets, laptops, smartphones and desktop computers are all essentially computers, the findings have demonstrated the special role smartphones play in the everyday and memory making. Therefore, the smartphone represents a distinct modality, which enables other memory modalities, e.g. access to the cloud or Instagram. In addition, I have identified social media as the second modality, which differs from the other two mainly because of its semi-public character. As shown in Chapters 5 and 6, social media is a complex modality because several human and non-human actors are coming together in the memory making. When memory enters the modes of storage units it becomes rather passive. Because a storage unit can exist on any form of computer, whether a smartphone, tablet or laptop I believe that the term storage unit is more useful than demarcating specific devices. The term storage unit also allows to include storage that is not a personal device like cloud services who are garnering greater popularity. Hence, storage unit modalities can be placed on any type of computer, but also on external hard-drives, USB keys and cloud services for example Google Drive or iCloud. The

graphic below shows how these modalities are interacting.

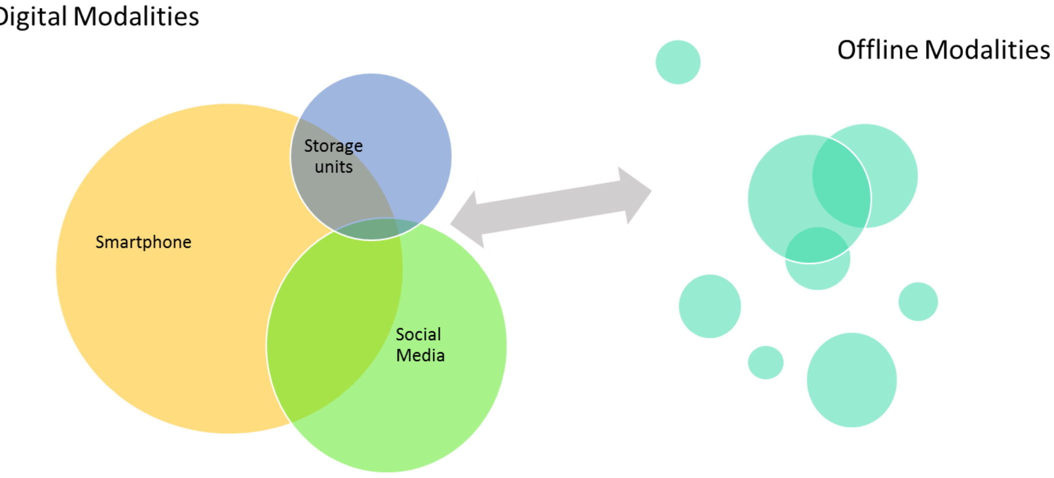

Figure 18: Relationship between digital modalities and offline modalities

I have enlarged the smartphone modality to point to its central status. The overlaps with the other two modalities show the connectedness between them. For example, when accessing a storage unit on a cloud service, access can be facilitated through a phone. Digital multiplicities allow memories to shift between different modalities, but also to take on several modalities simultaneously. Digital memory objects are frequently and easily moved from smartphones to storage units, from social media to phones and vice versa, and can exist in several digital 'places' simultaneously. When a memory object takes on a different modality it also displays certain characteristics and embodies different norms and power regimes inherent to the modality. As shown in the previous chapters, technology companies shape technologies mainly with their business goals in mind. Their influence also shapes how access to creating and sharing personal memories is regulated. In addition, the features they provide are essential in how digital memories are subsequently maintained. For example, keeping a personal external hard drive is a personal responsibility, which requires a person to remember to frequently back up data and to take care of its physical integrity. When using cloud services, a person has to agree to the terms and conditions of the company providing the service, but in turn does not have to worry about damage to their data or keeping it updated, since the company takes care of it. Accordingly, digital memory modalities are also expressions of internet governance and enable or hinder access to knowledge of the past and how it is shared.

In addition to these three digital modalities, young people have also brought up several non-digital modes of remembering, that I have called 'offline modalities'. Although offline modalities are as important to young people's personal memory making as digital ones, I will speak only shortly about them as they are not core to this study. Nevertheless, I chose to include them in the graphic to demonstrate their relationship to digital modes of memory making. There are different types of offline modalities e.g. diaries, photographs, photo albums, postcards, magnets, stones, paintings and many more. However, they are more dispersed and independent from each other than digital ones. Digital and offline modes stand in relation to each other. Not only are physical mnemonic aids mimicked through digital media, for example using Instagram as a visual diary, but offline memories are also being digitised. On the flip side, digital memory objects are entering offline modalities when for example an image is printed. Choosing which memory modality to use is orientated around emotional, economic and social needs that are stratified based on intimacy levels afforded by digital media. What these intimacy levels encompass is subjective, but is also informed by internalised norms and morals.

Typology of young people's memory practices

One of the contributions this study makes to studying digital memory is a detailed overview of contemporary memory practices and the contexts in which they exist. It also highlights the duality of memory practices as a form of preservation and a means of direct communication and engagement with others (van Dijck 2008; Sommer 2018). As Nick Couldry cautioned in his theory on media practices (2004), I did not set out to find every variation of the media practices intertwined with young people's memory practices, but instead, I aimed at identifying a range of practices commonly used by young people. I want to restate shortly the original research question of "What are young people's practices of creating, sharing, accessing and maintaining memories in connection to digital media?" Using the findings, I have reassessed the question and found that accessing did not provide distinct practices, but is rather a structural matter. Unless data has been irreparably damaged or an account was suspended, access to personal memory is less problematic in young people's everyday practices. Lost access to accounts or storage units can usually be reinstated by asking for a new password or replacing a device. However, it becomes an issue when it comes to passing on their memories to others as will be discussed later in this section. On a daily basis, access is rarely disturbed and the growing affordability of smartphones and other devices rarely excludes young people from digital participation. The emerging common characteristics

related to creating, sharing and maintaining have been developed into a typology that also aims to categorise the practices' main features.

Based on the findings I have identified three main practices: practices of creation, practices of sharing and practices of maintenance that are reaching over several digital modalities, namely the smartphone, social media and storage units. Although offline modalities are important, I will not discuss them at this point, as they would broaden the scope of this research too far. Therefore, I will only discuss the practices connected to the smartphone, social media and storage unit modalities. Apart from utilising different material affordances, the three modalities also correspond to different degrees of intimacy levels. I have chosen to express these as low/moderate to signify a scale of the levels of low to moderate and high as these levels can have different shades within a single modality. These intimacy levels derive from the descriptions of my participants regarding their practices on the devices and platforms involved in them. For example, when speaking about the images on their phones, participants would state that these memories are often too intimate or private to be shown to people they do not know well. Hence, I have categorised smartphone modalities as producing high levels of intimacy with digital memory objects. Social media, on the other hand, required a less intimate relationship and meant that participants felt more at ease with other people seeing those memories. Therefore, depending on the purpose or reasoning behind creating or sharing memories on digital media, the intimacy level was low or moderate, but was never described as too intimate to be potentially widely shared. The graphic below describes the practices aligned with the corresponding intimacy levels and modalities.

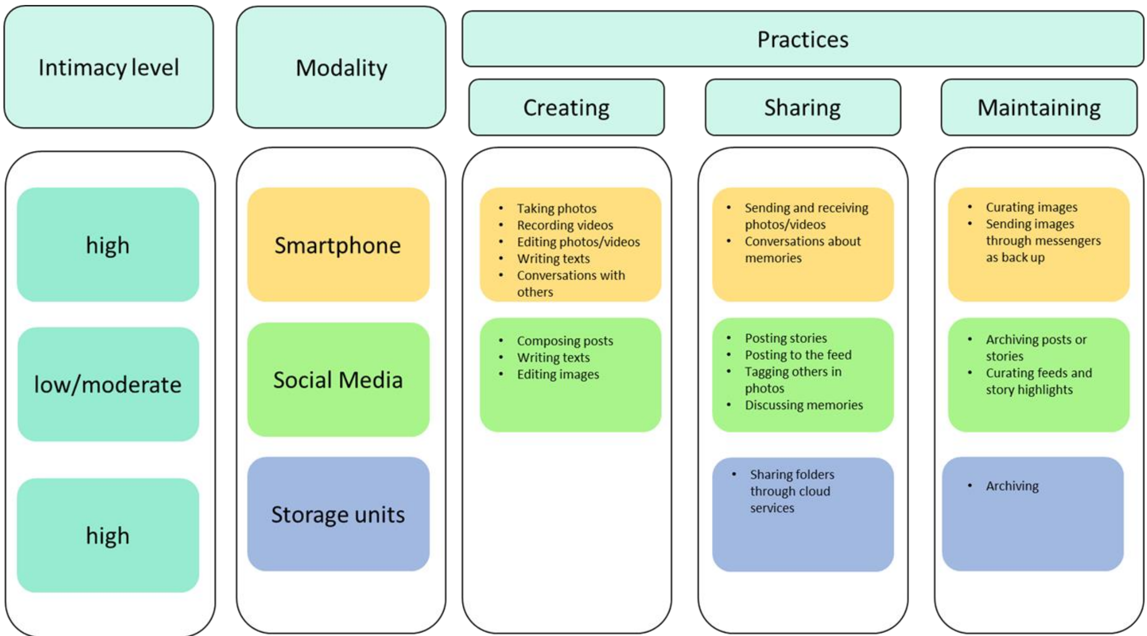

Figure 19: Typology of young people's memory practices

It is important to note that, although the practices in the diagram are visualised separately, they are always interconnected. However, I chose to depict these memory practices individually to be able to discuss them in detail. Creating, sharing and maintaining are interconnected practices and are primarily based on each other. Furthermore, while the modalities are portrayed as disconnected from each other, memories also move between them as described in the previous section. For instance, a picture can be created with Instagram in mind, shared on it and eventually maintained for the near future on the same platform. Below I will describe practices of creating, sharing and maintaining in more detail.

Practices of Creating

The creation of memories in connection to digital media takes on various shapes and forms. These practices are conducted most of the time by an individual but can also involve the participation of others. While these practices can be highly performative, especially when intended for a wider audience, they can also reflect intimacy. The practices also emphasise that the sharing of memories on social media is often already thought of when photos are taken. I have not included the storage units in the practices of creating. Although memory objects from storage units can be repurposed to make new memories they do not create them.

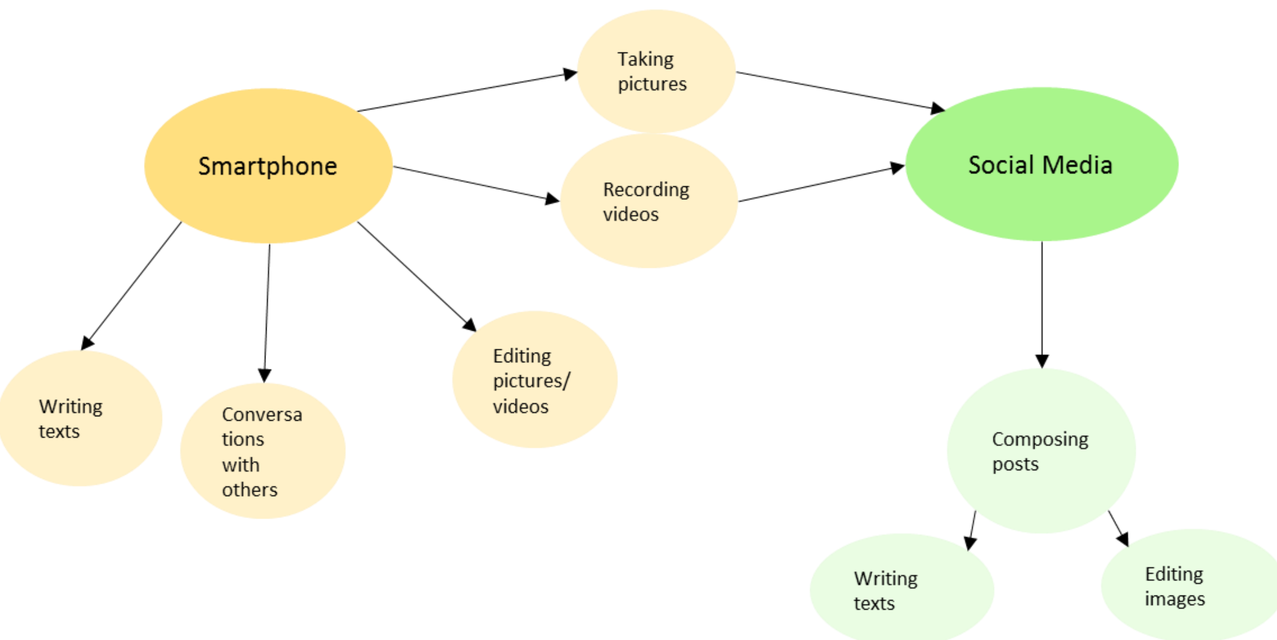

Figure 20: Practices of creating

As the graph shows, practices that are constituted by the smartphone like taking pictures, recording and editing them are directly enabling practices on social media. Although photos can also be taken straight through a social media app, it is still the smartphone's camera that is used. Furthermore, while social media platforms can also be accessed through browsers on PCs, many features are only available when using smartphone applications stressing the relationship between these two modalities. Creating digital memories is an interplay of different applications located on the smartphone. There are several applications that are used for video/photo editing and writing texts as well as the facilitation of conversations.

Creating memories is also fun for young people as they can express themselves and experiment with new ways to edit and manipulate images or videos. Particularly, filters on social media apps and the addition of augmented reality effects provide ways new ways of creative expression. Moreover, as the findings illustrate creating memories digitally can change their appearance as new features are added to social media and new apps are made available to edit images. For example, the emergence of TikTok and Instagram's adaptation of reels has created a new form of media practices in the form of short videos that are accompanied by music and texts often following a certain sequence that is currently popular on the platform which creates new genres.

Despite its potential, not everything that is digitally created or recorded becomes a memory as well. For example, conversations with others through messenger services, which happen daily, only become memory when they are revisited for example when the conversation partner had died or a relationship or friendship has ended.

Practices of sharing

Which memories are kept for the self and which are shared depends on the intentions someone has for sharing. Therefore, practices of sharing generally have a certain audience in mind usually family members, friends or the wider public. It is these practices where intimacy levels come into play. The need to manage intimacy when sharing distinguishes these practices the most from those of creating and maintaining. Although a certain audience is anticipated, for the memory holder it remains difficult to predict who exactly can see their memories. Participants commented several times, that they could never be sure who viewed their photos or messages on social media and their phones, because of the surveillance of their activities through the companies building these technologies or maybe even the state. Moreover, young people were also concerned about other people taking their information and misusing them for unwanted purposes. Hence, a certain insecurity and vulnerability result from practices of sharing. Accordingly, the presence of unknown actors requires a more thought-through and calculated behaviour than practices of creating or those of maintaining.

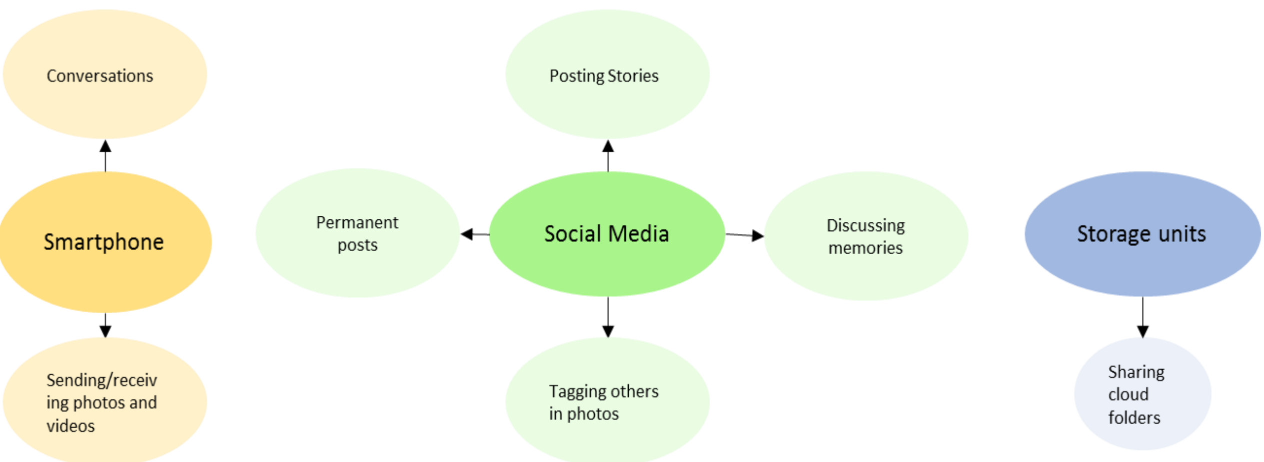

Figure 21: Practices of sharing

On the smartphone, memories are made through conversations. In addition, these conversations or

chats include pictures and videos that are sent into group conversations or between two individuals. Therefore, smartphones usually hold personal memories of several people commonly of people that have close relationships with each other. On social media, the digital memory objects that are shared through posting permanent posts or stories can also be limited to a smaller group of people, as privacy features have been introduced that can reduce the visibility to a view selected people before posting. However, such limited sharing is often not desired by young people as they aim to, at least partly, reach out to people one does not know yet. Social media allows speaking about memory objects and telling elaborate stories about them. For example, people who were present at an event can be tagged and thus included in the memory. Particularly, posting through the stories feature on Instagram are often direct invitations to speak about an event or one's past, as the posting of childhood pictures has shown. These practices also function as ways of commemoration as discussed in Chapter 5 or direct representations of kinship and one's 'roots' as illustrated in Chapter 6. The modalities of social media thus foster these direct exchanges and the building of collective memory. Discussing certain events and memory objects creates attachment to them. The sharing through shared folders facilitated by cloud services on the other hand, serves to build more intimate group exchanges whose main purpose is to make digital memory objects accessible to people close to a person.

Practices of Maintaining

Practices of maintaining are concerned with preserving personal memories and ensuring future accessibility, mainly for the self. Practices of maintaining reshuffle memories and put them into new contexts, which are modality specific. However, these practices are often improvised and unstable as they highlight the challenges of maintaining digital memory on an individual basis. In addition, practices of maintaining show the need for a wide and complex infrastructure to keep personal files readable as well as manageable.

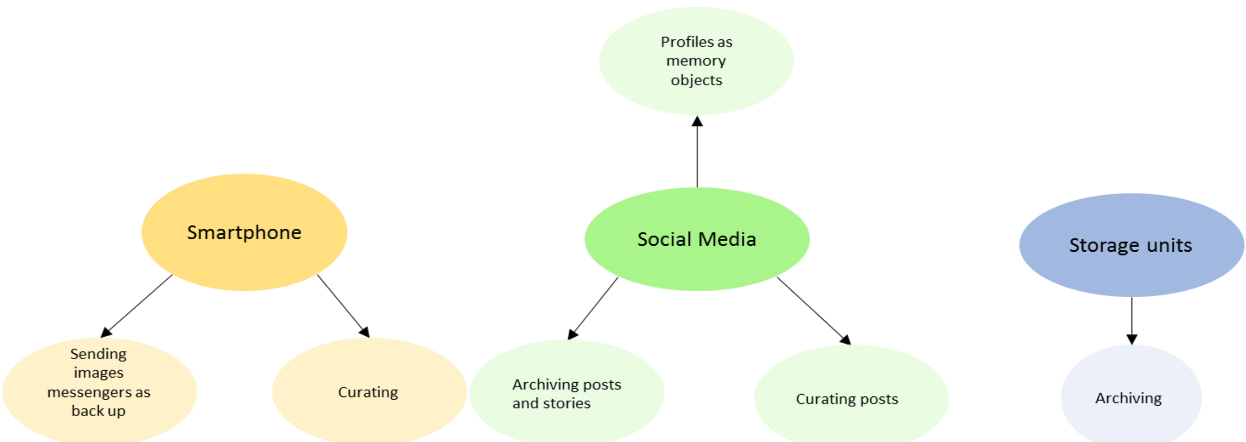

Figure 22: Practices of maintaining

Because smartphones are frequently changed over the span of a few years, they are rarely seen as the final destination for digital memory objects. Therefore, I do not speak of archiving or preservation practices in relation to images or videos on the smartphone. Furthermore, while the curation of digital memory objects on the phone happens, it is mainly done in response to the storage capacity of the device. Curation in this regard happens occasionally and focuses on the deletion of files that are no longer needed, rather than curating photo albums or a photo series. Curation is more of a response to limited storage and is practised to separate important from unimportant memories. Young participants frequently spoke of the messiness of images and videos on their smartphones and they were mostly unaware of what exactly was saved. Therefore, important files were also sent to themselves through messengers as the storage of the service seemed more reliable than the phone.

As demonstrated in Chapter 6 of the thesis, social media profiles themselves, function as memory objects and are kept for that purpose, even if a person is no longer posting or otherwise actively engaging on it. Practices of maintaining mainly involve the curation of what was posted in the past. Therefore, older entries are deleted or people untagged with whom one has lost touch. Practices of maintaining also serve to harmonise representations of the self. These practices highlight that memory is more than just about the past, but is also concerned with the present (how one is seen now) and the future (how one could be seen). In addition, the archiving functions on Instagram offer an additional repository for young people's memories. Particularly, because all the other information like comments, likes and geotagging can be kept which would be lost when removed from the platform.

Practices of maintaining using storage units are mainly concerned with archiving memories and are a central way of keeping digital memories for the future. Storage units function as backups and accumulate a wide range of memories over the years. Although they are less frequently revisited than memories on smartphones or social media they usually represent them in greater quantity. These storages were only occasionally interacted with, but are central to practices of maintaining as young people hold greater trust in their ability to safeguard their memories for them. However, the high loads of data also mean that their management is difficult for an individual. Deletion and curation of memory, thus, rarely happens as a practice in relation to storage units.

The practices of maintaining also involve a constant moving of data and memory. Therefore, it is rather an act of maintaining than preserving indefinitely. The need to create several back-ups shows the fear of a loss of information. Moving images from phones to social media, from external storage to the phone or from social media to storage, creates several copies of one memory object – shifting their attributes and possibilities of communication. Most participants had lost their phone at some point, broken it, lost their social media account or had broken internal and external hard drives that held memories. Losing memories in the form of data, thus, happens regularly. Furthermore, when a device is discarded or needs to be replaced several steps are usually involved in assuring that data not will be lost. Practices of maintaining in particular, point to the fragility of digital memories that is rarely discussed in works on mediated memories. Instead, the literature pre-dominantly cautions of a time when forgetting is no longer possible (Mayer-Schönberger 2009; Esposito 2013; Hoskins 2013) an everlasting quality to data. However, as discovered through fieldwork, there is a strong contradiction between the belief that the internet does not forget and young people's memory practices, which are often concerned with the loss of precious images or other data that represents memories for them.

Despite the immaterial conception of digital media, the findings have shown that digital memory objects suffer from a specific fragility and create unique challenges to their preservation. This material understanding highlights where future challenges for memory making might arise as they are currently unfolding. While memory scholars have more recently argued that the capability to 'save everything' does not equal memory the material conditions of digital forgetting have rarely been discussed and were until now mainly addressed by computer scientists (Zittrain 2021). The practices of maintaining uncovered in the typology need to understand the material limits of these technologies as well if we want to understand how memory is changing. *The end of decay time* as

Hoskins (2013) states might be just an illusion that is built by technology companies themselves to profit from making their technologies appear robust and reliable. Looking at the young history of the internet we can further see, that most websites come and go with their waxing and waning popularity. How well young people's memories can be preserved on social media platforms is yet to be seen. Therefore, the findings contribute a new angle to what might happen to people's digital memory objects in the long term.

The typology shows a variety of practices that are interconnected. Most works in the literature have looked at a specific practice (e.g. the taking of selfies at memorial sites) in isolated ways mainly highlighting parts of sharing digital memories and the circumstances in, which they are created. Linking these practices to each other in an organised typology is a contribution to the pre-existing literature. In addition, the typology shows the diversity of practices and different modalities through which these practices are coming into existence. I argue that the interplay of several practices offers a way to demarcate recording from digital memory making. Practices are constrained or enabled by social conventions, memory modalities and digital technologies. Young people's practices navigate around them and are shaped by these factors. Digital memories often require a lot of creative work when they are made need various considerations and require long-term management so that they can be maintained and remain usable. The resulting practices are what eventually allows the reminiscing and sharing of experiences that make memories valuable. In addition, digital memory practices fulfil various emotional needs that were highlighted through the Covid-19 pandemic as loneliness and reminiscing about the past in an uncertain time provided solace and connection to others.

Emerging from the typology is a fourth form of practice, that concerns the passing on of memory. As elaborated, the practices of maintaining and keeping digital memories for the future entail several hurdles. These are stressed when it comes to passing on memories to family, friends, other future kinship members and society in general. Previously, physical artefacts could be easily handed down to the following generation. Digital memories, however, require access to passwords and rely on complex infrastructures as well as certain data formats to be passed down. A change of formats or the disappearance of specific social media platforms could result in the loss of such memories. Furthermore, as mentioned before devices frequently break and data cannot always be recovered as well as planned device obsolescence, making the passing on of digital memories equally challenging. As the practices of maintenance highlight, data and thus memory has to

continuously be transferred to a new device or storage unit to keep them accessible. Therefore, questions about future access to memories arise. While not central to the research question, questions about practices of passing on have emerged through the losses of digital memories young people have experienced. However, young people have for the most part not started to think about the long-term preservation of memories, therefore, the findings were inconclusive on how these practices look in detail. The growing amount of digital memory objects not only challenges young people's management of them but also implies a need for growing storage capacities over the years to come. Therefore, certain vulnerabilities of digital memory making are already showing.

Conclusion

Although representing many nuances and diversity of personal views, there were mainly similarities in how participants used digital technologies for memory making. Most interestingly, the findings have shown the relation between young people's status in society shapes their responses to digital media. Contemporary digital memory practices are more than digitised replications of offline practices. The co-production of memory between people and technology is at the core of contemporary memory practices of young people. Digital media can evoke strong emotional connections just as any other memory object. Due to the complexity of the digital memory assemblage, the typology presented in this chapter aims to provide a framework for future research on young people and memory and to contribute to a more encompassing understanding of digital memory.

Taking a holistic approach to digital media can uncover the many elements that are connected and necessary to exercise contemporary memory practices. This research particularly contributed to the role of devices and issues of preserving digital memories for personal needs, but also for future generations. Young people's knowledge about digital media is growing as their lives are becoming ever-more intertwined with it. Nevertheless, the knowledge about issues surrounding these technologies does not directly translate into action to demand technologies that better serve their needs. As addressed before, the apparent grip over technologies by a few actors feels overwhelming and imagining alternatives has been dampened by these power imbalances. Looking at the history of the internet we can see, that most platforms have experienced a turning point and become dormant. It is not unlikely that new platforms will pop up in the future or that people migrate from these platforms to new and more popular ones. However, the current situation

is more complex. While such a shift might be detrimental to the memories young people have made online, the disappearance of a platform is unlikely to break the dominance of certain companies. Meta for example has already branched out into other applications and services that made them less reliable on their flagship platform Facebook. The mechanisms go beyond a few platforms and are more infrastructural. Therefore, in order to anticipate the effects of digital media on memory we need to broaden our attention to these mechanisms in future research.

Conclusion

I began this research with the objective to understand how young people's personal relationship with digital media affects their memory making practices. By choosing an ethnographic approach, I was able to reveal underlying tensions resulting from young people's societal role as *people of becoming*. The ethnographic findings highlight that despite digital media's presence in everyday life and its growing mundaneness, uncertainties about its effects on people are still on people's minds. These concerns appear to be increasing rather than decreasing as digital media expands into more areas of everyday life.

Although the memory practices of young people have found little attention in the literature on memory so far, as discussed in Chapter 1, this research has shown the importance and distinct contribution young people make to collective remembering. Using assemblage theory, this research was able to map out the relations that are influencing young people's memories. Without a doubt, technological actors, while not having a consciousness affect and shape young people's behaviour as they enable and hinder their personal memory practices. The most prominent example in this study was the role of algorithms that highlights that dispersed human and non-human actors do not need to be in connection or direct engagement to affect individual practices.

As I draw this thesis to a close, I would like to reflect on the results and the ethnographic approach that I have taken. I will discuss how my participants' experiences and opinions could give new impulses into envisioning digital memory that serves the needs of young people. Furthermore, practices found through this research highlight the challenges of digital remembering and forgetting, but also the strategies that young people develop to cope with them. By summarising these challenges in this chapter, I aim to highlight how young people's practices point us to various issues within the current digital ecosystem. To end this thesis I will discuss the limitations of the research and make recommendations for future research.

Youth and digital memory practices

There were several answers to the initial research questions of how young people's practices of creating, sharing, accessing and maintaining memories are shaped by digital media. As laid out in Chapter 8, the co-creative process between humans and machines is intricate and includes hidden

elements that shape digital memory making in the background. Uncovering these mostly technical elements requires thinking of digital technologies beyond their specific technical modifications and rethinking them as culture. When we think of certain technologies such as algorithms as culture, anthropological methods can uncover these hidden actors, as Nick Seaver (Seaver 2017) also argues. The methodological choices made for this study were able to expose some of these hidden actors. Due to the flexible approach to digital media and the usage of visual and participative methods, I was able to follow young people in their practices. 'Following' (Marcus 2011) my participants grounded my research in their experiences, from where I built on concepts of mediated memory. By focusing on the relations young people had to digital media rather than group belonging or locality (Feldman 2011), I was able to avoid preconceived notions of which digital platforms or practices might be important and was led by my participants' everyday activities. Working with such a wide and relational approach to ethnography breaks with traditional notions of 'being' in the field.

Investigating different ways of collecting data and integrating different materials, such as images and films created in the workshop, further contextualised the processes behind making memories digitally and their meanings. These materials also stressed the central role of digital photography in young people's memory practices. Nevertheless, the limits of participatory approaches were quickly reached. Not only because of the outbreak of Covid-19, which made participatory work difficult to realise in person, but also because the divide between researcher and participants is difficult to break. My position as an older individual and a researcher affected how participants of any age-related to me – often perceiving me as an authority figure.

I went into the field seeing young people as important contributors to culture and memory making, looking beyond their vulnerabilities in terms of digital media. Digital media has many important functions in young people's daily activities (Chapter 4). As highlighted, digital media has many positive, but also negative connotations among youth. Whereas the positive ones are attributed to the technology's capabilities to communicate and disseminate information, negative effects are mainly ascribed to a dependence on technology that supposedly interferes with young people's healthy development. Pathologising digital media and placing addiction narratives as personal failures are unhelpful in challenging effects that do not lie in the public interest. Although the role of big technology companies is known (Chapters 5 and 7), their products are still introduced to children early on as exemplified by the usage of Google products in the classroom setting (Chapter

4). The introduction of proprietary and often problematic (especially in terms of data protection and privacy) digital services emphasises ambiguities about how young people should engage with digital media. As this research has shown, technologies are conceptualised and subject to moralisation (Chapters 4, 5 and 6). As the example of social media stresses, digital platforms are not a medium void of cultural, social and moral norms. On the contrary, young people need to navigate various social rules when they want to post their memories. Different platforms also have different moral codes that are highlighted by their media ideologies (Chapter 5). The thesis demonstrated throughout that digital memories are important and emotionally valuable objects that are not of lesser importance for young people than physical memories.

Addressing the research through an assemblage lens magnified both technological hindrances and those placed by other people and social conventions. Hence, digital personal memories are shaped by what is accepted and which forms of self-expression provide social benefits (Chapters 5, 6 and 7). Young people's strong interest in sharing their personal memories has been highlighted throughout. Furthermore, their specific experiences of challenging times, including the Covid-19 pandemic, show how their practices shape new ways of collective remembering as well as modes to connect with others and express themselves. Like with other aspects of digital media that dominate everyday life, having a digital presence is a prerequisite for many young people today. The moralisation of such identity performances, often judged as vanity and self-centredness, misses the changed demands they face in building career prospects and new ways of socialising. Young people have much at stake, when it comes to getting these identity performances 'right' and spend a lot of work, thought and revision into making sure others remember the 'right' things about them (Chapter 6). Using pre-existing memory objects to build a cohesive narrative about the self is a crucial practice. Moreover, the curation involved in building such a narrative also highlights the importance of deleting personal information in an attempt to forget.

Notions of 'the internet doesn't forget' operate under the assumption that: "Forgetting, as in the natural erosion of the past, is, at least not in theory, offered by digital technology. We may think of material on the web, blogs, comments, status updates on Facebook, etc. as in some ways ephemeral." (Gudmundsdottir 2017, p. 76). These theoretical assertions look different in practice (Chapter 7). While deletion and forgetting are not the same, from a personal perspective they have a similar function. Furthermore, forgetting might occur after deletion, as the frameworks in which this memory existed are broken. The materialistic view that pits physical against virtual decay

neglects that data decay and digital media are also subject to natural or better physical erosion that happens quite frequently. This mostly occurs when old data formats can no longer be read at some point. Indeed, the ever-changing internet landscape makes questions of what happens to our digital memories urgent. Ensuring that images on Facebook or Instagram can be preserved and accessed for generations to come is a difficult task. Creating and sharing memories in the now for immediate communication makes their preservation less of a priority. However, young people have already experienced such losses of digital memory objects in their lives. Whether physical or digital, memories are always subject to potential loss (Chapter 7). Digital memories, however, are embedded within intricate infrastructures that are increasingly centralised and monopolised by a few companies. This adds not only to the power of these companies and our dependence on their services but also increases vulnerabilities to the preservation of memory objects.

Young people's memory practices and possible digital futures

As shown throughout the thesis, young people appreciate the possibilities that digital media offers them. Particularly the speed and convenience it provides in communicating with peers, staying informed, meeting new people and learning something new as well as the creative means to perform identities. Building a digital presence is important to navigate online space but is also increasingly important for purposes outside of digital cultures. Hence, youth have increasing needs concerning digital interactions. The obstacles faced to fulfil these needs have been highlighted especially in Chapters 5 and 6. These challenges predominantly occurred when young people's personal needs clashed with digital affordances e.g. gatekeeping algorithms, but also social norms that are embedded and reproduced through digital media. Nevertheless, the frustrations young people experience could also be used to envision a more human-centred rather than profit-oriented digital ecosystem, that promotes participation instead of an environment built on the competition for attention and visibility. The participants of this study have often voiced wishes and ideas that could contribute to such a reshuffling of digital media.

As outlined in Chapter 4, young people are very aware of several negatively attributed aspects of digital media, like decreasing attention spans, mental health issues or presumably self-centred behaviour. Young participants' wishes and ideas for improvement were centred around friendlier and more pleasant social interactions on social media. The addition of new features or new technological advances was of lesser importance to them. Technology companies' proposals to offer new digital experiences and products, like the Metaverse as presented by Mark Zuckerberg,

appear far removed from young people's needs and everyday realities. In their proposals for improvements, participants wanted to curb online social behaviour that they viewed as harmful, like bullying, hate speech, sexual harassment and the spread of misinformation. The ability to walk around with avatars in a digital space, as proposed by the Metaverse, that could also create new forms of anti-social behaviour, was not a priority for participants. Instead, their wishes reflected basic human desires such as connecting to other people and learning new things. However, participants also mentioned, that they struggled to imagine any change, due to their powerlessness in these matters. Participants often discredited their own ideas as unrealistic or impossible. Only after encouraging them to think as 'utopian' as they wanted to, would most start to relate their ideas.

Youth are often not taken seriously because of their age, but the power imbalances they experience through digital interactions was attributed to the seemingly insurmountable power of technology companies. The feeling that one was not able to challenge the status quo stalled the imagination of alternative digital futures. The disempowerment of young people reflects the growing abyss between what users wish for and the agendas of technology companies. Increasingly, the effects of monopolised digital infrastructures are felt in people's everyday lives, as issues like data exploitation become more known, but a change to alternative services is often not possible. The issues surrounding digital memory illustrate these challenges to change to alternatives, as personal memories cannot be carried from one modality to another without losing their context and some of their meanings. A potential loss of personal memories and emotional attachments results in hesitations to leave certain social media platforms. Although, obstacles to finding alternative digital futures are greater than people's disillusionment and lack of imagination, civic engagement and finding ways to give people a chance to shape the technologies, which affect their personal lives, is an important step in challenging current power structures.

This research reflects the importance of practices in how we see the world and how the social apparatus is constantly reproduced instead of being broken. For example, young people in this study have already started to worry about the impact of digital media on the next generation, reproducing the fears over the influence of new technologies on young people's malleable minds. Despite this social reproduction, young participants have also portrayed ingenuity in their attempts to break barriers and work their way around the obstacles they encounter. Hence, the frustrations young people experience with the digital status quo could be used as a starting point to rebuild digital futures. While civic engagement is required to realise changes, a fundamental rethinking of

digital technology as a cultural product is needed. To paraphrase the words of my participant Ben (26 y/o) technology holds a mirror up to society. Many issues surrounding digital media are amplified by it, but not necessarily caused by it. Hence, the negative effects people experience through digital media cannot be fully eliminated through technological fixes and neither can long-standing institutional and structural societal issues and inequalities be resolved by inventing new technologies. For memory, this also means that applying digital media to memory institutions to increase public engagement is not a silver bullet to democratising these institutions. From the outset of the internet's surfacing as a mass medium policymakers, GLAM professionals and academics have frequently fallen victim to the lure of digital media's democratising qualities. However, academics in particular should be cautious not to fall for the marketing lingua of technology companies when researching digital technologies – since history has shown that the implied promises are often not met. Since this research project started three and a half years ago, an array of newly proclaimed innovations that promise to 'revolutionise' digital media have sprung up - most notably web 3.0, NFTs and the 'Metaverse'. Particularly, the decentralised web 3.0 has been promoted as a way to break the overwhelming grip of a few companies.

Similar to the notion of web 2.0, what web 3.0 means in practice remains nebulous. However, it is often connected to blockchain technologies, NFTs and cryptocurrencies that see decentralisation and personal responsibility as a way to break with monopolies and give people ownership over their data and improve privacy under this new internet architecture (Alabdulwahhab 2018). While these trends and terms are important in contextualising the evolving imaginary around them, it is important for scholars to maintain a critical perspective towards them. Because proposed technological solutions frequently emerge and disappear, running after them is not only tiring, but also misses to deepen our understanding of what 'the digital' actually is. The holistic and relational approach of this study has strengthened the argument that much of the discourse around digital media distracts from how these technologies actually play out in everyday life. This research has shown, that the effects of technologies often do not play out as intended and are unfolding in more complex ways than anticipated.

On the one hand, young people are supposed to be 'experts' in using digital media and on the other hand, they are framed as vulnerable and in need of protection from these technologies. Nevertheless, young people rarely receive guidance on how to deal with the issues they encounter, like online bullying, information overload or propagated beauty standards. Instead, punishment

and encouragement for self-moderation are often imposed by older generations as a way to manage these issues (Chapter 4). However, young people have little control over the content they consume online and over how to manage their time online, as they often spend more time in front of screens than they would like to. Many participants, particularly those aged 19-27 wished for better education in school about issues they encounter in their digital interactions. Many felt that they were only taught how to use a computer and certain software, but not how to engage critically with the social frictions and content encountered online. Thus, surveilling online behaviour was seen as insufficient by many and instead young participants wished for being provided with the tools to navigate their daily digital usages. As Louise said, "Well, this won't change in the future. It will stay this way that the youth grows up with it. I don't think digital media will go anywhere anytime soon."[84] As demonstrated throughout, social media is an important part of young people's lives that they can hardly circumvent. Teaching children from an early age how to engage responsibly with digital media as a social skill was proposed by several participants as a solution to these challenges, rather than a full removal of these technologies from their lives. In practice, it is not possible for most young people to 'just stop' using social media or to not touch their phones ever again. Instead, negative effects go back to structural problems that affect society as a whole.

Humans are not mere victims of machines. Not only are technologies created by people, but as demonstrated through the accounts of the participants of this study, people do develop strategies to counteract effects. Whether these are efficient or not is another matter (Chapters 5, 6 and 7). Nevertheless, the strategies show the potential for reshaping the digital ecosystem from its current state. The strategies that young people have developed are important, because they highlight complex issues that go beyond victimising or patronising youth over their digital activities. It might be tempting to claim that looking at young people's practices can tell us about how the future of memory making will unfold. However, as the findings have shown, digital memory practices are in constant motion and the speed of change is exhilarated through technological developments. During the course of their lives, young people have already changed and adapted their memory practices several times, often as a response to the occurrence or disappearance of digital features. Nevertheless, we can identify certain issues that are likely to be of importance for the near future. Firstly, issues of data ownership that are linked to uploading and making personal

[84] Interviewed on 27/05/2020. Translated from German: "Also, es wird sich nicht ändern in Zukunft. Es wird so bleiben, dass die Jugend damit aufwächst.

memories on privately owned social media platforms are likely to remain. As long as the advertisement-based digital economy remains, data exploitation presents a lucrative revenue for technology companies that clashes with people's personal interests and rights. Secondly, the preservation and transfer of digital memories to others face difficulties. As shown in Chapter 7, losses of digital memory objects frequently occur mainly because devices break, are stolen or are lost. Moreover, a loss can also occur when people are locked out or suspended from their social media accounts (Chapter 5). Because accounts are personalised and need a high security to prevent misuse, passing on memories made on a platform can be difficult, when the other person does not have authorisation. Nevertheless, it is important to also acknowledge that offline memory practices are not disappearing. While they are often linked to digital practices, they often serve as a more reliable mode of remembering. Contemporary memory practices are interlaced with each other as memories traverse between offline to online modalities and vice versa.

As seen with the removal of facial recognition from Facebook at the end of 2021, technology companies add and remove features to their liking. Understanding the motivations of these actors could provide more insights into how digital media affects our memory making. For example, the introduction of the archiving function of Instagram stories has heavily influenced young people's practices on the platform. As long as business and public relations interests drive technology companies' motivations and not the preservation of memories and the fulfilment of people's needs it is difficult to predict how memory practices will look exactly even a few years or months in the future. Young people today live in times of many complex challenges. Digital media practices are intertwined with larger societal shifts, for example, an increasing focus on individualisation and growing precarity on the labour market put pressure to 'brand' and promote the self online. In addition, the looming climate crisis presents growing issues on how to produce sustainable energy that is needed to power digital infrastructures like data centres that need to accommodate the increased demands for data storage. All these factors will influence which forms of memory practices will occur in the future.

Contribution to the study of digital memory

This study provides new empirical insights into young people's memory practices. As Chapter 1 has outlined, much has been written on how digital media affects memory, but little is empirically founded and based on the everyday lives of ordinary people. My research has shown how young

people as 'memory makers' contribute to collective memory and the development of new practices surrounding them. Young people show a lot of ingenuity in how to express themselves online, but also face obstacles in securing their memories for the future. These have been so far, little discussed in the literature. In addition, the study contributes to the understanding of wider digital ecologies and how they influence everyday life. While such theoretical discussions are important to develop frameworks to articulate changes driven by digital technologies, they neglect these changes are unfolding practically. For one, I have added the less discussed aspect of the social positioning of digital devices. This holistic view of young people's contemporary digital memory practices also considered their offline activities as well as the role that digital devices play in them.

The typology that I developed is aimed to be a basis for other scholars working in this area, as such a categorisation of practices has so far been missing. Apart from its value for academic research, I hope that the typology and the research, in general, will also be useful to people in other fields. Most notably educators and practitioners in the GLAM sector who are working with young people. Furthermore, I hope the discussions and findings of this research will also find application in fields concerned with data protection, as young people's data remains very vulnerable to misuse.

Limitations of the study and recommendations for future research

While this study demonstrated the human and non-human relationship underlying contemporary digital memory practices and the importance of addressing technology from a cultural lens, the main limitation of this study lies in the lack of empirical data on the side of the people who develop new technologies. While much of this role could be identified indirectly through young people's accounts, scholarly work and media discourses, working with people from technology companies that create these technologies could have been beneficial. However, this limitation also provides an interesting avenue for future research into digital memory that has so far been rarely ethnographically approached. Demands to 'study up' on social hierarchies instead of focusing on participants that are marginalised and thus more exposed to research demands are not new (Gusterson 1997), but remain relatively small in numbers. Ethnographic or empirical studies that are working with people who design platforms and digital devices are important to further research this side of the assemblage. While acknowledging that there are more hurdles to getting access to company cultures that produce technology these cultures shape how we remember dramatically. People's relationship with technology is a two-way stream. The ways technologies are constructed and for which purposes are important since they are not neutral and embody biases and ideologies

– often leading to unintended results. in everyday lives when ordinary people use them. Provides much more material for research.

Furthermore, understanding the requirements of preserving digital memories for future is an interesting topic for the future research that has been rarely discussed. While the amounts of data we hold grow, more storage capacity is needed. Yet, we live at a historical tipping point where humanity's energy consumption and need for natural resources threaten the world's ecosystems and climate. Impactful server failures of large digital platforms have recently occurred more frequently. As we start to realise that digital media forgets more easily than previously assumed (Hoskins 2013; Mayer-Schönberger 2009).

Although it is an unlikely scenario, we should start to ask what would happen when large monopolies like Meta would disappear one day (Öhman and Aggarwal 2020). What would happen to people's personal memories but also to the collective memory produced online? Would it be ethical for states to bail out such private actors like they have done with banks in the 2008 financial crisis?

Another significant limitation of this study lies in making predictions about the future of digital memory practices. While the findings can help us to imagine and envision alternative futures, they cannot predict how practices might change over time. It might be argued that because young people are 'our future' we can read how these practices might continue to be applied. However, even in the short span of young people's lifetimes their digital memory practices multiple times have changed and the meanings of their digital memory objects have also shifted over the years (Chapters 5 and 6). Memory making is an ongoing process not very suitable to make predictions, as it is always specific to the present context. The life story that young people tell on social media for example is adjusted to their current self-understanding and present motivations to communicate with others. Thus, this study can provide only a snapshot in time of how these practices were as I encountered them in the field. In order to understand the variety of memory practices, but also views on digital technologies and how their presence unlocks cultural responses, requires further investigations within different cultural settings.

At the time of writing, these discussions are disproportionately focused on the Global North, although digital technologies are also firmly established in everyday lives of people in other parts

of the world. This proliferation is also due to technology companies' efforts to broader their businesses and dominate local digital infrastructures (Kwet 2019). Hence, digital media's influence goes far beyond outdated notions of developed and developing countries, which still imply that countries in Africa, South America and parts of Asia are 'behind modern times'. Understanding how digital media affects human memory practices, thus, requires breaking out of eurocentrism. Memory practices are culturally specific and it is not enough to centre attention on one small part of humanity. Digital anthropology is uniquely well-positioned to explore this field. Our understanding of digital technologies will remain limited unless more attention is paid to the practices undertaken globally. Moreover, studies undertaken by scholars from and working on the Global South should find more attention. If we truly want to understand what digital media means to memory we need to broaden the scope in order to get a complex and multifaceted understanding of how digital media co-creates human remembering.

Bibliography

Ajunwa, Ifeoma (2016): Hiring by Algorithm. In *SSRN Journal*. DOI: 10.2139/ssrn.2746078.

Alabdulwahhab, Faten Adel (2018): Web 3.0: The Decentralized Web Blockchain networks and Protocol Innovation. In : 2018 1st International Conference on Computer Applications & Information Security (ICCAIS 2018). Riyadh, Saudia Arabia, 4-6 April 2018. 2018 1st International Conference on Computer Applications & Information Security (ICCAIS). Riyadh, 4/4/2018 - 4/6/2018. Piscataway, NJ: IEEE, pp. 1–4.

Anderson, Benedict R. O'G. (2016): Imagined communities. Reflections on the origin and spread of nationalism / Benedict Anderson. Revised edition. London, New York: Verso.

Appadurai, Arjun (2010, 1996): Modernity at large. Cultural dimensions of globalization. 8. print. Minneapolis: Univ. of Minnesota Press (Public worlds, vol. 1).

Aragona, Biagio; Felaco, Cristiano; Marino, Marina (2018): The Politics of Big Data Assemblages.

Are, Carolina (2021): The Shadowban Cycle: an autoethnography of pole dancing, nudity and censorship on Instagram. In *Feminist Media Studies*, pp. 1–18. DOI: 10.1080/14680777.2021.1928259.

Argenti, Nicolas; Schramm, Katharina (2010): Remembering violence. Anthropological perspectives on intergenerational transmission / edited by Nicolas Argenti and Katharina Schramm. New York: Berghahn Books.

Assmann, Aleida; Conrad, Sebastian (2010): Memory in a global age. Discourses, practices and trajectories / edited by Aleida Assmann and Sebastian Conrad. Basingstoke: Palgrave Macmillan (Palgrave Macmillan memory studies).

Assmann, Jan (2008): Communicative and Cultural Memory. In Astrid Erll, Ansgar Nünning, Sara B. Young (Eds.): Cultural memory studies. An international and interdisciplinary handbook / edited by Astrid Erll, Ansgar Nünning in collaboration with Sara B. Young. Berlin, New York: Walter de Gruyter (Media and cultural memory, 8. 8).

Assmann, Jan; Czaplicka, John (1995): Collective Memory and Cultural Identity. In *New German Critique* (65), p. 125. DOI: 10.2307/488538.

Barassi, Veronica (2015): Activism on the web. Everyday struggles against digital capitalism / Veronica Barassi. 1st. London: Routledge (Routledge new developments in communication and society research, 4).

Barassi, Veronica (2017): Digital citizens? Data traces and family life. In *Contemporary Social Science* 12 (1-2), pp. 84–95. DOI: 10.1080/21582041.2017.1338353.

Barassi, Veronica (2020a): Child data citizen. How tech companies are profiling us from before birth. Cambridge Massachusetts: The MIT Press.

Barassi, Veronica (2020b): Datafied times: Surveillance capitalism, data technologies and the

social construction of time in family life. In *New Media & Society* 22 (9), pp. 1545–1560. DOI: 10.1177/1461444820913573.

Barassi, Veronica; Treré, Emiliano (2012): Does Web 3.0 come after Web 2.0? Deconstructing theoretical assumptions through practice. In *New Media & Society* 14 (8), pp. 1269–1285. DOI: 10.1177/1461444812445878.

Bareither, Christoph (2021): Capture the feeling: Memory practices in between the emotional affordances of heritage sites and digital media. In *Memory Studies* 14 (3), pp. 578–591. DOI: 10.1177/17506980211010695.

Barnier, Amanda J.; Sutton, John (2008): From individual to collective memory: theoretical and empirical perspectives. In *Memory* 16 (3), pp. 177–182. DOI: 10.1080/09541440701828274.

Barth, Fredrik (2002): An Anthropology of Knowledge. In *Current Anthropology* 43 (1), pp. 1–18. DOI: 10.1086/324131.

Baxter, Kent (2008): The modern age. Turn-of-the-century American culture and the invention of adolescence / Kent Baxter. Tuscaloosa, Al.: University of Alabama Press; London : Eurospan [distributor].

Bennett, Andy; Robards, Brady (2014): Mediated Youth Cultures. London: Palgrave Macmillan UK.

Berliner, David (2005a): An "impossible" transmission: Youth religious memories in Guinea-Conakry. In *American Ethnologist* 32 (4), pp. 576–592. DOI: 10.1525/ae.2005.32.4.576.

Berliner, David C. (2005b): The Abuses of Memory: Reflections on the Memory Boom in Anthropology. In *Anthropological Quarterly* 78 (1), pp. 197–211. DOI: 10.1353/anq.2005.0001.

Bhat, Wasim Ahmad (2018): Bridging data-capacity gap in big data storage. In *Future Generation Computer Systems* 87, pp. 538–548. DOI: 10.1016/j.future.2017.12.066.

Blum-Ross, Alicia; Livingstone, Sonia (2016): From youth voice to young entrepreneurs: the individualization of digital media and learning. In *Journal of Digital and Media Literacy*. Available online at http://eprints.lse.ac.uk/67045/1/blum_ross_from%20yuoth%20voice%20to%20.pdf.

Bluteau, Joshua M. (2019): Legitimising digital anthropology through immersive cohabitation: Becoming an observing participant in a blended digital landscape. In *Ethnography* 138 (1), 146613811988116. DOI: 10.1177/1466138119881165.

Boellstorff, Tom (2010, 2008): Coming of age in second life. An anthropologist explores the virtually human / Tom Boellstorff. Princeton, N.J., Woodstock: Princeton University Press.

Bond, Lucy; Rapson, Jessica (2014): The transcultural turn. Interrogating memory between and beyond borders / edited by Lucy Bond and Jessica Rapson. Boston: DE GRUYTER (Media and cultural memory/ Medien und kulturelle Erinnerung, v. 15).

Bottero, Wendy (2015): Practising family history: 'identity' as a category of social practice. In *The British journal of sociology* 66 (3), pp. 534–556. DOI: 10.1111/1468-4446.12133.

Bourdieu, Pierre (2013, 1977): Outline of a theory of practice. Cambridge, U.K, New York: Cambridge University Press (Cambridge studies in social anthropology, 16). Available online at http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=589175.

Bowker, Geoffrey C. (2005): Memory practices in the sciences. Cambridge, Mass., London: MIT (Inside technology).

boyd, danah (2014): It's complicated. The social lives of networked teens / Danah Boyd. New Haven: Yale University Press.

Bräuchler, Birgit; Postill, John (2010): Theorising media and practice. New York: Berghahn Books (Anthropology of media, v. 4). Available online at http://site.ebrary.com/lib/alltitles/docDetail.action?docID=10477137.

Brockmeier, Jens; Carbaugh, Donal (2001): Narrative and Identity. Amsterdam: John Benjamins Publishing Company (1).

Brodie, Patrick (2020): Climate extraction and supply chains of data. In *Media, Culture & Society* 42 (7-8), pp. 1095–1114. DOI: 10.1177/0163443720904601.

Bursztynsky, Jessica (2021): TikTok says 1 billion people use the app each month. In *CNBC*, 9/27/2021. Available online at https://www.cnbc.com/2021/09/27/tiktok-reaches-1-billion-monthly-users.html, checked on 3/17/2022.

Carlo, Silkie; Krueckeberg, Jennifer; Ferris, Griff (2018): Face Off: The Lawless Growth of Facial Recognition in UK Policing.

Castells, Manuel (2000): The rise of the network society. 2nd ed. Oxford: Blackwell (Information age, v.1).

Chacon, Benjamin (2017): 7 Instagram Fails and How to Avoid Them. In *Later Blog*, 12/4/2017. Available online at https://later.com/blog/instagram-fails/, checked on 3/17/2022.

Chandler, David; Fuchs, Christian (2019): Digital Objects, Digital Subjects: Interdisciplinary Perspectives on Capitalism, Labour and Politics in the Age of Big Data: University of Westminster Press.

Charmaz, Kathy (1996): Grounded Theory. In Jonathan A. Smith, Rom Harré, Luk van Langenhove (Eds.): Rethinking methods in psychology. London: SAGE, pp. 27–49.

Chris Locke (2000): Digital Memory and the Problem of Forgetting. In : Memory and Methodology: Routledge, pp. 25–36. Available online at https://www.taylorfrancis.com/chapters/edit/10.4324/9781003086086-3/digital-memory-problem-forgetting-chris-locke.

Chung, Siyoung; Cho, Hichang (2017): Fostering Parasocial Relationships with Celebrities on Social Media: Implications for Celebrity Endorsement. In *Psychol. Mark.* 34 (4), pp. 481–495. DOI: 10.1002/mar.21001.

Coleman, E. Gabriella (2010): Ethnographic Approaches to Digital Media. In *Annual Review of*

Anthropology 39 (1), pp. 487–505. DOI: 10.1146/annurev.anthro.012809.104945.

Coleman, E. Gabriella (2013): Coding freedom. The ethics and aesthetics of hacking / Gabriella Coleman. Princeton, N.J., Woodstock: Princeton University Press.

Coleman, Simon; Collins, Peter (2007): Locating the Field. Space, Place and Context in Anthropology. Oxford: Berg Publishers.

Collier, Malcolm (2013): Approaches to Analysis in Visual Anthropology. In Theo van Leeuwen, Carey Jewitt (Eds.): Handbook of visual analysis. Repr. Los Angeles: SAGE, pp. 35–60.

Couldry, Nick (2004): Theorising media as practice. In *Social Semiotics* 14 (2), pp. 115–132. DOI: 10.1080/1035033042000238295.

Crane, Susan A. (1997): Writing the Individual Back into Collective Memory. In *The American Historical Review* 102 (5), p. 1372. DOI: 10.2307/2171068.

Crowe, Nic; Bradford, Simon (2007): Identiy and structure in online gaming: Young people's symbolic and virtual extensions of self. In Paul Hodkinson, Wolfgang Deicke (Eds.): Youth Cultures. Scenes, Subcultures and Tribes: Routledge.

Cummins, Eleanor (2021): TikTok tics are a symptom of a much bigger problem. In *The Verge*, 12/11/2021. Available online at https://www.theverge.com/2021/11/12/22772157/tiktok-tics-suggestible-distress-teens, checked on 3/18/2022.

Dang, Hoang Linh (2021): Social Media, Fake News, and the COVID-19 Pandemic: Sketching the Case of Southeast Asia. 37-58 Pages / Austrian Journal of South-East Asian Studies, Vol. 14 No. 1 (2021). DOI: 10.14764/10.ASEAS-0054.

Davies, William (2016): The happiness industry. How the government and big business sold us well-being. First published in paperback edition. London, New York: Verso. Available online at http://research.gold.ac.uk/id/eprint/17186/.

Davis, Jenny L. (2014): Triangulating the Self: Identity Processes in a Connected Era. In *Symbolic Interaction*, n/a-n/a. DOI: 10.1002/symb.123.

Davis, Nicola (2019): One in four children 'have problematic smartphone use'. In *The Guardian*, 11/29/2019. Available online at https://www.theguardian.com/society/2019/nov/29/one-in-four-children-have-problematic-smartphone-use, checked on 12/10/2021.

Deleuze, Gilles; Guattari, Félix (2019, 1987): A thousand plateaus. Capitalism and schizophrenia / Gilles Deleuze, Félix Guattari ; translation and foreword by Brian Massumi. Minneapolis: University of Minnesota Press.

Dobson, Amy Shields; Robards, Brady; Carah, Nicholas (Eds.) (2018): Digital Intimate Publics and Social Media. Cham: Springer International Publishing.

Donath, Judith S. (1998): Identity and deception in the virtual community. In : Communities in Cyberspace: Routledge, pp. 37–68. Available online at https://www.taylorfrancis.com/chapters/edit/10.4324/9780203194959-11/identity-deception-virtual-community-judith-donath.

Douglas, Kate (2017): Youth, trauma and memorialisation: The selfie as witnessing. In *Memory Studies* 28 (2), 175069801771483. DOI: 10.1177/1750698017714838.

Douglas-Jones, Rachel; Walford, Antonia; Seaver, Nick (2021): Introduction: Towards an anthropology of data. In *Journal of the Royal Anthropological Institute* 27 (S1), pp. 9–25. DOI: 10.1111/1467-9655.13477.

Dudai, Yadin; Edelson, Micah G. (2016): Personal memory: Is it personal, is it memory? In *Memory Studies* 9 (3), pp. 275–283. DOI: 10.1177/1750698016645234.

Dunn, Tasha R.; Myers, W. Benjamin (2020): Contemporary Autoethnography Is Digital Autoethnography. In *Journal of Autoethnography* 1 (1), pp. 43–59. DOI: 10.1525/joae.2020.1.1.43.

Durham, Deborah (2004): Disappearing youth: Youth as a social shifter in Botswana. In *American Ethnologist* 31 (4), pp. 589–605. DOI: 10.1525/ae.2004.31.4.589.

Durrant, Abigail; Frohlich, David; Sellen, Abigail; Uzzell, David (2011): The secret life of teens: online versus offline photographic displays at home. In *Visual Studies* 26 (2), pp. 113–124. DOI: 10.1080/1472586X.2011.571887.

Edy, Jill A. (2011): The Democratic Potential of Mediated Collective Memory. In Motti Neiger, Oren Meyers, Eyal Zandberg (Eds.): On Media Memory: Collective Memory in a New Media Age. London: Palgrave Macmillan UK, pp. 37–47.

Esposito, Elena (2013): Die Formen des Web-Gedächtnisses. Medien und soziales Gedächtnis. In René Lehmann, Florian Öchsner, Gerd Sebald (Eds.): Formen und Funktionen sozialen Erinnerns: Sozial- und kulturwissenschaftliche Analysen. Wiesbaden: Springer Fachmedien Wiesbaden, pp. 91–103.

Eubanks, Virginia (2019): Automating inequality. How high-tech tools profile, police, and punish the poor. First Picador edition. New York, NY: Picador.

European Commission (2020): Media use in the European Union: report. With assistance of Directorate General for Communication, Kantar: Publications Office.

Feldman, Gregory (2011): If ethnography is more than participant-observation, then relations are more than connections: The case for nonlocal ethnography in a world of apparatuses. In *Anthropological Theory* 11 (4), pp. 375–395. DOI: 10.1177/1463499611429904.

Fillitz, Thomas; Saris, A. Jamie (2013): Debating authenticity. Concepts of modernity in anthropological perspective / edited by Thomas Fillitz and A. Jamie Saris ; with the editorial help of Anna Streissler. New York: Berghahn Books.

Fivush, Robyn (2011): The development of autobiographical memory. In *Annu. Rev. Psychol.* 62 (1), pp. 559–582. DOI: 10.1146/annurev.psych.121208.131702.

Fivush, Robyn (Ed.) (2013): Autobiographical memory and the construction of a narrative self. Developmental and cultural perspectives. 1. issued in paperback. New York, NY: Psychology Press.

Fouseki, Kalliopi; Vacharopoulou, Kalliopi (2013): Digital Museum Collections and Social Media: Ethical Considerations of Ownership and Use. In *Journal of Conservation and Museum Studies* 11 (1), p. 5. DOI: 10.5334/jcms.1021209.

Fuchs, Christian (2014): Social media. A critical introduction / Christian Fuchs. London: SAGE.

Funkenstein, Amos (1989): Collective Memory and Historical Consciousness. In *History and Memory* 1 (1), pp. 5–26. Available online at http://www.jstor.org/stable/25618571.

Gabriel, Fleur (2014): Sexting, Selfies and Self-Harm: Young People, Social Media and the Performance of Self-Development. In *Media International Australia* 151 (1), pp. 104–112. DOI: 10.1177/1329878X1415100114.

Ganti, Tejaswini (2014): Neoliberalism. In *Annual Review of Anthropology* 43 (1), pp. 89–104. DOI: 10.1146/annurev-anthro-092412-155528.

Garde-Hansen, Joanne (2011): Media and memory. Edinburgh: Edinburgh University Press (Media topics). Available online at http://www.jstor.org/stable/10.3366/j.ctt1r25r9.

Garde-Hansen, Joanne; Hoskins, Andrew; Reading, Anna (2009): Save as. digital memories. Basingstoke: Palgrave Macmillan.

Geertz, Clifford (1973): Thick Description: Towards an Interpretive Theory of Culture. Available online at https://philpapers.org/rec/GEETTD.

Gershon, Ilana (2010): Media Ideologies: An Introduction. In *J Linguist Anthropol* 20 (2), pp. 283–293. DOI: 10.1111/j.1548-1395.2010.01070.x.

Gillespie, Tarleton (2010): The politics of 'platforms'. In *New Media & Society* 12 (3), pp. 347–364. DOI: 10.1177/1461444809342738.

Gillespie, Tarleton (2014): The Relevance of Algorithms. In Tarleton Gillespie, Pablo J. Boczkowski, Kirsten A. Foot (Eds.): Media Technologies: The MIT Press, pp. 167–194.

Gillespie, Tarleton (2018): Custodians of the internet. Platforms, content moderation, and the hidden decisions that shape social media. New Haven, London: Yale University Press. Available online at https://www.degruyter.com/isbn/9780300235029.

Glaser, Barney G.; Strauss, Anselm (1967): The discovery of grounded theory. Strategies for qualitative research. New York: Aldine de Gruyter.

Goffman, Erving (1956): The presentation of self in everyday life. London: Penguin.

Goffman, Erving (1986, 1963): Stigma. Notes on the Management of Spoiled Identity. New York: Touchstone. Available online at https://ebookcentral.proquest.com/lib/gbv/detail.action?docID=5663894.

Gorwa, Robert; Binns, Reuben; Katzenbach, Christian (2020): Algorithmic content moderation: Technical and political challenges in the automation of platform governance. In *Big Data & Society* 7 (1), 205395171989794. DOI: 10.1177/2053951719897945.

Graham, Stephen; McFarlane, Colin (2015): Infrastructural lives. Urban infrastructure in context / edited by Stephen Graham, Colin McFarlane. London: Routledge.

Grau, Oliver (2017): Museum and archive on the move. Changing cultural institutions in the digital era. Berlin, Boston: DE GRUYTER.

Gray, Jonathan; Bounegru, Liliana; Venturini, Tommaso (2020): 'Fake news' as infrastructural uncanny. In *New Media & Society* 22 (2), pp. 317–341. DOI: 10.1177/1461444819856912.

Gubrium, Aline; Harper, Krista (2016): Participatory visual and digital methods. London and New York: Routledge (Developing qualitative inquiry, 10).

Gudmundsdottir, Gunnthorunn (2017): Forgetting Online: Self-representation on Social Network Sites. In Gunnthórunn Gudmundsdóttir (Ed.): Representations of forgetting in life writing and fiction. Basingstoke: Palgrave Macmillan (Palgrave Macmillan memory studies), pp. 69–87.

Gupta, Akhil; Ferguson, James (1997): Anthropological locations. Boundaries and grounds of a field science / edited by Akhil Gupta and James Ferguson. Berkeley, CA: University of California Press.

Gusterson, Hugh (1997): Studying Up Revisited. In *Political and Legal Anthropology Review* 20 (1), pp. 114–119. Available online at http://www.jstor.org/stable/24497989.

Hajek, Andrea; Lohmeier, Christine; Pentzold, Christian (2015): Memory in a mediated world. Remembrance and reconstruction. Houndmills, Basingstoke, Hampshire, New York: Palgrave Macmillan (Palgrave Macmillan memory studies). Available online at http://gbv.eblib.com/patron/FullRecord.aspx?p=4098283.

Halbwachs, Maurice (1992, 1939): On collective memory. With assistance of Lewis A. Coser. Chicago: University of Chicago Press (The Heritage of sociology).

Hampton, Keith N.; Wellman, Barry (2018): Lost and Saved... Again: The Moral Panic about the Loss of Community Takes Hold of Social Media. In *Contemp Sociol* 47 (6), pp. 643–651. DOI: 10.1177/0094306118805415.

Handyside, Sarah; Ringrose, Jessica (2017): Snapchat memory and youth digital sexual cultures: mediated temporality, duration and affect. In *Journal of Gender Studies* 26 (3), pp. 347–360. DOI: 10.1080/09589236.2017.1280384.

Haraway, Donna Jeanne (1991): Simians, cyborgs, and women. The reinvention of nature / Donna J. Haraway. New York: Routledge.

Haripriya, Soibam (2020): Memory, Ethnography and the Method of Memory. In *Sociological Bulletin* 69 (1), pp. 67–82. DOI: 10.1177/0038022919899018.

Harlan, Mary Ann (2016): Constructing Youth: Reflecting on Defining Youth and Impact on Methods. In *School Libraries Worldwide* 22 (2), pp. 1–12. Available online at https://www.semanticscholar.org/paper/Constructing-Youth%3A-Reflecting-on-Defining-Youth-on-Harlan/bc1c770cdefe3b85e2fd406e3c1f7c559f10f584.

Harper, Douglas (2002): Talking about pictures: A case for photo elicitation. In *Visual Studies* 17

(1), pp. 13–26. DOI: 10.1080/14725860220137345.

Heath, Alex (2021): Inside Facebook's struggle to keep young people. In *The Verge*, 10/25/2021. Available online at https://www.theverge.com/22743744/facebook-teen-usage-decline-frances-haugen-leaks, checked on 3/17/2022.

Hendricks, Vincent F.; Vestergaard, Mads. author (2019): Reality lost. Markets of attention, misinformation and manipulation / by Vincent F. Hendricks, Mads Vestergaard. Cham: Springer International Publishing : Imprint: Springer.

Hirschfeld, Lawrence A. (2002): Why Don't Anthropologists Like Children? In *American Anthropologist* 104 (2), pp. 611–627. DOI: 10.1525/aa.2002.104.2.611.

Hobsbawm, E. J.; Ranger, T. O. (1992, 1983): The invention of tradition. Cambridge: Cambridge University Press.

Holtzman, Jon D. (2006): Food and Memory. In *Annual Review of Anthropology* 35 (1), pp. 361–378. DOI: 10.1146/annurev.anthro.35.081705.123220.

Homayoun, Ana (2018): Is Your Child a Phone 'Addict'? In *The New York Times*, 1/17/2018. Available online at https://www.nytimes.com/2018/01/17/well/family/is-your-child-a-phone-addict.html, checked on 12/10/2021.

Hoskins, Andrew (2011a): From collective memory to memory systems. In *Memory Studies* 4 (2), pp. 131–133. DOI: 10.1177/1750698011399526.

Hoskins, Andrew (2011b): Media, Memory, Metaphor: Remembering and the Connective Turn. In *Parallax* 17 (4), pp. 19–31. DOI: 10.1080/13534645.2011.605573.

Hoskins, Andrew (2013): The end of decay time. In *Memory Studies* 6 (4), pp. 387–389. DOI: 10.1177/1750698013496197.

Hoskins, Andrew (2014): Media and the Closure of the Memory Boom. In Katharina Niemeyer (Ed.): Media and Nostalgia. London: Palgrave Macmillan UK, pp. 118–125.

Hoskins, Andrew (2016): Memory ecologies. In *Memory Studies* 9 (3), pp. 348–357. DOI: 10.1177/1750698016645274.

Hoskins, Andrew (Ed.) (2017): Digital memory studies. Media pasts in transition. New York, London: Routledge.

Hoskins, Andrew; Tulloch, John (2016): Risk and hyperconnectivity. Media and memories of neoliberalism. Oxford, New York: Oxford University Press (Oxford studies in digital politics).

Ingold, Tim (2002): The Perception of the Environment: Routledge.

Instagram (2022): Community Guidelines | Instagram Help Centre. Available online at https://help.instagram.com/477434105621119/community-guidelines/?bc[0]=Instagram%20Help&bc[1]=Privacy%20and%20Safety%20Center, updated on 3/17/2022, checked on 3/17/2022.

Itō, Mizuko (2013): Hanging out, messing around, and geeking out. Kids living and learning with new media / Mizuko Ito … [et al.]. Cambridge, Mass., London: MIT Press (The John D. and Catherine T. MacArthur Foundation series on digital media and learning).

Jager, Adele de; Fogarty, Andrea; Tewson, Anna; Lenette, Caroline; Boydell, Katherine (2017): Digital Storytelling in Research: A Systematic Review. In *TQR* 22 (10), pp. 2548–2582. DOI: 10.46743/2160-3715/2017.2970.

James, Allison; Prout, Alan (1997): Constructing and reconstructing childhood. Contemporary issues in the sociological study of childhood / edited by Allison James and Alan Prout. 2nd ed. London: Falmer. Available online at http://gbv.eblib.com/patron/FullRecord.aspx?p=181334.

Kalinina, Ekaterina; Menke, Manuel (2016): Negotiating the past in hyperconnected memory cultures: Post-Soviet nostalgia and national identity in Russian online communities. In *International Journal of Media & Cultural Politics* 12 (1), pp. 59–74. DOI: 10.1386/macp.12.1.59_1.

Karagoel, Ilayda; Nathan-Roberts, Dan (2021): Dark Patterns: Social Media, Gaming, and E-Commerce. In *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* 65 (1), pp. 752–756. DOI: 10.1177/1071181321651317.

Kaun, Anne; Stiernstedt, Fredrik (2012): Media Memories: The Case of Youth Radio DT64. In *Participations* 9 (2), pp. 337–359. Available online at https://www.diva-portal.org/smash/record.jsf?pid=diva2:575254.

Keating, Elizabeth (2005): Homo prostheticus: problematizing the notions of activity and computermediated interaction. In *Discourse Studies* 7 (4-5), pp. 527–545. DOI: 10.1177/1461445605054405.

Kent, L. (2011): Local Memory Practices in East Timor: Disrupting Transitional Justice Narratives. In *International Journal of Transitional Justice* 5 (3), pp. 434–455. DOI: 10.1093/ijtj/ijr016.

Kidd, Jenny (2009): Digital Storytelling and the Performance of Memory. In Joanne Garde-Hansen, Andrew Hoskins, Anna Reading (Eds.): Save As … Digital Memories. London: Palgrave Macmillan UK, pp. 167–183.

Kidd, Jenny (2011): Enacting engagement online: framing social media use for the museum. In *ITP* 24 (1), pp. 64–77. DOI: 10.1108/09593841111109422.

Koch, Gertraud (2017): Digitization. Theories and concepts for empirical cultural research / edited by Gertraud Koch. London: Routledge.

Kontopodis, Michalis; Matera, Vincenzo (2010): Doing Memory, Doing Identity: Politics of the Everyday in Contemporary Global Communities. In *Outlines* 12 (2), pp. 1–14. DOI: 10.7146/ocps.v12i2.2776.

Kontopodis, Michalis; Varvantakis, Christos; Wulf, Christoph (Eds.) (2017): Global youth in digital trajectories. London, New York NY: Routledge Taylor & Francis Group (Routledge research in information technology and society, 19).

Krueckeberg, Jennifer (2021): Youth and Algorithmic Memory: Co-producing Personal Memory on Instagram. In Matthias Rauterberg (Ed.): Culture and computing. Interactive culture heritage and arts : 9th International Conference, C&C 2021, held as part of the 23rd HCI International Conference, HCII 2021, virtual event, July 24-29, 2021, proceedings / Matthias Rauterberg (ed.), vol. 12795. Cham, Switzerland: Springer (LNCS sublibrary, SL 3 - Information systems and applications, incl. internet/web, and HCI, 12794-12795), pp. 253–264.

Kwet, Michael (2019): Digital colonialism: US empire and the new imperialism in the Global South. In *Race & Class* 60 (4), pp. 3–26. DOI: 10.1177/0306396818823172.

L. Clark (2016): Participants on the Margins: #BlackLivesMatter and the Role That Shared Artifacts of Engagement Played Among Minoritized Political Newcomers on Snapchat, Facebook, and Twitter. In *undefined*. Available online at https://www.semanticscholar.org/paper/Participants-on-the-Margins%3A-%23BlackLivesMatter-and-Clark/b8f8e2fb914458a1aac99d7420c91a1ae9e98762.

Landa, Manuel de (2016): Assemblage theory. Edinburgh: Edinburgh University Press (Speculative realism).

Lazzara, Michael J. (2017): The Memory Turn. In Juan Poblete (Ed.): New approaches to Latin American studies. Culture and power / edited by Juan Poblete. New York, NY: Routledge.

Le, Alexandre (2021): How the Instagram Algorithm Works in 2022 and 6 Tips to Hack It. In *Socialhead*, 8/14/2021. Available online at https://socialhead.io/knowledge/how-instagram-algorithm-works-and-tips/, checked on 3/17/2022.

Lempert, Lora Bex (2018): Asking Questions of the Data: Memo Writing in the Grounded Theory Tradition. In Antony Bryant (Ed.): The SAGE Handbook of Grounded Theory. 2. edition. LOS ANGELES: SAGE Publications, pp. 245–264.

Leurs, Koen (2015): Digital passages migrant youth 2.0. Diaspora, gender and youth cultural intersections. Amsterdam: Amsterdam University Press (MediaMatters).

Light, Ben; Bagnall, Gaynor; Crawford, Garry; Gosling, Victoria (2018): The material role of digital media in connecting with, within and beyond museums. In *Convergence* 24 (4), pp. 407–423. DOI: 10.1177/1354856516678587.

Lim, Joon Soo; Nicholson, John; Yang, Sung-Un; Kim, Ho-Kyung (2015): Online authenticity, popularity, and the "Real Me" in a microblogging environment. In *Computers in Human Behavior* 52, pp. 132–143. DOI: 10.1016/j.chb.2015.05.037.

Lindholm, Charles (2008): Culture and authenticity. Oxford: Blackwell.

Livingstone, Sonia (2008): Taking risky opportunities in youthful content creation: teenagers' use of social networking sites for intimacy, privacy and self-expression. In *New Media & Society* 10 (3), pp. 393–411. DOI: 10.1177/1461444808089415.

Livingstone, Sonia; Blum-Ross, Alicia (2020): Parenting for a digital future. How hopes and fears about technology shape children's lives. Oxford: Oxford University Press.

Livingstone, Sonia M.; Sefton-Green, Julian (2016): The class. Living and learning in the digital

age / Sonia Livingstone and Julian Sefton-Green. New York: New York University Press (Connected youth and digital futures).

Lohmeier, Christine; Kaun, Anne; Pentzold, Christian (2020): Making time in digital societies: Considering the interplay of media, data, and temporalities—An introduction to the special issue. In *New Media & Society* 22 (9), pp. 1521–1527. DOI: 10.1177/1461444820913555.

Lupton, Deborah (2015): Digital sociology. Abingdon Oxon: Routledge Taylor & Francis Group.

Lupton, Deborah (2016a): Digital companion species and eating data: Implications for theorising digital data–human assemblages. In *Big Data & Society* 3 (1), 205395171561994. DOI: 10.1177/2053951715619947.

Lupton, Deborah (2016b): The quantified self. A sociology of self-tracking / Deborah Lupton. Cambridge, UK: Polity.

Lupton, Deborah; Williamson, Ben (2017): The datafied child: The dataveillance of children and implications for their rights. In *New Media & Society* 19 (5), pp. 780–794. DOI: 10.1177/1461444816686328.

Maaz, Kai; Diedrich, Martina (2020): Schule unter Pandemiebedingungen: "Lockdown" – "Hybridmodell" – "Normalbetrieb" | APuZ. In *Bundeszentrale für politische Bildung*, 11/12/2020. Available online at https://www.bpb.de/apuz/schule-2020/322683/schule-unter-pandemiebedingungen, checked on 10/11/2021.

Macdonald, Sharon (2013): Memorylands. Heritage and identity in Europe today / Sharon Macdonald. London, New York: Routledge.

Mace, John (2019): Structure and Function of Autobiographical Memory. First edition. Oxford: OUP Oxford; Oxford University Press.

Marchant, Caroline; O'Donohoe, Stephanie (2019): Homo prostheticus ? Intercorporeality and the emerging adult-smartphone assemblage. In *ITP* 32 (2), pp. 453–474. DOI: 10.1108/ITP-07-2017-0209.

Marcus, George E. (1995): Ethnography In/Of the World System: The Emergence of Multi-Sited Ethnography. In *Annual Review of Anthropology* 24 (1), pp. 95–117. DOI: 10.1146/annurev.anthro.24.1.95.

Marcus, George E. (2011): Multi-sited Ethnography: Five or Six Things I Know About It Now. In Simon Coleman, Pauline von Hellermann (Eds.): Multi-sited ethnography. Problems and possibilities in the translocation of research methods / edited by Simon Coleman and Pauline von Hellermann. New York: Routledge (Routledge advances in research methods, 3), pp. 16–32. Available online at https://www.taylorfrancis.com/chapters/edit/10.4324/9780203810156-6/multi-sited-ethnography-five-six-things-know-george-marcus.

Marcus, George E.; Saka, Erkan (2006): Assemblage. In *Theory, Culture & Society* 23 (2-3), pp. 101–106. DOI: 10.1177/0263276406062573.

Markham, Annette (2020): The limits of the imaginary: Challenges to intervening in future speculations of memory, data, and algorithms. In *New Media & Society*, 146144482092932. DOI:

10.1177/1461444820929322.

Martineau, Jonathan (Ed.) (2015): Time, capitalism and alienation. A socio-historical inquiry into the making of modern time. Leiden, Boston: BRILL (Historical materialism book series, volume 96).

Mayer-Schönberger, Viktor (2009): Delete. The Virtue of Forgetting in the Digital Age (New in Paper). Princeton: Princeton University Press. Available online at https://ebookcentral.proquest.com/lib/gbv/detail.action?docID=5542030.

McAdams, Dan P. (2011): Narrative Identity. In Seth J. Schwartz, Koen Luyckx, Vivian L. Vignoles (Eds.): Handbook of identity theory and research. New York, London: Springer, pp. 99–115.

Mesch, Gustavo (2010): Wired Youth: Routledge.

Mesch, Gustavo S.; Talmud, Ilan (2010): Wired youth. The social world of adolescence in the information age / Gustavo S. Mesch and Ilan Talmud. London: Routledge (Adolescence and society).

Meta (2021): Teaching AI how to forget at scale. Available online at https://ai.facebook.com/blog/teaching-ai-how-to-forget-at-scale?utm_source=hootsuite&utm_medium=facebook&utm_term=facebook%20ai&utm_content=aab52b49-8e56-453a-b8a1-224179fc9435&utm_campaign=AI%20Blog&__tn__=-UK, updated on 3/17/2022, checked on 3/17/2022.

Migowski, Ana Lúcia; Fernandes Araújo, Willian (2019): "Looking back" at personal memories on Facebook: Co-constituitive agencies in contemporary remembrance practices. In *Journal of Aesthetics & Culture* 11 (sup1), p. 1644130. DOI: 10.1080/20004214.2019.1644130.

Miller, Daniel; Horst, Heather A. (2012): Digital anthropology. London: Berg.

Miller, Daniel; Walton, Shireen author; Wang, Xinyuan; Abed Rabho, Laila author; Awondo, Patrick; Vries, Maya author de et al. (2021): The global smartphone. Beyond a youth technology / Daniel Miller [and ten others]. 1st. London: UCL Press (Ageing with smartphones). Available online at https://www.jstor.org/stable/10.2307/j.ctv1b0fvh1.

Moore, Martin; Tambini, Damian (2018): Digital dominance. The power of Google, Amazon, Facebook, and Apple / edited by Martin Moore and Damian Tambini. New York: Oxford University Press.

Moradi, Fazil; Buchenhorst, Ralph; Six-Hohenbalken, Maria (2017): Memory and genocide. Abingdon, Oxon, New York, NY: Routledge.

Mould, Tom (2018): Introduction to the Special Issue on Fake News: Definitions and Approaches. In *The Journal of American Folklore* 131 (522), p. 371. DOI: 10.5406/jamerfolk.131.522.0371.

Müller, Martin; Schurr, Carolin (2016): Assemblage thinking and actor-network theory: conjunctions, disjunctions, cross-fertilisations. In *Trans Inst Br Geogr* 41 (3), pp. 217–229. DOI: 10.1111/tran.12117.

Nelson, Katherine (2017): The Cultural Construction of Memory in Early Childhood: Oxford University Press (1).

Nguyen, Linh; Barbour, Kim (2017): Selfies as expressively authentic identity performance. In *FM*. DOI: 10.5210/fm.v22i11.7745.

Niemeyer, Katharina; Keightley, Emily (2020): The commodification of time and memory: Online communities and the dynamics of commercially produced nostalgia. In *New Media & Society* 22 (9), pp. 1639–1662. DOI: 10.1177/1461444820914869.

Noble, Safiya Umoja (2018): Algorithms of oppression. How search engines reinforce racism. New York: New York University Press.

Obar, Jonathan A.; Wildman, Steven S. (2015): Social Media Definition and the Governance Challenge - An Introduction to the Special Issue. In *SSRN Journal*. DOI: 10.2139/ssrn.2663153.

Öhman, Carl; Aggarwal, Nikita (2020): What if Facebook goes down? Ethical and legal considerations for the demise of big tech. In *Internet Policy Review* 9 (3). DOI: 10.14763/2020.3.1488.

Our World in Data (2022): Number of people using social media platforms. Available online at https://ourworldindata.org/grapher/users-by-social-media-platform?time=2009.2019, updated on 3/17/2022, checked on 3/17/2022.

Paolo Gerbaudo (2017): From cyber-autonomism to cyber-populism: An ideological history of digital activism. In *tripleC: Communication, Capitalism & Critique* 15 (2), pp. 477–489. Available online at https://kclpure.kcl.ac.uk/portal/en/publications/from-cyberautonomism-to-cyberpopulism(31f53236-0a0d-4f6e-a501-247733109aa0).html.

Pfaffenberger, Bryan (1988): Fetishised Objects and Humanised Nature: Towards an Anthropology of Technology. In *Man* 23 (2), p. 236. DOI: 10.2307/2802804.

Pickren, Graham (2018): 'The global assemblage of digital flow'. In *Progress in Human Geography* 42 (2), pp. 225–243. DOI: 10.1177/0309132516673241.

Pine, Frances; Kaneff, Deema; Haukanes, Haldis (Eds.) (2004): Memory, politics and religion. The past meets the present in Europe. Münster: Lit (Halle studies in the anthropology of Eurasia, 4).

Pink, Sarah (2013): Doing visual ethnography. Images, media and representation in research. 3. ed. Los Angeles: SAGE.

Pink, Sarah; Horst, Heather; Postill, John; Hjorth, Larissa; Lewis, Tania; Tacchi, Jo (2016): Digital ethnography. Principles and practice. Los Angeles, London: SAGE.

Ploeger, Daniël (2017): Abject Digital Performance: Engaging the Politics of Electronic Waste. In *Leonardo* 50 (2), pp. 138–142. DOI: 10.1162/LEON_a_01159.

Poell, Thomas; Nieborg, David; van Dijck, José (2019): Platformisation. In *Internet Policy Review* 8 (4). DOI: 10.14763/2019.4.1425.

Postill, John (2008): Localizing the internet beyond communities and networks. In *New Media & Society* 10 (3), pp. 413–431. DOI: 10.1177/1461444808089416.

Postill, John (2010): Introduction: Theorising media and practice. In Birgit Bräuchler, John Postill: Theorising media and practice. Edited by John Postill, Birgit Bräuchler. With assistance of John Postill, Birgit Bräuchler. Oxford: Berghahn (Anthropology of media, v. 4).

Postill, John (2018): The rise of nerd politics. Digital activism and political change / John Postill. London: PlutoPress (Anthropology, culture & society).

Prasad, Aarathi; Quinones, Asia (2020): Digital Overload Warnings - "The Right Amount of Shame"? In Masaaki Kurosu (Ed.): Human-Computer Interaction. Human Values and Quality of Life. Thematic Area, HCI 2020, Held as Part of the 22nd International Conference, HCII 2020, Copenhagen, Denmark, July 19-24, 2020, Proceedings, Part III. Cham, 2020. 1st ed. 2020. Cham: Springer International Publishing; Springer (Information Systems and Applications, incl. Internet/Web, and HCI, 12183), pp. 117–134.

Raikhel, Eugene A.; Garriott, William Campbell (2013): Addiction trajectories. Durham, North Carolina: Duke University Press (Experimental futures : technological lives, scientific arts, anthropological voices).

Reading, Anna (2008): Mediated Memories in the Digital Age. In *Memory Studies* 1 (1), pp. 137–139. DOI: 10.1177/1750698007083895.

Reading, Anna (2020): Afterword/Afterweb: The Antisocial Memory Assemblage. In Samuel Merrill, Emily Keightley, Priska Daphi (Eds.): SOCIAL MOVEMENTS, CULTURAL MEMORY AND DIGITAL MEDIA. Mobilising mediated. [Place of publication not identified]: SPRINGER NATURE, pp. 275–288.

Ringrose, Jessica; Harvey, Laura; Gill, Rosalind; Livingstone, Sonia (2013): Teen girls, sexual double standards and 'sexting': Gendered value in digital image exchange. In *Feminist Theory* 14 (3), pp. 305–323. DOI: 10.1177/1464700113499853.

Robards, Brady; Lincoln, Sian; Pinkard, Benjamin C.; Harris, Jane (2018): Remembering Through Facebook: Mediated Memory and Intimate Digital Traces. In Amy Shields Dobson, Brady Robards, Nicholas Carah (Eds.): Digital Intimate Publics and Social Media. Cham: Springer International Publishing, pp. 75–91.

Rohlinger, Deana A.; Sobieraj, Sarah (Eds.) (2020): The Oxford Handbook of Sociology and Digital Media. New York: Oxford University Press (Oxford handbooks online). Available online at
http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780197510636.001.0001/oxfordhb-9780197510636.

Rohrer, Ingo (2014): Anthropology and Youth. In Ingo Rohrer (Ed.): Cohesion and Dissolution. Friendship in the Globalized Punk and Hardcore Scene of Buenos Aires. Wiesbaden: Springer Fachmedien Wiesbaden; Imprint; Springer VS, pp. 37–45.

Ross, Scott (2019): Being Real on Fake Instagram: Likes, Images, and Media Ideologies of Value. In *J Linguist Anthropol* 29 (3), pp. 359–374. DOI: 10.1111/jola.12224.

Russell, Nicolas (2006): Collective Memory before and after Halbwachs. In *The French Review* 79 (4), pp. 792–804. Available online at http://www.jstor.org/stable/25480359.

Russo, Angelina (2012): The rise of the ‘media museum. In *Heritage and social media: Understanding heritage in a participatory culture*, pp. 145–157.

Scerri, Eleanor M. L.; Kühnert, Denise; Blinkhorn, James; Groucutt, Huw S.; Roberts, Patrick; Nicoll, Kathleen et al. (2020): Field-based sciences must transform in response to COVID-19. In *Nat Ecol Evol* 4 (12), pp. 1571–1574. DOI: 10.1038/s41559-020-01317-8.

Schacter, Daniel L.; Addis, Donna Rose (2020): Memory and Imagination: Perspectives on Constructive Episodic Simulation. In Anna Abraham (Ed.): The Cambridge handbook of the imagination. Cambridge, United Kingdom, New York, NY: Cambridge University Press (Cambridge handbooks in psychology), pp. 111–131.

Schreurs, Lara; Vandenbosch, Laura (2021): Introducing the Social Media Literacy (SMILE) model with the case of the positivity bias on social media. In *Journal of Children and Media* 15 (3), pp. 320–337. DOI: 10.1080/17482798.2020.1809481.

Schudson, Michael (1997): Lives, laws, and language: Commemorative versus non-commemorative forms of effective public memory. In *The Communication Review* 2 (1), pp. 3–17. DOI: 10.1080/10714429709368547.

Schuman, Howard; Corning, Amy (2014): Collective memory and autobiographical memory: Similar but not the same. In *Memory Studies* 7 (2), pp. 146–160. DOI: 10.1177/1750698013508196.

Seaver, Nick (2017): Algorithms as culture: Some tactics for the ethnography of algorithmic systems. In *Big Data & Society* 4 (2), 205395171773810. DOI: 10.1177/2053951717738104.

Seaver, Nick (2019): Captivating algorithms: Recommender systems as traps. In *Journal of Material Culture* 24 (4), pp. 421–436. DOI: 10.1177/1359183518820366.

Sebald, Gerd; Döbler, Marie-Kristin (Eds.) (2018): (Digitale) Medien und soziale Gedächtnisse. Springer Fachmedien Wiesbaden GmbH. Wiesbaden: Springer VS (Soziales Gedächtnis, Erinnern und Vergessen – Memory Studies). Available online at http://www.springer.com/.

Shaw, Ashley; Krug, Don (2013): Heritage Meets Social Media: Designing a Virtual Museum Space for Young People. In *Journal of Museum Education* 38 (2), pp. 239–252. Available online at https://eric.ed.gov/?id=EJ1061722.

Shaw, Rosalind (2007): Displacing Violence: Making Pentecostal Memory in Postwar Sierra Leone. In *can* 22 (1), pp. 66–93. DOI: 10.1525/can.2007.22.1.66.

Shirky, Clay (2008): Here comes everybody. The power of organizing without organizations / Clay Shirky. New York: Penguin Press.

Shore, Heather (2019): Adolescence in the 19th Century. In Stephen Hupp, Jeremy Jewell (Eds.): The Encyclopedia of Child and Adolescent Development: Wiley, pp. 1–10.

Smith, Sean P. (2021): Landscapes for “likes”: capitalizing on travel with Instagram. In *Social*

Semiotics 31 (4), pp. 604–624. DOI: 10.1080/10350330.2019.1664579.

Sommer, Vivien (2018): Mediatisierte Erinnerungen. Medienwissenschaftliche Perspektiven für eine Theoretisierung digitaler Erinnerungsprozesse. In Gerd Sebald, Marie-Kristin Döbler (Eds.): (Digitale) Medien und soziale Gedächtnisse. Wiesbaden: Springer VS (Soziales Gedächtnis, Erinnern und Vergessen – Memory Studies), pp. 53–79.

Statista (2022a): Instagram: age distribution of global audiences 2022 | Statista. Available online at https://www.statista.com/statistics/325587/instagram-global-age-group/, updated on 3/17/2022, checked on 3/17/2022.

Statista (2022b): Snapchat: daily active users worldwide | Statista. Available online at https://www.statista.com/statistics/545967/snapchat-app-dau/, updated on 3/17/2022, checked on 3/17/2022.

Stuedahl, Dagny (2009): Digital Cultural Heritage Engagement: A New Research Field for Ethnology. In *Ethnologia Scandinavica* 39, pp. 67–81.

Sutton, Theodora (2020): Digital harm and addiction: An anthropological view. In *Anthropology Today* 36 (1), pp. 17–22. DOI: 10.1111/1467-8322.12553.

ten Oever, Niels (2021): "This is not how we imagined it": Technological affordances, economic drivers, and the Internet architecture imaginary. In *New Media & Society* 23 (2), pp. 344–362. DOI: 10.1177/1461444820929320.

Thomas, Monique (2021): This is How the Instagram Algorithm Works in 2022. In *Later Blog*, 11/28/2021. Available online at https://later.com/blog/how-instagram-algorithm-works/, checked on 3/17/2022.

Treacher, Amal (2000): Children: Memories, Fantasies and Narratives: From Dilemma to Complexity. In Susannah Radstone (Ed.): Memory and methodology. Oxford, New York: Berg.

Tufekci, Zeynep (2013): "Not This One". In *American Behavioral Scientist* 57 (7), pp. 848–870. DOI: 10.1177/0002764213479369.

Turkle, Sherry (2005): The second self. Computers and the human spirit / Sherry Turkle. 20th anniversary ed., 1st MIT Press ed. Cambridge, Mass., London: MIT.

Turunen, Johanna (2020): Decolonising European minds through Heritage. In *International Journal of Heritage Studies* 26 (10), pp. 1013–1028. DOI: 10.1080/13527258.2019.1678051.

van Dijck, José (2007): Mediated memories in the digital age. Stanford, Calif: Stanford University Press (Cultural memory in the present). Available online at http://www.loc.gov/catdir/enhancements/fy0803/2007008641-b.html.

van Dijck, José (2008): Digital photography: communication, identity, memory. In *Visual Communication* 7 (1), pp. 57–76. DOI: 10.1177/1470357207084865.

van Dijck, José (2013): 'You have one identity': performing the self on Facebook and LinkedIn. In *Media, Culture & Society* 35 (2), pp. 199–215. DOI: 10.1177/0163443712468605.

van Dijck, José (2020): Governing digital societies: Private platforms, public values. In *Computer Law & Security Review* 36, p. 105377. DOI: 10.1016/j.clsr.2019.105377.

van Dijck, José; Nieborg, David; Poell, Thomas (2019): Reframing platform power. In *Internet Policy Review* 8 (2). DOI: 10.14763/2019.2.1414.

van Gennep, Arnold; Vizedom, Monika B.; Caffee, Gabrielle L. (2019, 1909): The rites of passage. Second edition. Chicago: The University of Chicago Press.

van House, Nancy; Churchill, Elizabeth F. (2008): Technologies of memory: Key issues and critical perspectives. In *Memory Studies* 1 (3), pp. 295–310. DOI: 10.1177/1750698008093795.

van Schie, Gerwin; Westra, Irene; Schäfer, Mirko Tobias (2017): 13. Get Your Hands Dirty. In Mirko Tobias Schäfer, Karin van Es (Eds.): The datafied society. Studying culture through data. Amsterdam: Amsterdam University Press, pp. 183–200.

Vickery, Jacqueline Ryan (2018): Worried about the wrong things. Youth, risk, and opportunity in the digital world. Cambridge, Massachusetts: The MIT Press (The John D. and Catherine T. MacArthur Foundation series on digital media and learning). Available online at https://ebookcentral.proquest.com/lib/gbv/detail.action?docID=4983519.

Wahlberg, Ayo (2018): Good quality. The routinization of sperm banking in China / Ayo Wahlberg. Oakland, California: University of California Press.

Wang, Qi; Brockmeier, Jens (2002): Autobiographical Remembering as Cultural Practice: Understanding the Interplay between Memory, Self and Culture. In *Culture & Psychology* 8 (1), pp. 45–64. DOI: 10.1177/1354067X02008001618.

Warde, Alan (2005): Consumption and Theories of Practice. In *Journal of Consumer Culture* 5 (2), pp. 131–153. DOI: 10.1177/1469540505053090.

Wartella, Ellen; Robb, Michael (2008): Historical and Recurring Concerns about Children's Use of the Mass Media. In Sandra L. Calvert, Barbara J. Wilson (Eds.): The handbook of children, media, and development. Oxford: Blackwell (Handbooks in communication and media).

Webb, Colin (2018): The malleability of fire: preserving digital information. In : Managing Preservation for Libraries and Archives: Routledge, pp. 27–52. Available online at https://www.taylorfrancis.com/chapters/edit/10.4324/9781315249919-2/malleability-fire-preserving-digital-information-colin-webb.

Wells, Georgia; Horwitz, Jeff (2021): Facebook's Effort to Attract Preteens Goes Beyond Instagram Kids, Documents Show. In *The Wall Street Journal*, 9/28/2021. Available online at https://www.wsj.com/articles/facebook-instagram-kids-tweens-attract-11632849667, checked on 3/17/2022.

Wertsch, James V. (2002): Voices of collective remembering. Cambridge, New York: Cambridge University Press.

Williams; Brooks; Shmargad (2018): How Algorithms Discriminate Based on Data They Lack: Challenges, Solutions, and Policy Implications. In *Journal of Information Policy* 8, p. 78. DOI: 10.5325/jinfopoli.8.2018.0078.

Wilson, Brian (2006): Ethnography, the Internet, and Youth Culture: Strategies for Examining Social Resistance and "Online-Offline" Relationships. In *Canadian Journal of Education / Revue canadienne de l'éducation* 29 (1), p. 307. DOI: 10.2307/20054158.

Wilson, Samuel M.; Leighton C. Peterson (2002): The Anthropology of Online Communities. In *Annual Review of Anthropology* 31, pp. 449–467. Available online at http://www.jstor.org/stable/4132888.

Zappavigna, Michele (2016): Social media photography: construing subjectivity in Instagram images. In *Visual Communication* 15 (3), pp. 271–292. DOI: 10.1177/1470357216643220.

Zittrain, Jonathan (2021): The Rotting Internet Is a Collective Hallucination. In *The Atlantic*, 6/30/2021. Available online at https://www.theatlantic.com/technology/archive/2021/06/the-internet-is-a-collective-hallucination/619320/, checked on 11/16/2021.

Zuboff, Shoshana (2019): The age of surveillance capitalism. The fight for a human future at the new frontier of power / Shoshana Zuboff. New York, NY: PublicAffairs.

Appendices

Appendix A: Summary of the research results

A.1. Kurzfassung der Ergebnisse

Die Hauptfrage dieser Arbeit lautete: „Welche Praktiken nutzen junge Menschen für das Schaffen, das Teilen, das Abrufen und die Instandhaltung von Erinnerungen in Verbindung zu digitalen Medien?“. Die Untersuchung hat zahlreiche dieser Praktiken sowie die zugrunde liegenden Gefüge, die diese beeinflussen, identifiziert. Da digitale Medien eine starke Präsenz im Alltag junger Menschen haben, formen sie ihre täglichen Rituale, Tätigkeiten, Weltanschauungen und folglich ihre Erinnerungspraktiken. Zudem stellt sich heraus, dass die digitalen Aktivitäten junger Menschen moralisiert werden. Während Lernen als eine positive Aktivität gefördert wird, werden andere digitale Interaktionen als unproduktiv abgewertet und sollten folglich nur in Maßen getätigt werden. Die entstehenden Narrative werden oftmals mit Problemen der psychischen Gesundheit und Suchtsymptomen in Verbindung gebracht, was zur Moralisierung und Medikalisierung dieser Technologien führt. Diese öffentlichen Diskurse um digitale Medien werden von jungen Leuten verinnerlicht und entsprechend reproduziert, was sich auch in ihren Erinnerungspraktiken niederschlägt.

Des Weiteren beeinflussen Normen der sozialen Medien und Medienideologien wie junge Leute ihre Erinnerungen auf Social-Media-Plattformen schaffen, teilen und aufrechterhalten. Während junge Menschen die Möglichkeiten für persönliches Erinnern wertschätzen, beeinträchtigen die Durchsetzung von Plattform-Regeln und algorithmisches „Gatekeeping“ die Sichtbarkeit junger Leute online und ihre Selbstausdrucksformen. Das resultierende Machtgefälle zwischen Individuen, die die Plattform nutzen, und Unternehmern, die diese Plattformen besitzen und formen, ist ausgeprägt. Trotz dieser Hindernisse zeigen die Forschungsergebnisse, dass soziale Medien wichtig für das Verwalten und Teilen persönlicher Erinnerungen sind und ebenfalls die Möglichkeit bieten, persönliche Verbindungen zu historischen Ereignissen und anderen Formen des kollektiven Erinnerns aufzubauen. In diesem Sinne nehmen Profile (z.B. auf Instagram) die Funktion von Archiven und eines „visuellen Tagebuches“ an, welche bedeutend für Online-Identitätsdarstellungen und die Schaffung von Identitätsnarrativen sind.

Die Forschung hat mehrere unsichtbare menschliche und nicht-menschliche Akteure zum

Vorschein gebracht. Besonders die Rolle von Algorithmen in den Erinnerungspraktiken junger Leute sind markant in den Forschungsergebnissen, da sie beeinflussen wie, wann und was junge Menschen in sozialen Netzwerken posten und daher festschreiben, was auf diesen Plattformen erinnert wird. Außerdem weisen die Ergebnisse darauf hin, dass Algorithmen auch beeinflussen, wie junge Menschen mit ihren persönlichen Erinnerungen auf ihren Smartphones interagieren, z.B. durch das algorithmische Ordnen von Fotogalerien. Die Typologie der Erinnerungspraktiken junger Menschen zeigt zusätzlich die zugrunde liegenden Dynamiken innerhalb des erinnerungschaffenden Gefüges auf und differenziert zwischen diesen Praktiken als schaffend, teilend und erhaltend. Durch diese Kategorisierung der Erinnerungspraktiken junger Menschen verfolgt die Typologie die Interaktionen zwischen bestimmten Technologien und beschreibt die Verbindungen zwischen ihnen und den resultierenden Praktiken.

A.2. Summary of Research Results

The main question of this research was "What are young people's practices of creating, sharing, accessing and maintaining memories in connection to digital media?" The research has identified several of these practices and the underlying assemblage that influences them. Because digital media has a strong presence in young people's everyday lives, it shapes daily rituals, tasks, worldviews and consequently their memory making practices. The research shows further that young people's digital activities are highly moralised. While learning is promoted as a positive activity, digital interactions that are deemed unproductive are negatively connoted and should only be done in moderation. Evolving narratives are often linked to mental health issues and likened to addictions, which leads to the moralisations and medicalisations of these technologies. These public discourses around digital media are internalised and reproduced accordingly by young people, and reflected in their memory practices.

Moreover, social media norms and media ideologies influence how young people create, share and maintain their memories on social media platforms. While young people appreciate the possibility to use social media for personal remembering the enforcement of platform rules and algorithmic gatekeeping hinder young people's visibility and their self-expressions. The resulting power imbalances between individuals using the platform and corporate actors owning and shaping these platforms are distinct. Despite these obstacles, the results demonstrate that social media, is important for the management and sharing of personal memory as well as to connect to historical events and other forms of collective remembering. In this regard, profiles (e.g. on Instagram) take on the role of archives and 'visual diaries', that are crucial in online identity performance and the creation of narrative identity.

The research has uncovered several invisible human and non-human actors. Particularly the role of algorithms in young people's memory practices are prominent in the research results, as they influence how, when and what young people are posting on social media, hence, determining what is remembered on these platforms. Furthermore, the results indicate that algorithms also influence how young people interact with their personal memories on their smartphones, e.g. through algorithmic sorting of photo galleries. The typology of young people's memory practices further illustrates the dynamics inherent in the memory making assemblage and differentiates these practices into creating, sharing and maintaining. By categorising young people's memory practices

the typology traces the interactions between certain technologies and describes the interconnectivities between certain technologies and resulting practices.

Appendix B: List of earlier publications resulting from this dissertation

Ideas presented in Chapter 5 were built on the following publication:
Krueckeberg, Jennifer (2021): Youth and Algorithmic Memory: Co-producing Personal Memory on Instagram. In Matthias Rauterberg (Ed.): Culture and computing. Interactive culture heritage and arts: 9th International Conference, C&C 2021, held as part of the 23rd HCI International Conference, proceedings, pp. 253–264. DOI: 10.1007/978-3-030-77431-8_16

The blog post further explored ideas presented in Chapter 4:
Krueckeberg, Jennifer (2021): Neoliberal Morality: Shame and Self-Improvement as Control over Young People's Digital Productivity. Platypus- THE CASTAC BLOG. https://blog.castac.org/2021/09/neoliberal-morality-shame-and-self-improvement-as-control-over-young-peoples-digital-productivity/

The article references some of the main issues surrounding the digital economy for young people, as found through my research:
Tzouganatou, Angeliki; Krueckeberg, Jennifer (2021): From Monopolizing Memory to Co-Creating it: Openness and Equity in the Digital Ecosystem. AoIR Selected Papers of Internet Research, 2021. DOI:10.5210/spir.v2021i0.12255

Appendix C: Consent Forms and Information Sheets

C.1. Consent forms and information sheets – English versions

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Information Sheet

The project 'Modalities of personal memory making' will be conducted by Jennifer Krueckeberg, EU-researcher at the Institute of European Ethnology/Cultural Anthropology at the University of Hamburg. This project is funded by the EU Horizon 2020 Programme and is part of the European Training Network POEM (Participatory Memory Practices).

The research project aims to find out in which ways young people between the ages 13 – 25 are collecting, creating, performing and sharing personal memories. Participating in this project will entail being interviewed and the observation of online and real life activities as well as meeting with the researcher. This means that personal information about you will be collected.
All information that will be collected during the course of this project will be treated confidentially and will only be used for research purposes. The collected data will be coded, which means that your name and other information that might identify you will be removed to keep your identity anonymous. **Please keep in mind that if you want your data to be removed from the research, you have to tell the researcher before the research ends in November 2020.**
Anonymised datasets will be made available to other researchers of the POEM network using a secure online server provided by the University of Hamburg. These datasets will also be archived on Zenodo, a secure online server, **which will be made public at the end of the project in October 2021.**
Interviews with the researcher will be recorded as an audio file, which will be

destroyed at the end of the project at the end of 2021. Pictures of your activities or the content you post online (in this case screenshots) might be taken for documentation and later analysis by the research. **The researcher will always ask you before any captured images or videos will be published. You can always refuse a publication.**

It is possible that uncomfortable situations occur that might cause you emotional stress, when talking about certain experiences or memories you have. Should this be the case you can always end the conversation with the researcher. **You can also choose to end participation at any time, without giving any explanations and without causing any disadvantages for yourself. The participation in this study is not paid and will be undertaken on a voluntary basis.**

The results of this project will be published in a PhD thesis, but might also be published in academic journals, blogs or presented at conferences.

This project has received funding from the European Union's Horizon 2020 research and innovation pro-gramme under the Marie Skłodowska-Curie grant agreement No. 764859

Declaration of consent

I_________________________________, hereby voluntarily agree to participate in the research project "Modalities of Personal Memory Making" and understand that I will not benefit monetarily from participating in this research. The purpose and nature of the study were explained to me in writing and I have had the opportunity to ask questions about the study.

I agree to my interviews being audio-recorded and that video, image and text material I created might become part of this study. Therefore, I understand that the participation involves the collection of my personal information and that all information will be treated confidentially. I understand that my anonymised datasets will be made available to other researchers of the POEM network using a secure online server provided by the University of Hamburg. These datasets will also be archived on Zenodo, a secure online server, which will be made public at the end of the project in October 2021.

I understand that under the EU's General Data Protection Regulation I am entitled to access the information I have provided at any time while it is in storage.I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising details of my interview and social media posts. I understand that extracts from my interview may be quoted in the researcher's PhD thesis, conference presentations and academic journal articles

I understand that images and videos of me might be published, in the researcher's PhD thesis, conference presentations and academic journals. The researcher will contact me beforehand and I understand that I have the option to anonymise images by pixelating my face or videos by distorting my voice and pixelating my face. I understand that I can refuse a publication at any time.

I am aware that I can withdraw from the study at any point and that my data can only be removed before the completion of data collection in November 2020. I also understand that I can refuse to answer certain questions asked by researcher, when feeling uncomfortable. I understand that I am free to contact the researcher Jennifer Krueckeberg at any point to seek further clarification and information.

Jennifer Krueckeberg M.A.
Grindelallee 46
20146 Hamburg
jennifer.krueckeberg@uni-hamburg.de

__________________________ __________________________

Name participant Date/Signature Participant

The participant was informed about the scope and the nature of a participation. I believe the participant is giving informed consent

____

Date/Signature researcher

This project has received funding from the European Union's Horizon 2020 research and innovation pro-gramme under the Marie Sklodowska-Curie grant agreement No. 764859

Consent Form: Publication of images and video material

I____________________________________, hereby voluntarily agree to the publication of images and/or video materials that were produced by me, to be used in relation to the research project "Modalities of Personal Memory Making".

I agree that my images and/or video materials can be used for publication in:

- ☐ the researcher's PhD thesis
- ☐ academic journal articles
- ☐ presentations at conferences

I agree that images and/or video materials portraying myself will be published

- ☐ in anonymised form by pixelating my face or distorting my voice
- ☐ without any anonymisation

The purpose and nature of the publication was discussed with me and I have had the opportunity to ask questions about the usage. I understand that I am free to contact the researcher Jennifer Krueckeberg at any point to seek further clarification and information:

Jennifer Krückeberg M.A.
Grindelallee 46
20146 Hamburg
jennifer.krueckeberg@uni-hamburg.de

____________________________ ____________________________

Name of participant Date/Signature or participant

This project has received funding from the European Union's Horizon 2020 research and innovation pro-gramme under the Marie Skłodowska-Curie grant agreement No. 764859

C.2. Consent forms and information sheets – German versions

Informationsblatt

Das Projekt "Modalitäten des persönlichen Erinnerns" (Originaltitel: Modalities of personal memory making) wird von Jennifer Krückeberg, EU-Forscherin am Institut für Volkskunde/Kulturanthropologie der Universität Hamburg, durchgeführt. Dieses Projekt wird durch das EU- Programm Horizon 2020 finanziert und ist Teil des Europäischen Trainingsnetzwerks POEM (Participatory Memory Practices).

Das Forschungsprojekt untersucht, auf welche Art und Weise junge Menschen zwischen 13 und 25 Jahren ihre persönlichen Erinnerungen sammeln, gestalten, darstellen und teilen. Die Teilnahme an dem Projekt beinhaltet ggf. ein Treffen mit der Forscherin, eine Befragung und das Beobachten Ihrer online- sowie offline-Aktivitäten durch die Forscherin. Dies bedeutet, dass persönliche Informationen über Sie gesammelt werden.

Alle während dieses Projekts gesammelten Informationen werden vertraulich behandelt und ausschließlich für Forschungszwecke verwendet. Die gesammelten Daten werden kodiert, d.h. Ihr Name und andere Informationen, die Sie identifizieren könnten, werden entfernt, um Ihre Identität anonym zu halten. **Bitte beachten Sie, wenn Sie die Entfernung Ihrer Daten wünschen, dass Sie dies der Forscherin vor der Beendigung der Datenerhebung im November 2020 mitteilen müssen.**

Anonymisierte Datensätze werden anderen Forschern des POEM-Netzwerks über einen von der Universität Hamburg zur Verfügung gestellten gesicherten Onlineserver zugänglich gemacht. Diese anonymisierten Datensätze werden ebenfalls auf dem gesicherten Onlineserver Zenodo, **am Ende des Projekts im Oktober 2021** öffentlich gemacht.

Interviews mit der Forscherin werden als Audiodateien aufgenommen, welche am Ende des Projekts, Ende 2021, vernichtet werden. Screenshots Ihrer Aktivitäten oder Inhalte, die Sie online stellen, werden zu Dokumentationszwecken und für spätere Analysen aufgenommen. **Jegliches Bild- und Videomaterial wird nur mit Ihrer ausdrücklichen Erlaubnis veröffentlicht.** Die Forscherin wird sich dafür im Vorfeld mit Ihnen in Verbindung setzen. **Sie können einer Veröffentlichung jederzeit widersprechen.**

Es ist möglich, dass wenn Sie über gewisse Erfahrungen und Erinnerungen sprechen, unangenehme Situationen für Sie entstehen und emotionaler Stress hervorgerufen wird. Sollte dieser Fall eintreten, können Sie die Unterhaltung mit der Forscherin jederzeit beenden. **Sie können sich außerdem, ohne Gründe nennen zu müssen und ohne dass daraus Nachteile für Sie entstehen, jederzeit gegen eine weitere Teilnahme entscheiden. Die Teilnahme an der Studie ist unbezahlt und findet auf freiwilliger Basis statt.**

Die Ergebnisse des Projekts werden in einer Dissertation veröffentlicht, ggf. auch in akademischen Zeitschriften, Blogs oder Präsentationen.

This project has received funding from the European Union's Horizon 2020 research and innovation pro-gramme under the Marie Skłodowska-Curie grant agreement No. 764859

Einverständniserklärung

Hiermit erkläre ich mich freiwillig bereit, am Forschungsprojekt „Modalitäten des persönlichen Erinnerns“ (Originaltitel: Modalities of personal memory making) teilzunehmen. Ich verstehe, dass ich keine finanziellen Vorteile aus der Teilnahme ziehe. Der Zweck und die Natur der Studie wurden mir in schriftlicher Form erklärt, und ich hatte die Möglichkeit, Fragen zu stellen.

Ich stimme der Audioaufnahme meiner Interviews zu und bin damit einverstanden, dass das Video-, Bild - und Textmaterial, das ich erstellt habe oder in dem ich zu sehen bin, Teil dieser Studie werden können. Ich bin mir darüber im Klaren, dass eine Teilnahme das Sammeln meiner persönlichen Informationen bedeutet und alle Informationen vertraulich behandelt werden. Ich habe verstanden, dass meine anonymisierten Datensätze anderen Forschern des POEM-Netzwerks über einen von der Universität Hamburg zur Verfügung gestellten gesicherten Onlineserver zugänglich gemacht werden. Diese anonymisierten Datensätze werden ebenfalls auf Zenodo, einem gesicherten Onlineserver, am Ende des Projekts im Oktober 2021 der Öffentlichkeit zugänglich gemacht.

Ich habe verstanden, dass ich unter dem Europäischen Datenschutzgesetz DSGVO, das Recht habe, jederzeit auf meine Informationen zuzugreifen, solange sie gespeichert sind. Ich habe verstanden, dass in jeglichem Bericht der Forschungsergebnisse meine Identität anonym bleibt. Dies beinhaltet die Änderung meines Namens sowie die Maskierung von Details aus den Befragungen und meinen Beiträgen in den sozialen Medien. Ich bin mir im Klaren darüber, dass Ausschnitte aus den Befragungen in der Dissertation der Forscherin, in Konferenzvorträgen und wissenschaftlichen Zeitschriften zitiert werden können.

Ich habe verstanden, dass meine Bilder und Videos eventuell in der Dissertation der Forscherin, in Konferenzvorträgen und wissenschaftlichen Zeitschriften veröffentlicht werden können. Die Forscherin wird vor jeglicher Veröffentlichung mit mir in Kontakt treten und ich weiß, dass ich die Möglichkeit habe, dass Bildmaterial in dem ich zu sehen bin, durch Pixelierung und Videos durch nana anonymisiert werden können. Ich verstehe, dass ich jederzeit einer Veröffentlichung widersprechen kann.

Mir ist bewusst, dass ich jederzeit meine Teilnahme an der Studie zurückziehen kann und meine Daten nur vor der Beendigung der Datenerhebung im November 2020 entfernt werden können. Ich habe auch verstanden, dass ich mich weigern kann, auf gewisse Fragen zu antworten, wenn mir diese Unbehagen bereiten. Ich verstehe, dass ich jederzeit die Möglichkeit habe, die Forscherin Jennifer Krückeberg zu kontaktieren, um Ungenauigkeiten zu klären und weitere Informationen zu erhalten.

Jennifer Krueckeberg M.A.
Grindelallee 46
20146 Hamburg
jennifer.krueckeberg@uni-hamburg.de

______________________________ ______________________________

Name Teilnehmer*in | Datum/Unterschrift Teilnehmer*in

Die/der Teilnehmer*in wurde über den Zweck der Studie und Natur der Teilnahme aufgeklärt. Die/der Teilnehmer*in hatte die Gelegenheit Rückfragen zu stellen.

____

Datum/Unterschrift Forscherin

This project has received funding from the European Union's Horizon 2020 research and innovation pro-gramme under the Marie Sklodowska-Curie grant agreement No. 764859

Einverständniserklärung zur Veröffentlichung von Bild- und Videomaterialien

Hiermit erkläre ich mich damit einverstanden, dass Fotos und/oder Videoaufnahmen, die von mir produziert wurden oder mich zeigen, im Zusammenhang mit dem Forschungsprojekt „Modalities of Personal Memory Making" veröffentlicht werden dürfen, und zwar in folgenden Formaten:

☐ Dissertation der Forscherin

☐ Beiträge in wissenschaftlichen Zeitschriften

☐ Präsentationen auf wissenschaftlichen Konferenzen und Kongressen

Ich bin damit einverstanden, dass Bild- und Videomaterial in folgender Form veröffentlicht werden dürfen:

☐ in anonymisierter Form (durch das Verpixeln meines Gesichts und Verzerrung meiner Stimme).

☐ ohne jegliche Anonymisierung

Der Zweck und die Natur der Veröffentlichung wurden im Vorfeld mit mir besprochen. Ich hatte die Möglichkeit, Fragen zu dem Gebrauch zu stellen. Ich verstehe, dass ich die Forscherin Jennifer Krückeberg jederzeit kontaktieren kann, um weitere Erklärungen und Informationen zu erhalten:

Jennifer Krückeberg M.A.
Grindelallee 46
20146 Hamburg
jennifer.krueckeberg@uni-hamburg.de

_______________________________ _______________________________

Name Teilnehmer*in Datum/Unterschrift Teilnehmer*in

This project has received funding from the European Union's Horizon 2020 research and innovation pro-gramme under the Marie Skłodowska-Curie grant agreement No. 764859

Information Sheet: Workshop 'Digital Storytelling'

Digital Storytelling Workshop:

In this workshop, students will create a short 2-5 min video based on a personal memory using photographs, footage, voice-overs or music. If desired by the students, an Instagram account will be created to showcase the finished videos.

Children participating in the workshop will create own narratives around their memories and are encouraged to freely express their thoughts. The researcher will work *with* the children to co-create knowledge and work on the question of: How do young people use digital media to create personal memories?

The workshop 'Digital Storytelling' forms part of the project **'Modalities of personal memory making'**.

What is the project about?

The project **'Modalities of personal memory work'** explores in which ways young people aged between 13-25 incorporate digital media into their memory making processes. It further explores how digital media changes memory work and how new technologies are appropriated by young people.

Participating in this project will entail:

- Conversations with the researcher
- The observation of online activities and the child's creative processes

Data Protection and Rights

This means that personal information about your child will be collected. All information that is collected during the course of this project will be treated confidentially and will only be used for research purposes.

This will include making your child's anonymised datasets available to other researchers of the POEM network using a secure online server provided by the University of Hamburg. These datasets will also be archived on Zenodo, a secure online server, which will be made public at the end of the project in October 2021.

Pictures of your child's activities or the content they created in the workshop will be documented and analysed for the research. It is possible that uncomfortable situations occur that might cause your child emotional stress, when recollecting experiences or memories. Should this be the case the child can always end a conversation. You or your child can also choose to end participation at any time, without giving any explanations and without causing

any disadvantages for yourself. The participation in this study is not paid and will be undertaken on a voluntary basis.

The collected data will be coded, which means that your child's name and other identifiable personal information will be removed to keep their identity anonymous. Please keep in mind that if you want your child's data to be removed from the research, you have to tell the researcher before summer 2021.

The results of this project will be published in a PhD thesis, but might also be published in academic journals, blogs or presented at conferences.

For further information or questions, please do not hesitate to contact:

Jennifer Krueckeberg

Grindelallee 46
20146 Hamburg
Germany
jennifer.krueckeberg@uni-hamburg.de
https://www.poem-horizon.eu/

About the researcher

Jennifer Krueckeberg is a PhD fellow at the EU funded research project POEM at the University of Hamburg. She holds an MRes in Anthropology and MA in Anthropology and Cultural Politics from Goldsmiths, University of London. She has previously lived, worked and studied in Cologne, Tokyo and London.

https://www.poem-horizon.eu/people/jennifer-krueckeberg/

This project has received funding from the European Union's Horizon 2020 research and innovation pro-gramme under the Marie Sklodowska-Curie grant agreement No. 764859

Consent Form Parents/Legal Guardians

I_________________________________, hereby voluntarily agree to the participation of my child _____________________________________ in the research project "**Modalities of Personal Memory Making"** and understand that neither my child nor I will benefit monetarily from participating in this research. The purpose and nature of the study were explained to me in writing and I have had the opportunity to ask questions about the study.

I agree that video, image and text material of my child or that my child has created might become part of this study. Therefore, I understand that the participation involves the collection of my child's personal information and that all information will be treated confidentially. I understand that my child's anonymised datasets will be made available to other researchers of the POEM network using a secure online server provided by the University of Hamburg. These datasets will also be archived on Zenodo, a secure online server, which will be made public at the end of the project in October 2021.

I understand that under the EU's General Data Protection Regulation I am entitled to access the held information about my child **at any time** while it is in storage.

I understand that in any report on the results of this research the identity of my child will remain anonymous. This will be done by changing their name and disguising details of their interview and social media posts. I understand that extracts from conversations may be quoted in the researcher's PhD thesis, conference presentations and academic journals.

I understand that images and videos of my child might be published, in the researcher's PhD thesis, conference presentations and academic journals. The researcher will contact my child and me beforehand and I understand that we have the option to anonymise images of my child by pixelating their face or videos by distorting their voice. I understand that I can refuse a publication at any time.

I am aware that my child or I can withdraw from the study at any point and that my child's data can only be removed **before the completion of the study**. I also understand that my child can refuse to answer certain questions asked by the researcher, when feeling uncomfortable. I also understand that I am free to contact the researcher **Jennifer Krueckeberg** at any point to seek further clarification and information:

Jennifer Krueckeberg MRes
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20146 Hamburg
jennifer.krueckeberg@uni-hamburg.de
https://www.poem-horizon.eu/

I believe the participant's parent/legal guardian is giving informed consent to participate in this study

____

Signature of researcher/Date

____

Signature of the participant/Date

This project has received funding from the European Union's Horizon 2020 research and innovation pro-gramme under the Marie Sklodowska-Curie grant agreement No. 764859

Consent Form for Parents/Legal guardians to publish images and video material

I______________________________________, hereby voluntarily agree to the publication of images and/or video materials that show or were produced by my child____, to be used in relation to the research project "Modalities of Personal Memory Making".

I agree that **images and/or video materials** of my child or that my child has created can be used for publication in:

☐ the researcher's PhD thesis

☐ academic journal articles

☐ presentations at conferences

I agree that images and/or video materials portraying my child will be published

☐ in anonymised form by pixelating their face or distorting their voice

☐ without any anonymisation

The purpose and nature of the publication was discussed with me and I have had the opportunity to ask questions about the usage. I understand that I am free to contact the researcher Jennifer Krueckeberg at any point to seek further clarification and information:

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Appendix D: Digital Storytelling workshop structure handout for participants

7 Steps of Digital Storytelling

Script writing

Step 1: Owning your insights

Everyone has experiences and memories that are unique. This step is about finding a memory and confidently telling your story about it.

Example: "My story is about baking a cake with my grandmother, when I was little. She helped me to put together the ingredients and to follow the recipe. The meaning of my story is that it is important to spend time with people you love."

- What's the story you want to tell?
- What do you think your story means?

Step 2: Owning your emotions

This step involves thinking about which emotions you want to communicate to the audience throughout your story.

Example: "When I tell this story I feel happy because it was such a nice day, but at the same time I feel a bit sad because I don't see my grandmother often anymore.

- As you shared your story, or story idea, what emotions did you experience?"
- Can you identify at what points in sharing your story you felt certain emotions?"

Step 3: Finding the moment

This step helps you identify a special moment (or several moments) in your memory that should be the centre point of your story.

Example: "At first I thought the cake will turn out great, but when it came out of the oven it was

all burnt. I was really shocked and sad. But my grandmother laughed and I realised that the cake wasn't so important. It was more important to have a nice time together.

- What was the moment when things changed?
- Is there more than one possible moment to choose from? If so, do they convey different meanings?
- Which most accurately conveys the meaning in your story?
- Can you describe the moment in detail?

Storyboard

Step 4: Seeing your story

This step helps you to visualise the story and think about the images that will carry your story.

- What images come to mind when recalling the moment of change in the story?
- What images come to mind for other parts of the story?"

Voice-over

Step 5: Hearing your story

During this step try to identify whether the voice-over is clear and engaging and adds to the story.

- Is the sound and voice-over enhancing the story, or taking away from it?

Editing

Step 6: Assembling your story

In this step, we assemble the voice-over and sound we recorded with the visuals.

- What are the necessary parts of my story?
- How will telling this part shape the story differently or take it in a different direction?

Sharing

Step 7: Sharing your story

Your digital story is complete – well done! Now it is time to show it to others. Are you planning

to show it to someone outside the classroom? Are you going to show it to your family and friends?

- In what presentation will your digital story be viewed?
- And what life will the story have after it’s completed?

Eidesstattliche Erklärung

Hiermit erkläre ich an Eides statt, dass ich die vorliegende Dissertationsschrift selbst verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt habe.

Hamburg, den	**Unterschrift**
02.05.2022	Jennifer Krückeberg