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The Memory Remains: Visible Presences within the Network[1]

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Abstract

Bereavement practices with the material legacies of the dead are known to be deeply complex, multifaceted and tap into a rich cultural imaginary around the desire to honour, remember and aid the dead to persist on. Since the mid 1990's, scholarships have begun to acknowledge the changing nature of people's material legacies after death. Through increasing engagement with different technologies, the deceased are now leaving extensive digital legacies within the internet. Empirical research has revealed how memorials and social networking profiles offer the bereaved a positive focus for loss and community building. Furthermore, empirical work has investigated how memorial sites and Facebook can invoke the social presence of the dead. However, there are a range of remains and social presences online that have surfaced during my doctoral inquiry that are missing from this developing discourse, such as the dead seeming to like things on Facebook, advertise products, become trending topics, remind us of our birthday commitments, appear in search listings and congratulate us on our new jobs.

Within this review I provide an overview of the current literature around the themes of digital legacy and the digital afterlife that has emerged out of the developing intersection of death and technology studies. By outlining the current debates, I begin to challenge the current thinking by introducing an interdisciplinary approach from New Media studies, in order to reconsider online remains and how evoked social presences in online environments may actually complicate grief instead of aiding, as many research results suggest. This review concludes by reflecting on how sometimes the dead can live on, but potentially as unwelcomed and unwanted presences within the sensitive context of loss and bereavement.

[1] I would like to thank the editor and reviewer for their very useful comments on an earlier draft. I would also like to thank Ana Bê for her help with revising and discussing some of the ideas contained within.

Introduction

The state of absence and loss brought about by the intervention of death into the daily flow of life can cause the living to turn towards what remains present. What is lost inevitably causes the living to question what remains behind as "Loss is inseparable from what remains, for what is lost is known only by what remains of it, by how these remains are produced, read, and sustained" (Eng & Kazanjian 2003, 13). These remains include what remains of us, our bodies, the clothes that covered us, the places where we lived and things that filled those spaces.

Scholarships within death studies serve to remind us that material remains play a very important role within bereavement and in mediating loss (Hallam & Hockey 2001, 19; Hallam, Hockey & Howarth 1999, 13; Gibson 2008, 2). As material legacies that become abandoned in death and are left to the bereaved to manage, they also become part of the processes of remaking of life and remembrance (Hallam & Hockey 2001, 19; Gibson 2008, 2; Odom et al. 2010, 1832; Massimi & Baecker 2011, 1002). The bereaved have to deal with the pragmatics these remains cause. The shifting, recasting, (re)organising and the subsequent (re)distribution, discarding, crafting and selling of remains, which is often managed in line with the perceived value by those left in control or the direct wishes of the dead (Gibson 2008, 15; Ellis Gray 2014, 2). Remains can hold value in a multitude of different ways to people, including being prized for the capacity to provoke nostalgia, and help the bereaved to reminisce about that which has been lost (Hallam & Hockey 2001, 20; Gibson 2008; 2 Odom et al. 2010,1832; Kirk & Sellen 2010, 1).

Due to the increasing uptake of digital technologies, people are creating new and often extensive digital legacies across different digital devices. People leave behind a great amount of digital assets and data fragments, such as status updates, digital images, blogs, GPS locations, search histories and social networking profiles. Scholars from a wide range of disciplines have begun to investigate empirically how the bereaved use these remains in the remaking of life in the context of bereavement and honouring. Likewise, studies have begun to look at digital remains, their ability to invoke continuing bonds and the social presence of the dead (Bos 1995,7; Jones 2004, 83, Kasket 2012, 62 ; Massimi et al. 2011, 987; Odom et al. 2010,1832, Moncur & Waller 2010, 1; Sherlock 2013, 164; Graham 2013, 133; Stokes 2012, 363; DeGroot 2012, 195; Brubaker 2013, 152; Ellis Gray & Coulton 2013, 36.)

However, there are a range of online presences that have emerged during my doctoral inquiry, which are currently missing from this emerging field. Unlike previous examples discussed in the literature, these presences have emerged from data fragments which remain active in unforeseen ways, such as the dead reaching out across LinkedIn social networking website to reconnect with the living, or the difficult last moments before death which are persisting online. Therefore, this review reports on the main work in the field and discusses the current debates in order to give a current overview of how to approach this subject.

By drawing on literature from New Media studies, I will move to introduce interdisciplinary scholarships in order to reconsider the notion of (digital) remains and the materiality of the internet. This will trouble the (in)visibility of what currently remains present online when someone dies and will begin to gesture towards the deeper range of presences in the Web that are currently unrecognised within the research literature. I will continue to outline how presences can emerge from last Tweets, Tumblr posts, video capture and Instagram shots with the potential to manifest the dead online in ways that may distress the sensibilities of the bereaved and have the potential to interact with the bereaved in ways that can be troubling and upsetting.

Material Remains

As part of their ability to provoke feelings of nostalgia and help the bereaved to remember, remains are also known to play a very important role in invoking and mediating the social presence of the dead. Material legacies can appear ingrained by deep residues, perceptible in ways that become profoundly evocative to the memories of the living and can mediate bonds with the dead (Gibson 2008, 183). Through engaging with remains, the dead can become more present than they ever were in life, reminding us how, in death, people do not simply switch from being alive to being socially and physically dead. Instead, aspects of our persona and identities can transgress this binary state of being alive or dead (Gibson 2008, 185; Hallam & Hockey 2001, 2; Hallam, Hockey & Howarth 1999, 214; Davis 2002, 175). Through social and material arrangements, some deceased can continue to live on 'in memory', and be socially alive outside of the body's physical boundaries (Davis 2002, 175; Hallam, Hockey & Howarth 1999, 14). Deceased individuals can haunt the bereaved and continue to shape lives through bequests and become socially mediated through their remains (Gibson 2008, 37). Ghostly presences, sights, smells and sounds of the dead make themselves known to the bereaved, especially in the acute early weeks following a loss (Gibson 2008, 186; Walter 2008, 3). Material remains outlive the death of the owner and visibly carry the marks of use and time such as chips in cups, scents on clothes or dips in chairs, that help the dead to socially manifest and become known to the living (Gibson 2008, 187; Davis 2007, 3).

In the process of managing these remains, the biographies, identities and the social presences of the deceased become fractured, (re)configured, (dis)assembled, condensed and (re)negotiated through ongoing engagements (Ellis Gray 2014, 3; Gibson 2008, 37). This is a feature in the nexus of the remaking of life and living with loss that occurs within a diverse and divergent range of socio-cultural bereavement practices (Davis 2002, 6). It is also becoming an increasingly legitimised phenomenon due to the western scholarship known as Continuing Bonds with the dead. Within death studies, the Continuing Bonds thesis emerged in the mid 1990's to begin acknowledging the complex interplay of relations and challenge notions of closure and letting go of the deceased (Klass & Silverman 1996, 3). Ongoing work around continuing bonds still reveals the complex arrangements around how the dead can stay as a lifelong feature in the private lives of individuals (Walter 2008a, 3; Hallam et al. 1999, 3).

Digital Remains and Digital Legacy

In the mid 1990's an intersection between death and technologies studies opened. By 2008 the developing field had attracted a number of interdisciplinary academics, industry partners and public stakeholders across Europe and the US. Their work began to acknowledge the increasing presence of technologies across the End-of-Life period. From living wills, funeral planning, directives, legacy software and social media use, technologies were increasingly being deployed to offer support to the dying. Unique innovations for the post-mortem interval, such as the mobile verbal autopsy tool were in development (Bird et al. 2013, 1489; Moncur et al. 2012, 531). Funeral homes were noted to augment ceremonies, through online condolence books, videos, mobile phones and PowerPoint slides (Massimi et al. 2011, 988). Headstones had become embedded with QR Codes or touched by augmented reality (Walter et al. 2011, 276). Also, there has been recognition that there are many grief related websites, memorials, virtual worlds and spaces that are being appropriated to help in remembering and honouring the dead individually and communally, such as memorialised profile pages in Myspace and Facebook social networking sites (Bell 2006, 142; Massimi et al. 2011, 987; Walter et al. 2011, 277).

Within this emerging field, the themes of digital legacy and digital afterlife are the oldest strands in the field. The first academic work to touch on the issue of remains, their complex role within bereavement and ability to invoke the presence of the dead, emerged in 1995. Computer scientist Edwin Bos wrote a speculative paper for the Human Computer Interaction (HCI) field titled Making the Dead Live On: An Interactive, Talking Picture of a Deceased Person (1995). His work discussed the complex interplay between physical, analogue and digital remains, presences of the dead and the practices of remaking of life with things (Bos 1995, 7). It was until over 13 years later in 2008 when death and technology studies returned to this issue of remains (Kirk & Banks 2008, 1). This revisiting emerged out of tangential but interesting research projects around sustainability, home archiving and technological heirlooms. As the first empirical work on the issue of remains, it was primarily focused on people's engagement with material legacies and turned to digital remains in order to question how items could be left behind, appropriated, bequeathed, digitised or created by the bereaved (Kirk & Banks 2008, 1; Kirk & Sellen 2010, 1; Odom et al. 2010, 1832.)

From 2011 onwards the issue of remains have become increasingly visible through discussions around data. As alongside traditional material legacies, the bereaved can now increasingly engage with laptops, mobile telephones, games consoles, music players and tablets. Devices have become entwined with digital assets, such as music files, purchased movies online, e-books and virtual forms of currency. In addition, there are dead data remnants to be considered, such as banking logins, files stored in the cloud[2], emails, blogs posts, status updates and broader shadowy traces of people's engagement online, which can be traced such as search engine histories. When combined with the data kept about us (i.e. cookies[3]), Global Positioning System (GPS) locations, device sensors (i.e. accelerometers, magnetometers, etc.), Internet Protocol (IP) addresses and server logs[4], we can portray a rich picture of a person's online engagement. The death of the physical body is now "followed by a slow decay of a massive body of information" (Kera 2013, 178).

While the majority of research emerges around online bereavement continues to empirically focus on memorials, or on activities occurring within the social network spaces of Facebook or Myspace[5], scholarships that look towards the practices of bereavement or the issue of digital remains begin to note:

> Studies on communicative processes tend to involve living users and their interactions, be it with the system or via the system. Yet it is worth stressing the datum itself is not posthumous, as it was produced by the user when alive. 'Posthumous' is the interaction occurring with data belonging to someone already dead (Maciel & Carvalho Pereira 2013, 86).

Tentative 'Posthumous' research which has begun to emerge considered more broadly data remains and digital legacy outside of memorials and Facebook activities (Pitsillides 2012, 1; Haakon, Gulotta & Forlizzi 2012, 1; Gulotta et al.

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[2] Cloud storage is where people can save their data to an off-site and remote storage system that is usually maintained by a third party, rather than storing information to a computer's hard drive.

[3] Cookie or web cookie is a small piece of data acquired when visiting a site, which can track user habits.

[4] IP addresses are binary codes assigned to a device in a network, as a way of identifying the device and its location. Server logs are automatically created files that contain details such as the requests made to the server.

[5] See i.e. Massimi & Charise 2009, 2459; Simmons 2010, 1; Getty et al. 2011, 997; Kasket 2012, 62; Brubaker & Vertesi 2010, 1; Marwick & Ellison 2012, 378; McEwen & Scheaffer 2013, 64; Lingel 2013, 190; Pennington 2013, 617; DeGroot 2012, 195; Church 2013, 184.

2013, 1813; Maciel & Carvalho Pereira 2013, 86). More specifically and in my doctoral research, it looked towards data practices and how data was being appropriated and used to mediate loss across a wide range of online spaces and platforms (Ellis 2012, 1; Ellis Gray 2012, 1; Ellis Gray & Coulton, 2013, 38,). In addition, fresh discussions of the bereaved creating remains or data around the dead began to emerge, as seen within accounts of post mortem photography around infants (Riechers 2010,1) or the use of search engines by the bereaved (Ruthven 2012, 120).

These studies have begun to resonate with previous work by media theorist professor Steve Jones, who in 2004 discussed the deep histories of people appropriating and creating remains from media (Jones 2004, 83). Like Jones, other scholarships continued to emerge in the field that continued to explore the complex relations between bereavement and remains, emphasising how the bereaved do not always engage in acts of creation or appropriation in order to provoke an internalised cognitive memory process or to memorialise (Odom et al. 2010, 1883; Jones 2004, 83; Kirk & Sellen 2010, 1). In fact, bereavement practices with the things that remain are deeply complex and tap into a much richer history and cultural imaginary around the desire to live on and being remembered.

Digital Presence

In 1995, when Edwin Bos introduced the complex interplay between remains and bereavement, part of what he explored was related to how people can live on socially through remaking life with remains (Bos 1995, 7). Within bereavement studies this notion of living on is best exemplified within the theory of Continuing Bonds (Klass & Silverman 1996, 3). Continuing bonds theory pointed out that the bereaved may choose to keep bonds with the deceased rather than looking for closure and people could find ways to keep the dead within their ongoing lives and communities (Klass & Silverman 1996, 3).

Within the death and technologies intersection, Continuing Bonds has increasingly become a strong presence throughout the field and has dominated other perspectives such as grief work (Van den Hoven et al. 2008,1) and attachment theory (Nager & De Vries 2004, 43). In turn, the social lives of the dead have also begun to appear in the literature, firstly within death studies (Roberts 2004, 57; Roberts & Vidal 2000, 521; Rutherford & de Vries 2004, 5) and later within HCI research. Jed Brubaker & Janet Vertesi have used the terms 'ghosts' and 'hauntings' in relation to the presence of the dead emerging within their empirical Facebook study (Brubaker & Vertesi 2010, 1). The capacity of Facebook for continuing bonds and mediating relationships with the dead lead it to be deemed as a "modern–day medium" (Kasket 2012, 62). Equally, studies have highlighted how Facebook is also capable of attracting unwanted attention in the light of the strong moral and cultural responses that the interaction with the dead can incite such as gathering negative comments or sustained trolling activities (Riechers 2012,1).

Digital Afterlife

The notion of living on or at least finding a form of continuation socially taps into a bigger dialogue that situated around the development of the internet in the early 1990's. Within the death and technology studies, this type of approach is perhaps exemplified by the futurist and transhumanist thinker Timothy Leary. As an early adopter of technologies and the internet, Leary's terminal diagnoses of inoperable prostate cancer in the mid 1990's lead him to begin thinking around the topic of dying and technologies. In his book Design for Dying (1997) Leary presented a futuristic vision of a disembodied mind roaming free in the face of death and told his readers "IF YOU WANT TO IMMORTALISE YOUR CONSCIOUSNESS, RECORD AND DIGITISE"(Leary & Sirius 1997, 7).

This belief of immortality thorough digitisation is an early and reoccurring theme that permeates through the early research literature as well. According to media theorist professor Steve jones, it is a representative of a deeper history of how the latest technologies have been repeatedly appropriated by people through time for inscription practices, to record, store, archive and leave behind remains (Jones 2004, 84). Likewise, media had been long considered haunted and able to mediate the dead, who could gain forms of disembodied presence through them (Jones 2004, 83). As the theme and literature around data remains began to develop, the phrases digital afterlife and digital legacy became more commonly deployed, in relation to the massive corpus of data remains. This happened primarily due to wealth of user generated media and the growing acknowledgment of people leaving increasingly large amounts of data in death, that in some form, enabled some presence ofourselves to remain behind (Pitsillides 2012, 1; Haakon, Gulotta & Forlizzi 2012, 1; Gulotta et al. 2013, 1813; Maciel & Carvalho Pereira 2013, 86). As highlighted by Rebecca Gulotta, Hakkon Faste and Jodi Forlizzi in a workshop paper Revelado: Exploring the preservation of our digital data (2012), "people share more information online, and form deep attachments to digital data and artefacts, these virtual objects are becoming more deeply integrated into our lives, and subsequently our legacies" (Gulotta et al. 2013, 1813).

Unlike academia, the internet and mobile industry has been quick to think about data remains and supporting the notion of the digital afterlife. Consequently, a range of software has been developed which can help people to socially live online after death, such as DeathSwitch, DeadSocial or LivesOn, which intelligently mediate and deploy content after the death of an individual. In a similar vein, scholars began to investigate notions such as privacy, control, ownership and broader issues of digital legacy such as bequeathing or stewardship (Pitsillides 2012, 1; Locasto, Massimi & DePasquale 2011, 1; Moncur & Waller 2010, 1; Brubaker et al. 2014, 4157). This work finally provided a recognition that the bereaved are past the point of being manually capable of comprehending the sheer amount of data remains we collectively have (Pitsillides 2012, 1).

Digital Material

While I have given an overview of the current debates and key approaches in the field, I now want to turn to New Media theory in order to introduce a different perspective into death and technology studies. This reconsideration is primarily focused on the materiality of remains and the network they exist within, in order to disturb a common assumption that has dominated popular discourse: the immaterialisation of online culture. This notion of immateriality was situated around popular internet discourse in the 1990's, which conceptualised the internet as the ultimate new frontier, one which possessed amazing qualities that would radically transform the way people could live forever (Van den Boomen et al. 2009, 8).

Visions of virtual realities, cyberspace and hypertext worlds signified – from an utopian perspective – the emergence of a new economy, democracy and novel ways to learn, love and live online. From a dystopian angle, society was being warned about the ever increasing digital divide and the Y2K bug infected our new digital world with apocalyptic visions (Van den Boomen et al. 2009, 8). While very different in their agendas, these different perspectives rose from the same line of technological deterministic thinking, based on the assumed immateriality of the online world (Ellis-Gray & Luján Escalante 2014, 3).

New media was envisioned as offering computer users a way to shift from "the material to the immaterial", where disembodied minds could roam free from material concerns, like decaying and sweaty bodies (Van den Boomen et al.

2009, 8 ; Ellis-Gray & Luján Escalante 2014, 3). It was proclaimed that people were leaving behind atoms for bits, or matter for the mind.

> These lines of reasoning were characterized by what we may call digital mysticism, a special brand of technological determinism in which digitality and software are considered to be ontologically immaterial determinants of new media. New media and their effects were thus framed as being 'hyper', 'virtual', and 'cyber' – that is, outside of the known materiality, existing independently of the usual material constraints and determinants, such as material bodies, politics, and the economy. Though this kind of discourse was criticized right from the start as a specific ideology (Barbrook and Cameron 1995), it proved to be persistent, and traces of it can still be discerned in the current academic discourse. (Van den Boomen et al 2009, 8.)

Within the last 10 years, academic discourse in New Media studies has increasingly moved away from speculative cyber discourse and is now critical of this technological deterministic position (Fuller 2008, 5; Van den Boomen et al. 2009, 8). Instead, the focus has switched to understanding how new media and digital cultures are embedded in entangled ways into everyday life and society (Fuller 2008, 5; Van den Boomen et al, 2009, 8; Mejias, 2011, 1). The internet is no longer considered as existing somewhere disconnected from the world, but is seen instead as being "here and amongst us" (Van den Boomen et al. 2009, 8). In other words, the internet and the digital material is no longer considered immaterial but instead is understood to be in-the material or "In-material", and "intrinsically embedded in physical carriers and containers" (Van den Boomen et al. 2009, 8). Within this reframing, digital remains cannot and do not recognisably live in isolation and disconnected from the material world, but are stored within physical carriers such as hard drives, servers, USB sticks and memory cards.

These material things need power, brought by cables, which connect to laptops or other devices that run programs that can make these remains accessible. Remains exist in this sense within the broader technological systems, not the unified whole of the internet, and therefore exist as part of the "material assemblages of hardware, software, and wetware" (Van den Boomen et al. 2009, 8). Within these systems and networks, the debate of whether technology shapes society or society shapes technology is settled. Instead, we can begin to consider remains as working from an entangled position within a network and ecology, where technology and society mutually and continually determine each other (Mejias 2011, 1).

Within death and technology studies the topic of remains, the materiality of remains and the visibility of the networks in which they are embedded within have particularly suffered from immaterialist discourse, which is why the digital remains have typically remained invisible. Within this reframing, I shall continue to explore the notion of digital remains within the network and noting their ability to invoke the presence of the deceased, for example, the remains created in and around the time of death online, by both the deceased themselves and by others. In the following chapter I will also consider how remains live within a network of software, hardware and wetware that has the capacity to manipulate and reanimate them in unexpected ways.

What Else Remains?

As previously noted, to date there has been considerable discussion around how the bereaved interacts with online memorials or social networking profiles. Yet, if I begin to consider the entanglement of remains existing more broadly, and consider the larger pool of digital remains left behind, how and when they are created, how they become visible,

and in what circumstances, then I can start to envision a complex picture around what actually persists online. This will begin to point towards the presence of data created by the living person just days or hours before their demise, including remains that may have been created in quite difficult or traumatic circumstances such as accidental death, suicide or murder.

In the light of the ease and regularity in how people can generate content through micro-blogging activities on platforms such as Instagram, Twitter and even micro-videos with applications such as Vine, it is perhaps unsurprising how a large amount of auspicious media based remains can be found online from only cursory searches.[6] Encountering these types of remains intensifies when you realise they have been deliberately posted and shared in the hours and minutes before people have taken their own lives[7], accidentally died or were murdered. People link and share these contents and the original material becomes untraceable.[8] These in-material – social presences – can and do attract large amounts of online press and social media attention, as they often exist in spaces that make them easily accessible and open to the public viewing.[9]

The general array of material that is created and abandoned in less auspicious circumstances such as the social profiles, Instagram shots, blogs, Spotify playlists, emails, tweets, location check ins, SMS messages, Flickr albums and charity pages, can raise the contentious issues of etiquette, taste, decency and sincerity in how the living choose the engage with what remains (Ford 2014, 1; O'Connell 2014,1). Yet, as days turn into weeks, the difficulties and tensions found around still encountering these kinds of remains may increase, especially in the light of social presences continuing to coexist with the living online for months and years after physical death, encountering them unexpectedly can surprise or shock the living. For example when the dead begin emailing from beyond the grave, or the deceased are suddenly encountered on social media channels (BBC 2012, 1; Wortham 2010, 1).

This only becomes more acute when presences can seem to slip back into the flow of daily online life. These social fragments and remains easily interfere and disturb the living, especially when they reach out through programming to ask us to be friends online and to reconnect with them such as in Facebook or other social networking websites (Wortham 2010, 1; Ostrow 2010, 1; Cashmore 2009, 1; Hollon 2001, 1). Some presences may begin to like things on Facebook, advertise products, become trending topics, remind us of our birthday commitments, appear in search listings and congratulate us on our new jobs (Meisler 2012, 1; Larson 2014, 1; Garber 2012, 1). This highlights the

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6 There are a number of projects that specifically capture and archive these types of materials. See e.g. thetweethereafter.com or thefamouslasttweets.com (accessed 22nd of May, 2014.)

7 There are numerous news stories where people have turned to social networking platforms to post their final messages. See e.g http://www.theguardian.com/technology/2011/jan/05/facebook-suicide-simone-back (accessed 22nd of May, 2014.)

8 See e.g. photographic material has been known to be lifted and repurposed in ways that can be highly distressing http://www.theweek.co.uk/us/52766/adam-holland-down-syndrome-meme-larry-crain-sue-WHPT-FM (accessed 22nd of May, 2014.)

9 The media has notably discussed this phenomenon around the last posts of celebrities who have died See e.g http://www.channel4.com/news/peaches-geldof-death-social-media-last-tweet-instagram (accessed 22nd of May, 2014.)

notion that, online, the social presences of the dead do not just appear but are continually reloaded, reanimated and even co-opted to do the bidding of where they are stored online.[10]

In reflection, these remains are often very easy to discover and typically live within platforms that are public, searchable and easy to access. They can contain distressing content, if for example they have been created in tragic circumstances and provoke painful memories of things people would rather forget, such as in the case of accidents and violence. This is why I ask, what is the potential of remains to impact upon the bereaved? Unlike previous empirical work of online memorials and mourning in social networking sites, these remains come loaded with the possibility to disturb, disrupt and cause intense emotional pain.

Since the material is engaged within the internet, it means they can be reanimated and controlled in ways that can seem strange and unexpectedly disturb people's sensibilities within the sensitive context of loss. Such as in the case of grief trolling, where individuals harass the bereaved with disturbing material about the deceased.[11] These examples gesture towards the deeper complexity surrounding in-material remains and their potential to mediate between the living and the dead online, and, also, the struggles that occur when the dead appear publicly and in ways that can disturb sensibilities online. It is important that these difficult encounters become visible and accountable within the sphere of death and technology studies in order to give voice to other forms of encounters and experiences the bereaved may have with the dead, but also to help gain an understanding of how the capacities of technologies themselves become visible and their infrastructure is implicated in mediating and shaping these ongoing relations.

Conclusion

While there is an emergent research looking at how remains have the ability to provide a positive focus for loss, provoke memory and invoke the social lives of the dead, there is a range of digital remains and presences that have emerged during my doctoral inquiry that are currently missing from these debates. With this in mind I have aspired to reveal the leading work that has been completed to date on the topic of data remains.

By outlining these current debates, I have moved to challenge the current thinking through introducing interdisciplinary scholarships from new media studies. This has primarily worked to reconsider the notion of digital remains and introduce their materiality within the network. This move has challenged the (in)visibility of what currently remains online when someone dies and introduces the in-material nature of digital remains and their very important role in the lives of the bereaved. This complex entangled picture between digital legacy, mourning practices and grief has been outlined alongside a tentative range of online presences that currently exist but are unrecognised within literature.

This work raises the question: Should research begin to take into account not just of practices of loss, but practices of loss with remains? To think through the in-materiality of remains scattered across the internet and their consequences – both negative and positive – in relation to the lives of the bereaved? Not only would this be a shift away for thinking

[10] In death, data can still be used and sold in line with the Terms and Conditions or End User Licence Agreement that a persona agreed to in life. See e.g. http://www.economist.com/blogs/economist-explains/2013/07/economist-explains-12(accessed 22nd of May, 2014.)

[11] See e.g. http://articles.chicagotribune.com/2013-08-12/news/ct-met-rip-trolling-20130812_1_trolling-rip-tinley-park-family, (accessed 5th of May, 2014.)

of the internet as an immaterial space, it would also be a move to consider the In-material remains as a complex entangled phenomenon around bereavement and mourning.

Biographical note

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