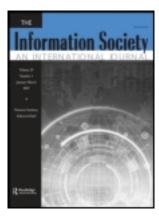
This article was downloaded by: [Wayne State University]

On: 07 January 2014, At: 06:22

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House,

37-41 Mortimer Street, London W1T 3JH, UK



The Information Society: An International Journal

Publication details, including instructions for authors and subscription information: http://www.tandfonline.com/loi/utis20

Millions Now Living Will Never Die: Cultural Anxieties About the Afterlife of Information

Grant David Bollmer ^a

^a Digital Cultures, Department of Media and Communications , University of Sydney , Sydney , Australia

Published online: 03 May 2013.

To cite this article: Grant David Bollmer (2013) Millions Now Living Will Never Die: Cultural Anxieties About the Afterlife of Information, The Information Society: An International Journal, 29:3, 142-151, DOI: 10.1080/01972243.2013.777297

To link to this article: http://dx.doi.org/10.1080/01972243.2013.777297

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at http://www.tandfonline.com/page/terms-and-conditions

Routledge
Taylor & Francis Group

Millions Now Living Will Never Die: Cultural Anxieties About the Afterlife of Information

Grant David Bollmer

Digital Cultures, Department of Media and Communications, University of Sydney, Sydney, Australia

This article examines cultural anxieties surrounding the life and death of online data. Through the examination of a wide range of discourses, including "lifestyle" news articles, online user comments, essays and books by novelists and engineers, and the websites of information management services, I argue that death online—defined as the persistence of informatic remainders after the death of the human user-reveals how networked data are constructed as both an authentic duplicate of identity and as a threat to personal identity that must be managed. Because humans are understood as finite and mortal, while data are immortal and everlasting, the "life" formed out of online data is understood as beyond any possible control of the user. With the death of the user, the perceived connection between the user and data is revealed as a contingency rather than a necessity. Information is produced as autonomous. It is nearly identical to yet separate from the user; it belongs to nobody except, perhaps, the network itself.

Keywords autonomous information, death, Facebook, social networks, ubiquitous recording

All code is burial, and to dwell within the space of code is to be already dead. But then perhaps the opposite is true as well. (Tom McCarthy 2003, 6)

Do they genuinely believe, because the girl's [Facebook] wall is still up, that she is still, in some sense, alive? What's the difference, after all, if all your contact was virtual? (Zadie Smith 2010)

On the pilot episode of the television show *Caprica*, Zoe Greystone, teenage daughter of tech industrialist Daniel Greystone, tells her father:

You can't download a personality, there's no way to translate the data. But the information being held in our heads is available in other databases. People leave more than footprints as they travel through life: medical scans, DNA profiles, psych evaluations, school records, emails, recording, video, audio, CAT scans, genetic typing, synaptic records, security cameras, test results, shopping records, talent shows, ball games, traffic tickets, restaurant bills, phone records, music lists, movie tickets, TV shows. Even prescriptions for birth control. (Aubuchon and Moore 2009)

Zoe tells her father this after she had been killed in a terrorist attack. Before the attack, she had made a digital copy of herself in an online virtual world. Thanks to the sheer amount of data accumulated over her brief life, Zoe created a duplicate by, in the words of her father, taking "a search engine and [turning] it into a way to cheat death." Near-totalized recording had enabled a version of Zoe to be maintained in the distributed cloud of information online even after the death of the "real" biological person. After Zoe convinces Daniel that the avatar online isn't simply a "digital image" but is analogous to a living organism, Daniel runs Zoe's search program to resurrect another girl killed in the terrorist attack, Tamara Adama. Unlike Zoe, seemingly comfortable in the virtual world as a "living" avatar, Tamara panics at her lack of heartbeat. Later, she realizes that within the virtual world she is no longer able to die. On *Caprica*, information online is alive and immortal, while the human body is limited and finite.

Caprica is the origin story of the "cybernetic life form nodes," or Cylons, of the 2003 television remake of Battlestar Galactica, the original tagline of which reads, "Never create what you can't control." Fifty years after Daniel creates the first Cylon by interting Zoe's digital self into a militarized robotic body, the Cylons have evolved into a race of robotic life engaged in a perpetual war with humanity. The minds of Cylons may have originated out of information produced by human bodies. But this information is beyond human control, a threat to the very existence of humankind.

[©] Grant David Bollmer

Address correspondence to Grant David Bollmer, University of Sydney, Holme Building A09, NSW 2006, Australia. E-mail: grant.bollmer@gmail.com

Our own everyday relationship to digital information and recordings, networked in the various clouds online, from Facebook profiles to the websites of financial services, seems to mirror the narrative of Caprica. Through discourses and cultural practices, from user comments about death on social networks to the writings of engineers, data are constructed as a double of personal identity that exists beyond the conscious control of the user. Online information produces cultural anxieties, as it is understood as autonomous and separate from the human body. Beyond the fictive world of Caprica, services have been created to either manage or delete online data, such as Vanish, Suicide Machine, and Legacy Locker. These websites and algorithms legitimate themselves through the claim that online data must be either managed or killed off. In this discourse, our online selves are immortal, exceeding any possibility of management, unless we kill our data before we ourselves perish.

This article examines popular cultural anxieties surrounding the life and death of online data. Through the examination of a wide range of discourses, from "lifestyle" news articles, the user comments responding to these articles and other blog posts, essays and books by novelists and engineers, and the websites of information management services, I argue that death online—by which I mean the persistence of digital user data after the user has passed away—reveals the relationship humans have with their online data as increasingly tenuous. Networked data are constructed both as an authentic duplicate of identity and as a threat to personal identity that must be managed.

Marshall McLuhan (1964), among others, has famously argued that technology extends and shapes the sensory and cognitive capabilities of the human body. Network technologies are "extensions" of the human body that create a technological collective through connectivity. As with technological extensions, data are often constructed as essentially connected to identity and the human body. Some technological utopians, following McLuhan, imagine that in the future we will be able to upload our own consciousness online, effectively creating immortal living selves out of data removed from our physical bodies (Moravec 1988; Kurzweil 2005). Discourse derived from cybernetics and bioinformatics defines the essence of life as a mathematical pattern of organization—the scientific definition of "information"—discursively transforming "life" into little more than disembodied code, able to exist in any formally compatible material substrate (Hayles 1999; Thacker 2004). As in *Caprica*, which echoes these dreams, there is something essential about our identity encoded in recorded and networked data. In this discourse, massive amounts of data can be animated online, accumulated through the proliferation of networked media in daily life, fully reproducing identity while divorced from the human body. Information that seems alive is assumed to be a mirror of the living, if not the purest essence of life itself. Anxieties about death online are related to fears of technology detaching from the human body and existing for itself. Not only are there anxieties about the loss of the body. In the various discourses surrounding death and the management of personal data, there are also fears that the human will be replaced by data that can fully represent identity and self. Both utopian and anti-utopian perspectives on death and data construct data as a full and authentic representation of the self. This additional self either transcends the body or must be managed as to not exceed the control of the body.

In what follows, I first briefly review literature on technological recording, death, and the relation between the human body and online data. The use of recording to re-present the deceased is nothing particularly new. Yet there is a significant amount of literature in the humanistic and theoretical study of technology that suggests an essential connection between technology, information, and the body. Since data persist after the death of the human user, understanding our relation to data and death cannot assume these connections as inevitable. From here, I examine discourse surrounding the death of users of social networks and financial websites. This discourse demonstrates that there is a fundamental disconnection between users and their data. When the legal and technological structures of these websites are taken into consideration, it becomes clear that the connection between the user and the user's information is tentative at best. Connections must be maintained through the active management of data. Networks have no way of distinguishing between the living and the dead, and, as a result, end up treating online data as divorced from the user to which it supposedly belongs. After death, as it becomes difficult or impossible to manage online data, data are positioned as autonomous and beyond the control of the human body. Finally, I relate this disconnection to the general management of networked recorded data. Online data are positioned as other to human experience and the self. As there is a fundamental disconnection between the user and data, data are to be managed or outright deleted because of the believed autonomy of networked information. However, these online data are also understood as an almost complete representation of the real human being. Taken together, the recording of data then uploaded to social networks is, to paraphrase the *Battlestar* slogan, the creation of that which we cannot control. Information is positioned as an autonomous life, nearly identical to yet separate from the user; it belongs to nobody, except, perhaps, the network itself.

It is important to remember that many claims about technology, especially in the form of utopian or antiutopian arguments about the future, are not about the actuality of technology. Instead, they articulate a social

vision that constructs the limits and possibilities of technology in contemporary society, in spite of any actual material limitations and potentialities of technology (cf. Kling 1996). Much of what I discuss in the following is no exception. The possibility of data existing forever is predicted in spite of current limitations on digital storage. Given constant changes in software protocols and standards, not to mention the very real possibility of hardware failure, the existence of data depicted in *Caprica* and what I discuss next does not simply arise from the current potentials of network technology. Nonetheless, discourse about technology has significant force in producing the "truth" of the everyday relations that individuals have with technology (cf. Foucault 1972; Fairclough 1992). This article is ultimately about how a specific discourse about death creates a way of understanding humanity, life, and identity in relation to the material potentials of new technologies of near-ubiquitous recording. This discourse, lived and sustained through cultural practices and technological relations, is both constructed and "true." Our relation to technology and the future direction of the technological are both produced through discourse.

RECORDING TECHNOLOGY AND THE AFTERLIFE OF SENSORY DATA

Technologies have always externalized sensory data, transforming human consciousness and conceptions of the self. Writing transforms our memory, reshaping humans as individuals and as social beings (Ong 1982; McLuhan 1962). Radio extends what we can hear; television extends what we can hear and see (Weber 1996; Meyrowitz 1985). Network technology is understood to create a networked self, in which our cognitive and perceptual capabilities are distributed beyond the limits of the body into "paraselves" that overlap with others. The history of technology is one in which memories and thoughts are externalized, necessarily conjoining the human with technologies beyond the skin (Clark 2003; Stiegler 1998). We are, in the words of Brian Rotman (2008), "becoming beside ourselves" with network technology, externalizing so much data that our "bodies" exist as networked information, hybridized with the technological (cf. Mayer-Schönberger 2009; Lévy 1997; Bell and Gemmell 2009).

Each new technology, which stores and externalizes sensory data in a new way, is also seen as that which makes present specific remainders of those who have passed on. Recordings show us death in the "future anterior," as having already happened but nonetheless infinitely deferred into the future (Barthes 1982). Phantoms recorded by photography and "voices" transmitted by telegraph are seen not as technical interference, but as spirits haunting the machine. The sounds emerging from the static of the radio are interpreted as emanating from another plane of

existence where those who have passed on are still alive (Derrida and Stiegler 2002; Peters 1999; Sconce 2000). Audio recordings of the living have been advertised as heirlooms for the bereaved to bring the deceased back to life, "resonant tombs" through which communication can occur beyond the grave (Sterne 2003). Technological recordings are somewhere between the living and the dead, animating, as if living, that which is left behind by those who are no longer. The recordings that transform our own conscious relations to ourselves also transform the relations others have to our ultimate absence.

That data can be separated from the body, however, is a notion often critiqued in studies of new media. A body, it is argued, is necessary for the phenomenological experience of the world itself. The human is fundamentally bound up with embodied experience at both a cultural and cognitive level (Hansen 2006). Regardless of the believed disembodiment of an online avatar, there is, it is assumed, a real person at the other end of the virtual connection (Stone 1991). Utopian arguments embracing a digital consciousness separated from the body repeat a form of Cartesian dualism central to modern thought (Hillis 1999).

Yet the separation of the body from the recordings that identify is not particularly new, either. Older technologies, such as passports, create "selves" and "identities" divorced from the human body. These selves must be managed as representations that are simultaneously authentic yet opposed to the "real" body (Robertson 2010). Online databases produce an additional identity that fixes and stabilizes a subject's identity. Individuals do not internalize the parameters of their identity, but are technologically produced through the digital cataloging of a multitude of "dispersed identities, identities of which the individual might not even be aware" (Poster 1995, 93). These technologies of representing the self are not mirrors. They produce and limit the possibilities of identity through technologies that define "true" selves (cf. Foucault 1977). But equating data, be it of a passport or a database, to the ontological foundations of human life is contextually specific. Information technologies are not assumed equivalent to "life" unless they are positioned within a discourse that defines data as living. Part of the contemporary "posthuman" condition is, however, the discursive equivocation of life with information—and, according to N. Katherine Hayles, people "become posthuman because they think they are posthuman" (1999, 6). Discourse that delineates the essence of life as disembodied data produces behaviors, beliefs, and anxieties experienced in the everyday relations that individuals have with technology (also see Hayles 2005). At least since the emergence of cybernetics, a scientific and popular discourse about technology has come to define recorded data as the essence life. While the complete loss of the body is most likely a misleading dream of technologists, the power of discourse to order human beliefs and behaviors toward the technological cannot be dismissed so easily.

LIFE AFTER DEATH ONLINE

That technology seems to bring the deceased back to life is not something unique to network technology. Recordings have always animated traces of the deceased. What is new about network technology is the belief that the amount of data recorded and externalized gives a nearly full representation of the authentic identity of the human being. It is not simply the presence of the deceased that causes anxiety, but the supposed fullness of that presence, formed by near-totalized recording, networked and beyond the control of the user.

As it is represented in *Caprica*, a desire for totalized recording should be articulated to a desire for everlasting life. Information lives forever while the human body withers away. That online information can exist as a life entirely separate from the life of the user can be most clearly seen in the online management of information left behind by users who have passed on. Online services have been developed to manage information in the case of death, in part because there is no real way to distinguish between the living and the dead online. A social networking profile of the living can appear exactly the same as one of the deceased. There is no box to check to indicate life or death, as there is for gender or sexuality. Being part of the online cloud of networked information involves signing over personal information to private, for-profit services under legal contracts that give the service free rein over data that are often assumed to still be part of "ourselves" and still owned by "ourselves." Thus, in the face of death, online information is revealed not only as a separate from that of the user, but as controlled and possessed by the network itself.

Social networking websites are developing standards and protocols for dealing with pages of the deceased, as currently they end up automated and treated like pages of those still living. In the user comments for an online New York Times article on the management of information of deceased Facebook users (Wortham 2010), one writer notes that Facebook continues to use the image of the deceased after the user has died, like the image of any other user: "My brother died in April 2010 and we [sic] keep getting suggestions to catch up, write on his wall, or send him an email. If only I could do that. They're not comforting." Others have quite different stories. One writer unexpectedly received a friend request from someone who had passed away 20 years earlier. It turned out that the sister of the deceased had set up a profile for her brother in spite of his passing. As initially jarring as the experience was, the author claims, "I know for me it was nice to see his face again some twenty years after he left us." Another Facebook user who regularly visits a page to memorialize her deceased brother states, "To be haunted virtually is just another way to stay connected." Regardless of how these users interpret the experience of being haunted by digital information on Facebook, there is an afterlife of data, sometimes animated by the code of Facebook, sometimes animated by family members. While the user may have passed on, the user's information persists much longer.

For some, these pages are inauthentic versions of the self, detached and left behind after the demise of the user, animated *only* by the code of the network. The novelist Zadie Smith (2010), in an essay for the *New York Review of Books*, has argued that the interactions with the deceased online are symbolic of a more generalized devaluation of human life. For Smith, we treat people like Facebook pages and Facebook pages like people, leading to an inability to grasp the meaning of death when someone actually dies. Because we interact with Facebook pages in the same way regardless of if the other is living or deceased, our own relation to the other's life makes little distinction between the two.

For Smith, death on Facebook reveals a fundamental disconnection between all human relations in an age of social networks. For those who find solace in these pages, on the other hand, they enable a connection to a real self that has been fully captured by digital recording. Being haunted is an authentic way to keep in contact with those who have passed on. Even though these positions come to opposite judgments, they both argue that with social networking, information and the human can be perceived as the same thing. Regardless of ethical or moral position, human beings and online information are equated as the same.

These beliefs are complicated when legal and economic issues are brought into the discussion. Another *New York Times* reader, whose deceased mother ran a nonprofit organization managed through Yahoo!, writes that

despite my having her death certificate, her valid will, and being the executor of her estate, because there was no provision for these circumstances in Yahoo's terms of use agreements, Yahoo's legal department insisted that unless I came back with a court order, I had no rights to access her account. This officious stonewalling made a difficult and painful time for my family much harder than it had to be, and caused the web site for the non-profit organization to shut down for months.

Like Yahoo!, social networking sites are having a hard time creating policy for dealing with these pages of the dead. As others often communicate with the departed as if they were still present, using social media profiles as storehouses of objects to remember the deceased, a simple deletion policy doesn't seem to work—especially when the network (and other users) cannot tell the difference

between a living or dead individual. For the algorithms that undergird social networks, there is no clear functional difference between a living user and deceased one. And the legal contracts digitally signed upon joining a service often have few provisions in the event of death. As of 2004, MySpace's policy for pages of deceased users is to either leave a page as it is, unmoderated, uncontrolled, and open to the use of exploits from spammers and hackers, or to completely delete the page if so requested by family members. Friendster, when it was still a social network and not a social gaming website, included in its user agreement a legal contract that would prohibit the deletion of a user's profile without express consent. On the occasion of death, the profile would be removed only if an immediate relative requested its deletion, alongside written proof of death (Boddy 2004). As we can see from the preceding example, some websites leave the information separated and disconnected from human users in spite of its continued network presence.

The management of these pages is still a source of anxiety, as the life of information is beyond the control of both the deceased and their family. While the personal practice of memory appears to enable kinds of connection after death, the legal and economic structure of social networking and online services reveals a fundamental disconnection between online information and the self. This disconnection must be managed to prevent loss of control over online information and identity, to the detriment of the personal and financial safety of the family of the bereaved. Legacy Locker is a private pay service explicitly designed as a kind of digital "storage facility" for a user's passwords in the case of death or disability. According to a quote excerpted on the Legacy Locker website, "Passwords and usernames are the worst part of digital living . . . They can permanently shut out family and friends from crucial assets and communications after someone dies" (2010). Information protection through passwords and usernames can serve as a barrier preventing an individual from accessing their own "property" online. After death, they can permanently prevent any user from accessing personal online data. If we are supposed to be connected to our online information, passwords are a constant reminder that we are, in fact, separated by the mechanisms of the network.

Legacy Locker advertises itself as a service for families along with estate and financial planners. On its information page for the latter, the service claims that

While the work you do today helps your clients prepare their physical assets, there's virtually nothing in place for dealing with online assets. By now you've probably already experienced a circumstance where a bereaved client has tried to gain access to the online accounts of a loved one who has passed away, and found that many online companies and websites are ill prepared or simply unwilling to grant access to anyone but the account holder. (Legacy Locker 2010)

Again, there is the assumption that the body and digital information are somehow connected. But when the connection between the body and online data disappears through death, then websites are unsure how to proceed. Data are constructed as belonging to the family after death—though passwords can prevent the family from possessing what is believed to be rightfully theirs. Legacy Locker is little more than a repository for passwords—ultimately the dominant signifier of the connection between bodily identity and digital information in a society based around information technology (cf. Deleuze 1995, 180). The password, however, is a negative connection, in that it connects a user to online data only by keeping out all other users. Even if the user is alive, a forgotten password reveals how tentative the actual connections between the user and data can be. After death, passwords demonstrate that information is isolated and separate from the living.

Facebook has recently instituted a policy of "memorializing" profiles of the deceased, where the profile would be restricted, taken out of search results and cut off from major changes, but remain accessible to others already identified as friends. This policy was not designed specifically to deal with these pages of the dead sympathetically, as it was primarily a response to a new version of Facebook's homepage that would suggest that users "reconnect" with other users. In the upper right-hand corner of one's Facebook home screen, the service would list another user with whom one hadn't communicated with through Facebook in some time, urging the user to reconnect with the other. As the network has no way of differentiating between profiles of those living or dead, some of these suggestions would be to reconnect with those who had passed on (Fletcher 2009). The memorialize feature was implemented precisely to avoid this problem, giving the network the ability to mark one as living or dead while shutting off some features of the deceased's profile in the name of respect. This move has actually angered many users, as they can no longer communicate with the deceased as they had previously—through the posting of videos, images, and links to the "wall" of the dead. In the many user comments on Facebook's page explaining the memorialize feature, there are repeated laments about the restriction of access to these pages and also repeated grievances from family members and widows complaining of the loss of control over these pages, as any single "friend" can effectively turn a page into a memorial. If someone else memorializes the page, then the wishes of the family may have been violated (Kelly 2009). And this is not to mention that the memorialize feature has been subject to pranks, fabricating the death of users, in at least one case locking a user out of his own account without any way to prove that he was alive (Wortham 2010).

These debates highlight how data uploaded to social networking websites are assumed as owned by the person who produced the information in the first place. In the case of death, that ownership would be transferred to the surviving family. Yet this is explicitly not the case, as defined clearly (if buried in legalese) in the Terms of Service agreement to which all social networking users are required to agree. Facebook's Terms of Service, as of February 2009, grants Facebook a complete license "with the right to sublicense" to "use, copy, publish, stream, store, retain, publicly perform or display, transmit, scan, reformat, modify, edit, frame, translate, excerpt, adapt, create derivative works and distribute (through multiple tiers)" anything any user posts on Facebook. Facebook even retains the right "to use your name, likeness and image for any purpose, including commercial or advertising" in any connection whatsoever with Facebook. While Facebook claims that this does not mean that they "own" your data, the language employed by the agreement is quite slippery in delineating just what Facebook can and cannot do with whatever is uploaded to the service (Walters 2009). While most social networks seem to be willing to comply with the wishes of the bereaved, they are under no legal obligation to do so, as anything uploaded to the social network, including the user's very name, is controlled by the network, not the user. Our "connection" to the deceased is entirely mediated through data, unconnected with the user, but legally and economically possessed by the owners of the social network (cf. Poster 1995). While users of social networks often treat profiles as authentic representations of the human being (regardless of the devaluation of human life or not), death reveals that the connection between the user and their information is a connection that is actually managed by the user rather than an "authentic" or natural connection.

MANAGING ANOTHER SELF

Death reveals how tentative our connections to data can be. The connection between the user and their online information is never a given, but is instead something that must be managed. Yet much of the discourse about online death assumes an equivalence between the user and their online data. Even when we are alive, however, our information is discursively constructed as something other to the human body and embodied consciousness of self. The persistence of data after death should also be understood in the context of data as an entirely separate life from the human, with its own agency that cannot be controlled by the human user.

Like Legacy Locker, other online services, Vanish and Suicide Machine, have been created to manage users' online information. Unlike Legacy Locker, these services are designed erase data that are beyond the control of the user while the user is still alive. They make themselves le-

gitimate by arguing that information online enables connections that should be feared. Living online entails a disruption of privacy and opens users up to legal and emotional threats from others because too much is shared and recorded. Parts of the self one wishes to hide become exposed, acting counter to the will of the individual. These fears coincide with a discourse that equates these digital traces with the essence of human identity. This second discourse claims that the recording of online data can help us understand and manage our own lives better and more efficiently. Online information gives us a full picture of the real self invisible to our own sense of self-identity. And from this recorded real self, human lives can be resurrected thanks to the technological—not by uploading human consciousness to a computer (as is often argued), but through totalized, networked recordings that capture the essence of what makes a human a human. The sheer accumulation and storage of information from a living body is enough to functionally reproduce a living person. Thus, while advocates of networked recording argue that it shows us the truth of our own identity, for ourselves and for others, the first position sees this recording as a surrender of privacy and human agency to machines. Both of these discourses position online data as something other to human consciousness and control. Either online data are beyond the control of our own attempts to compartmentalize our various performances of identity (cf. Goffman 1959), or they are an expansion of experience unable to be grasped by consciousness. The life represented online is fundamentally different from the life consciously experienced through embodied perception; it may be more complete, but it is also beyond the conscious will of the individual.

Vanish, a research project at the University of Washington, states on its Web page:

Computing and communicating through the Web makes it virtually impossible to leave the past behind. College Facebook posts or pictures can resurface during a job interview; a lost or stolen laptop can expose personal photos or messages; or a legal investigation can subpoena the entire contents of a home or work computer, uncovering incriminating or just embarrassing details from the past. (Vanish 2010)

Vanish is a computer algorithm designed to delete data, either saved on a computer or uploaded to the Internet, after a set period of time. As in the preceding quote, the Vanish research team argues that the data on these websites, as they are never truly deleted, could arise like specters from the past, compromising the present. Sensitive personal information should remain secret from others. Financial information could, if it escapes control of the user, lead to identity theft and fraud. Recorded data are liabilities because they inherently contain the possibility of making public that which the user keeps secret. Data have a will of

their own, often counter to the will of the user. This is perhaps a different way of thinking of Stewart Brand's often quoted line that "information wants to be free." Networked data do not disappear into the past as forgotten memory, but collapse private pasts into the present through the accumulation of data, data that seem to have their own desires, counter to those of the user. "Our research," state the developers of Vanish, "seeks to protect the privacy of past, archived data—such as copies of emails maintained by an email provider—against accidental, malicious, and legal attacks" (Vanish 2010). Vanish's very existence is based around the notion that online information, while personal and assumed to be connected to the user, is in fact separate and beyond the control of even the most vigilant. The private information hidden behind passwords or on a personal computer cannot be assumed to remain private. Not only is information disconnected from the user, it possesses its own autonomy that can attack the reputation and financial standing of the user to which the data supposedly belong.

Similar to Vanish, the Dutch website Web 2.0 Suicide Machine is a service that deletes a user's social networking website data. Unlike Vanish, Suicide Machine deletes all of a user's data as soon as the user signs up. Suicide Machine presents itself like an infomercial. Its website reads:

Wanna meet your real neighbors again?... You want your actual life back? Sign out forever!... Unfriending has never been this easy! Stop Self-Procrastination! Isn't time really precious nowadays? So many people you don't really care about... Improve your relationship! Get rid of stalkers! Watch your 2.0 life passing by! Say good-bye with dignity! You can do it. It's so easy! May you rest in a better Real Life! (Web 2.0 Suicide Machine 2010)

Suicide Machine has been more popular than its creators had planned. In the month after it launched, from December 19, 2009, to January 19, 2010, it had "assisted more than 1,000 virtual deaths, severing more than 80,500 friendships on Facebook and removing some 276,000 tweets from Twitter," often crashing the website from an excess of activity (Yan 2010). In the context of the vast size of social networking websites, this is not exactly a large number. Nonetheless, Suicide Machine is still understood as a threat to social networks. Facebook, as of January 4, 2010, had blocked Suicide Machine and served its programmers with cease-and-desist orders, which were then posted on Suicide Machine's website as it attempted to find a way around the block (Colker 2010).

Vanish and Suicide Machine are services that depend on common fears of technology and surveillance. Living an entire life in public view is not immediately attractive to many. Too much information is made public, which can damage the reputation of the user. The things we would like to keep private are forced into the public, intrinsically, with the proliferation of recording devices and the popularity of social networks used to share these recordings. But also, too much time is wasted on social networks. The fascination with the private lives of others is a distraction. Friends on social networks are not real friends. Time that could be spent maintaining real, fulfilling relationships is instead frittered away surveilling others, monitoring those recordings that reveal what once was private. Seeming to echo Guy Debord (1994), connections based in obsessive visual fascination and spectacular consumption have replaced authentic human relations. We not only manage our own lives: The connections enabled by social networking do little more than compel us to continuously manage, or at least observe, the lives of others.

While Suicide Machine casually appropriates rhetoric usually associated with a positive perspective on euthanasia, this discourse could only make sense in so far as the life online is considered separate from the life of one's body—and the life online is debased when juxtaposed with the assumed reality of a life unmediated by social networks. In response to the question "What should I do after I've killed myself with Web 2.0 Suicide Machine?" the programmers of Suicide Machine offer the following response on their Frequently Asked Questions page:

Try calling some friends, take a walk in a park or buy a bottle of wine and start enjoying your real life again. Some Social Suiciders reported that their lives has [sic] improved by an approximate average of 25%. Don't worry, [sic] if you feel empty right after you committed suicide. This is a normal reaction which will slowly fade away within the first 24–72 hours. (Web 2.0 Suicide Machine 2010)

The emptiness of feeling disconnected is something that Suicide Machine acknowledges and attempts to normalize. Technological mediation isn't completely eschewed, but connection via social networking is somehow false compared to other real connections. Feeling disconnected is something that can be remedied through the telephone, nature, and friends. After your online self is killed off, the connections fostered by the network are severed, leading to temporary emotional emptiness. But this is only passing, as those connections were never real. Any emotional emptiness is a result of the opening of possibilities for the user's life. The severing of social network connections through "suicide" is an embrace of the potentiality and freedom that comes with eliminating the need to constantly manage the online self. These services construct a reality where online information is beyond control of the user and, thus, detrimental to the user's real life. A user's Facebook page is an evil twin that should be killed off to save the life of the real person who (mistakenly) thinks that he or she is connected to others. Real connections are obscured by the constant management of the social network's false ones.

The designers of Vanish and Suicide Machine argue that the online self produced by recorded data is separate and detrimental to the user because it makes public aspects of a user's identity that the user would wish to remain private. Conversely, advocates of the totalized recording of our entire existence, such as Microsoft researcher Gordon Bell, who refers to online data of human identity as "e-memory," argue that new technologies of recording and social networking will enable a greater connection with the past and a greater understanding of our own self-identity, even after death. Totalized recording does not lead to the production of a false self beyond our conscious control, but to a greater awareness of who we really are. The things we want private we not only try to hide from others, but from ourselves as well. With a totalized record of one's time on earth, stored via technological means, Bell claims, resonating with Caprica, that "it will be possible to generate a virtual you even after you are dead. Your digital memories, along with the patterns of fossilized personality they contain, may be invested into an avatar...that future generations can speak with and get to know" (Bell and Gemmell 2009, 6; also see Blascovich and Bailenson 2011). Those who survive our death will still come to know us because of the sheer amount of information we have left behind. While, for Bell, this information is not itself conscious, it can be animated to imitate interactions with a living human. "We will maintain the e-memory of that person as a treasured heirloom. And, someday, we will ask it questions. The e-memory will answer. You will have virtual immortality" (Bell and Gemmell 2009, 139).

For Bell, questions of control and ownership of data are irrelevant. Self-identity is permanently connected to information. We *are* recorded data for Bell. Recorded data are not abstractions or distortions. They are the very essence of our identity, speaking the truth of the human. Our real selves are invisible to phenomenal experience, expressed only in externalized data. Likewise, projects such as Kevin Kelly and Gary Wolf's The Quantified Self see the massive amount of recorded data placed online—and technologically quantified—as something that will help "improve" our relation to ourselves:

Real change will happen in individuals as they work through self-knowledge. Self-knowledge of one's body, mind and spirit. Many seek this self-knowledge and we embrace all paths to it. However the particular untrodden path we have chosen to explore here is a rational one: Unless something can be measured, it cannot be improved. (Kelly 2007)

Referencing the desires of Lord Kelvin, Kelly and Wolf believe that the data we upload and externalize are projected back toward us, enabling each individual to work on and manage her own existence through via a personal Taylorism of identity. Data recorded and quantified tell us more about ourselves than conscious experience ever can.

According to Bell, when data are uploaded to the Internet, "your data becomes [sic] untethered from particular devices. Your e-memory follows you wherever you go, accessible from any device you happen to be using. You, not your desktop's hard drive, are the hub of your digital belongings" (Bell and Gemmell 2009, 10). Information on the Internet is more connected to one's body than information on private, personal devices for Bell. In the cloud, information becomes mobile in the placeless, totalized space of the Internet, rather than anchored to, say, a desktop computer. Death again calls these connections into question. For Bell, online data are the essence of human life. The production and management of life is not inherently related to the body or the biological. While Bell suggests that an avatar can be an immortal "body" for data, it need neither be biological nor conscious. For something to be living, it only needs to be animated. Since Bell, along with the psychologists Jim Blascovich and Jeremy Bailenson (2011), predicts that personal data will eventually be animated in an everlasting avatar, the "immortality" of data is based only in the seeming performance of a moving digital "body." Others, such as futurist and inventor Ray Kurzweil (2005), even argue that the data we record will achieve self-consciousness at some point in the near future, a point he refers to as the "singularity," when the biological and technological fully converge. As it is represented in Caprica, our self could be transferred to an online avatar constructed entirely out of recorded memories, made living because of its mobility. The difference between these two discourses is the relation of recordings toward the self. Is the self that we see online the "real me"? Or someone else? Is that which is captured by digital recording a true or false representation? Some of these concern echo much older observations by Erving Goffman (1959) and Joshua Meyrowitz (1985)—people are used to performing multiple personas, some for public view and others for private. Yet, counter to theorization of online identity written in the 1980s and 1990s that stressed the anonymity of the online avatar and the mutability of the performance of identity, social networking and the availability of recorded information potentially collapse everything into the public into one, single "authentic" performance realized online rather than in daily life (cf. Bollmer 2012).

Daily interactions only capture a partial performance of identity. Changing that performance depending on context is considered to be the task of a fraud and a fake. In the words of Facebook's founder, Mark Zuckerberg, "The days of you having a different image for your work friends or coworkers and for the other people you know are probably coming to an end pretty quickly.... Having two identities for yourself is an example of a lack of integrity" (cited in Pariser 2011, 109).

The networked self is not the autonomous, self-controlled individual posited by classical liberalism, but

is instead part of a series of connections that necessarily entail giving part of something we call identity over to technological services. Both discourses position digital information as other to the human body that the information assumedly represents. The management of the self is not simply about the management of the body and identity into a number of different performances of self. It is about the management of networked connections to a recorded other that is fundamentally different and beyond the control of human consciousness.

For those that embrace digital recording and the networking of data, the online self is a projection of identity invisible to conscious experience. It captures the totality of self, beyond the partial representations we reveal to ourselves and to others in our daily, compartmentalized performances of identity. We cannot truly know ourselves without the tools that network and quantify our lives through constant connection to online services. The real person is the one online, different than our own understanding of self from conscious experience, beyond the control of our conscious will. Managing our connections is the only possible way to ever know who we are, as data represent identity more fully than embodied consciousness. For those who fear information online, the online self is an identity that reveals too much. Information online exceeds conscious control, thus leading to fears of connection, as connecting to others negates the ability of the individual to consciously construct his or her own performance of identity. Regardless, both discourses actually suggest that there is no direct correspondence between the perceived self-identity of user and the user's online information. Instead, there is a fundamental disconnection between the human being and digital information on social networks. The evaluation of networking and recording as either beneficial or detrimental depends on which self one believes to be "authentic," not on whether one believes there to be a connection between the two. And in both cases, online data reveal more about our own identity than conscious contemplation ever could.

CONCLUSION

Spinoza once asked the question, what can a body do? One such thing is clear—a body can die. But what can data do? In the discourses discussed earlier, data can live forever. Data can act without conscious input from their creator, and often, it is believed, at cross purposes to their creator's own desires. In television shows such as *Caprica* and in techno-fantasies such as the so-called "singularity," one must die so the other may live. The human and data are presented as antagonists. Either data are attempting to annihilate humanity or data are evolutionary successors to humanity. This certainly informs some everyday anxieties about the networking of recorded data. But other

anxieties, which resonate with comments from social networking users and the services they use to manage their online lives, would be similar to those of Zadie Smith or Tom McCarthy—what happens when we cannot tell the difference between one who is living and one who has passed away? What happens if the representation of the body as data, as detached from the body, is one in which death cannot be represented? If it is, in effect, a difference that makes no difference? What happens when data are assumed to authentically represent the human, in spite of, or because of, its disconnection from the human body? We are not essentially connected or networked to our data. Nonetheless, the contemporary discourse of social networking defines online data as the essential representation of the human being. Our social networking profiles are more real than our conscious knowledge of our own selves. The anxieties of disconnection suggest a larger fear that humans are gradually becoming insignificant in the face of technological networks because data matter more than people.

With whom are we communicating when we communicate over social networks? My own impulse would be to suggest that we're communicating with data themselves—not with any particular user that the data supposedly represent (cf. Myerson 2001). The afterlife of information on social networks shows us that, at a very fundamental level, data and the human body do not inherently correspond. This is a common attribute to media in general, as recordings always animate the traces of lives past. The near-ubiquitous forms of recording and the networking of that data, which are specific to the present moment, together lead to a discourse in which recorded data are a more complete representation of self than can be grasped through our own conscious understanding. In this discourse, our true selves live in the online cloud of information, disconnected from our bodies, beyond any possible conscious control from the user supposedly represented by that information. While this image of the future may excite some, it causes anxiety for many. If this discourse will, in part, shape the future possibilities and uses of recording technology, we must also understand how everyday anxieties will also come to define our future relation to technology as well.

REFERENCES

Aubuchon, R., and R. D. Moore. 2009. Pilot. *Caprica*. Television. Directed by J. Reiner. Los Angeles, CA: Universal.

Barthes, R. 1982. *Camera Lucida: Reflections on photography*. Trans. R. Howard. New York, NY: Hill and Wang.

Bell, G., and J. Gemmell. 2009. *Total recall: How the e-memory revolution will change everything*. New York, NY: Dutton.

Blascovich, J., and J. Bailenson. 2011. Infinite reality: Avatars, eternal life, new worlds, and the dawn of the virtual revolution. New York, NY: William Morrow.

- Boddy, R. 2004. Ghosts in the machines: What happens to your online self when you die? *Baltimore City Paper*, June 30. http://www2.citypaper.com/news/story.asp?id=8182 (accessed May 26, 2012).
- Bollmer, G. D. 2012. Demanding connectivity: The performance of 'true' identity and the politics of social media. JOMEC Journal 1. http://www.cardiff.ac.uk/jomec/jomecjournal/1-june2012/bollmer_connectivity.pdf (accessed March 18, 2013).
- Clark, A. 2003. Natural-born cyborgs: Minds, technologies, and the future of human intelligence. New York, NY: Oxford University Press.
- Colker, D. 2010. Facebook fights back, disallows the Suicide Machine. Los Angeles Times, January 4. http://latimesblogs.latimes.com/technology/2010/01/facebook-fights-back-disallows-the-suicide-machine.html (accessed November 4, 2010).
- Debord, G. 1994. *The society of the spectacle*. Trans. D. Nicholson-Smith. New York, NY: Zone Books.
- Deleuze, G. 1995. Postscript on control societies. In *Negotiations:* 1972–1990, trans. M. Joughin, 177–82. New York, NY: Columbia University Press.
- Derrida, J., and B. Stiegler. 2002. Echographies of television: Filmed interviews. Trans. J. Bajorek. Malden, MA: Polity Press.
- Fairclough, N. 1992. *Discourse and social change*. Cambridge, MA: Polity Press.
- Foucault, M. 1972. The archeology of knowledge and the discourse on language. Trans. A. M. Sheridan Smith. New York, NY: Pantheon Books
- Foucault, M. 1977. *Discipline and punish: The birth of the prison*. Trans. A. Sheridan. New York, NY: Vintage.
- Fletcher, D. 2009. What happens to your Facebook after you die? *Time Magazine Online*, October 28. http://www.time.com/time/business/article/0,8599,1932803,00.html?CNN=yes?artId=1932803?cont Type=article?chn=bizTech (accessed November 4, 2010).
- Goffman, E. 1959. The presentation of self in everyday life. New York, NY: Doubleday.
- Hansen, M. B. N. 2006. Bodies in code: Interfaces with digital media. New York, NY: Routledge.
- Hayles, N. K. 1999. How we became posthuman: Virtual bodies in cybernetics, literature, and informatics. Chicago, IL: University of Chicago Press.
- Hayles, N. K. 2005. My mother was a computer: Digital subjects and literary texts. Chicago, IL: University of Chicago Press.
- Hillis, K. 1999. Digital sensations: Space, identity, and embodiment in virtual reality. Minneapolis: University of Minnesota Press.
- Kelly, K. 2007. What is the quantified self? *The Quantified Self*, October 5. http://www.kk.org/quantifiedself/2007/10/what-is-the-quantifiable-self.php (accessed November 4, 2010).
- Kelly, M. 2009. Memories of friends departed endure on Facebook. *The Facebook Blog*, October 26. http://blog.facebook.com/blog.php?post=163091042130 (accessed November 4, 2010).
- Kling, R. 1991. Hopes and horrors: Technological utopianism and antiutopianism in narrative of computerization. In *Computerization and* controversy: Value conflicts and social choices, ed. R. Kling, 40–58. San Diego, CA: Academic Press.
- Kurzweil, R. 2005. The singularity is near: When humans transcend biology. New York, NY: Viking.
- Legacy Locker. 2010. Legacy Locker: The safe and secure way to pass your online accounts to your friends and loved ones. *Legacy Locker*. http://legacylocker.com (accessed November 4, 2010).

- Lévy, P. 1997. Collective intelligence: Mankind's emerging world in cyberspace. Trans. R. Bononno. Cambridge, MA: Perseus Books.
- Mayer-Schönberger, V. 2009. Delete: The virtue of forgetting in the digital age. Princeton, NJ: Princeton University Press.
- McCarthy, T. 2003. Calling all agents: General secretary's report to the International Necronautical Society; Transmission, death, technology. London, UK: Vargas Organization.
- McLuhan, M. 1962. The Gutenberg galaxy: The making of typographic man. Toronto, ON: University of Toronto Press.
- McLuhan, M. 1964. *Understanding media: The extensions of man.* Cambridge, MA: MIT Press.
- Meyrowitz, J. 1985. No sense of place: The impact of electronic media on social behavior. New York, NY: Oxford University Press.
- Moravec, H. 1988. *Mind children: The future of robot and human intelligence*. Cambridge, MA: Harvard University Press.
- Ong, W. 1982. Orality and literacy: The technologizing of the word. New York, NY: Routledge.
- Pariser, E. 2011. The filter bubble: What the Internet is hiding from you. New York, NY: Penguin Press.
- Peters, J. D. 1999. Speaking into the air: A history of the idea of communication. Chicago, IL: University of Chicago Press.
- Poster, M. 1995. The second media age. Cambridge, MA: Polity Press. Robertson, C. 2010. The passport in America: The history of a document. New York, NY: Oxford University Press.
- Rotman, B. 2008. Becoming beside ourselves: The alphabet, ghosts, and distributed human being. Durham, NC: Duke University Press.
- Sconce, J. 2000. Haunted media: Electronic presence from telegraphy to television. Durham, NC: Duke University Press.
- Smith, Z. 2010. Generation why? The New York Review of Books, November 25. http://www.nybooks.com/articles/archives/2010/nov/ 25/generation-why/?page=1 (accessed November 5, 2010).
- Sterne, J. 2003. *The audible past: Cultural origins of sound reproduction*. Durham, NC: Duke University Press.
- Stiegler, B. 1998. Technics and time, 1: The fault of Epimetheus. Trans.
 R. Beardsworth and G. Collins. Stanford, CA: Stanford University
 Press
- Stone, A. R. 1991. Will the real body please stand up? Boundary stories about virtual cultures. In *Cyberspace: First steps*, ed. Michael Benedikt, 81–118. Cambridge, MA: MIT Press.
- Thacker, E. 2004. *Biomedia*. Minneapolis: University of Minnesota
- Vanish. 2010. Vanish: Enhancing the privacy of the web with self-destructing data. Vanish: Self-destructing digital data. http://vanish.cs.washington.edu/ (accessed November 4, 2010).
- Walters, C. 2009. Facebook's new terms of service: "We can do anything we want with your content. Forever." *Consumerist*, February 15. http://consumerist.com/2009/02/facebooks-new-terms-of-service-we-can-do-anything-we-want-with-your-content-forever.html (accessed November 4, 2010).
- Web 2.0 Suicide Machine. 2010. Web 2.0 Suicide Machine: Meet your real neighbours again! Sign out forever! Web 2.0 Suicide Machine. http://suicidemachine.org (accessed November 4, 2010).
- Weber, S. 1996. Mass mediauras: Form, technics, media. Stanford, CA: Stanford University Press.
- Wortham, J. 2010. As Facebook users die, ghosts reach out. *New York Times*, July 17. http://www.nytimes.com/2010/07/18/technology/18death.html (accessed November 4, 2010).
- Yan, S. 2010. How to disappear from Facebook and Twitter. *Time*, January 19. http://www.time.com/time/business/article/0,8599,1954 631,00.html (accessed November 4, 2010).