The Information Society, 29: 152–163, 2013
Published with license by Taylor & Francis
ISSN: 0197-2243 print / 1087-6537 online
DOI: 10.1080/01972243.2013.777300

Routledge
Taylor & Francis Group

Beyond the Grave: Facebook as a Site for the Expansion of Death and Mourning

Jed R. Brubaker, Gillian R. Hayes, and Paul Dourish

Department of Informatics, School of Information and Computer Sciences, University of California, Irvine, California, USA

Online identities survive the deaths of those they represent, leaving friends and families to struggle with the appropriate ways to incorporate these identities into the practices of grief and mourning, raising important questions. How are practices of online memorialization connected to conventional rituals of grief and mourning? What is the role of online digital identity postmortem? How do trajectories of death and dying incorporate both online and offline concerns? Based on our qualitative study of death and mourning online, we identify the way that social networking sites enable expansion—temporally, spatially, and socially—of public mourning. Rather than looking at online practices as disruptions of traditional practices of grief and memorialization, we examine them as new sites in which public mourning takes place.

Keywords death, dying, bereavement, social network sites, Facebook

In the few short years since its launch, Facebook has permeated the daily lives of its users. More than just a space where one can craft an online profile or connect with other users, Facebook is a space where one can share the details of one's life, from the mundane ("Joe is enjoying his morning coffee") to the monumental ("Joe is engaged"). As Facebook has become further integrated into both the everyday and major events of our lives, and its user base has become both larger and more diverse, practices surrounding death have likewise begun to emerge.

© Jed R. Brubaker, Gillian R. Hayes, and Paul Dourish

We are grateful to all of those who participated in this study. We are also grateful to Margarita Rayzberg, Lynn Dombrowski, Ellie Harmon, and Sen Hirano, who provided feedback during the writing of this piece. This work was supported in part by the National Science Foundation under EAGER number 1042678.

Address correspondence to Jed R. Brubaker, Department of Informatics, Donald Bren Hall 5042, Donald Bren School of Information and Computer Sciences, University of California, Irvine, Irvine, CA 92697-3440, USA. Web: http://www.jedbrubaker.com; E-mail: jed.brubaker@uci.edu

While existing work has documented how bereaved users reappropriate social network sites (SNSs) to memorialize the dead postmortem (e.g., Brubaker and Hayes 2011; Carroll and Landry 2010; DeGroot 2008), in this article we adopt a perimortem perspective and turn our attention to the experiences of users during the time surrounding death. Specifically, we consider the ways in which Facebook is associated with an *expansion* of death-related experiences—temporally, spatially, and socially. Facebook creates a new setting for death and grieving—one that is broadly public with an ongoing integration into daily life. Critically, this is not simply about death, but about the trajectories of social engagement *around* death—in preparation, at the moment of passing, in the discovery of the death of a friend, and in the ongoing memorialization and grieving.

In this article, we present findings from interviews conducted during an ongoing study of death in the context of SNSs. Based on an analysis of qualitative data from interviews with sixteen Facebook users, we highlight the role of Facebook in learning about the death of a friend, providing a mediated space for grieving and remembrance, and participating in an expanding set of death- and grief-related practices.

This article is structured as follows: We first provide background from the field of death and dying. We then review related literature focused on online systems and death—including collaborative systems, cybermemorials, and SNSs. We then describe our methods and results of this study. We close with a discussion of the relationship between SNS activities and the evolving ecology of death-related practices in which Facebook is situated.

RELATED WORK

The American Way of Death

Cultural beliefs are deeply embedded within human experiences of grief and practices around death. Kastenbaum

and Aisenberg (1972), for example, envision each society's approach to death as a "death system," a "sociophysical network by which we mediate and express our relationship to mortality" (310). Participants in this work, although from diverse backgrounds, experienced death in predominantly American contexts, leading us to focus on literature in a Western context.

Walter (1994; 1996) outlined a framework that includes three types of death—*traditional*, *modern,* and *postmodern*—that highlight the various intersections of individuals, institutions, and norms that surround and compose our experience of death. According to Walter, the death that was once experienced in public within a community but with little forewarning (traditional) is later confined to the private spaces of the home and the hospital (modern). But where the modern experience is one in which private and public lives exist in relative isolation, postmodernism "conflates the public and the private: the private feelings of the dying and bereaved become the concern" (Walter 1994, 41) and are expressed publicly as an expression of individualism. In the postmodern ideal, then, the bereaved are left to ask questions of how best to meet the wishes of the deceased (as opposed to the previous demands of the church, community, clinic, and family). Likewise, the bereaved individual's expressions of grief are privileged, with survivors constructing and expressing their own relationship to the deceased.

Walter's descriptors are not mutually exclusive. Individuals draw from each mode, often simultaneously. Indeed, this may be a source of internal and interpersonal conflict as the bereaved weigh competing cultural expectations. The design of SNSs, while creating new social spaces, still emphasizes the individual—with few exceptions, each profile and all actions on the site are attributable to a single individual.

Clinical Approaches to Grief and Bereavement

Disciplines such as psychology and social work have a particular interest in addressing the clinical needs of the bereaved and providing professionals a theoretical basis on which to treat patients. Stage theory (Kübler-Ross 1969) and continued bonds (Klass, Silverman, and Nickman 1996) provide contrasting ideas about the psychological processes surrounding death. Kübler-Ross's staged model for "grief work" is perhaps best known, and includes five stages: denial, anger, bargaining, depression, and acceptance (Kübler-Ross 1969; Kübler-Ross and Kessler 2005). Although Kübler-Ross acknowledged that her five stages are not prescriptive, this model can be seen as a loose pathway through an emotional process of coming to terms with and accepting death.

Survivors, however, may maintain prolonged attachments to the deceased (Lofland 1982; Harvey et al. 2001). In contrast with a staged approach in which the bereaved are expected to "let go" (acceptance in Kübler-Ross's model), "continuing bonds" (Klass, Silverman, and Nickman 1996) describe how individuals establish an inner representation of the deceased to maintain a link or even develop a new relationship postmortem. The nature of the bond is dynamic and ongoing, impacted by the survivor's belief system. On SNSs, we can see the influence of belief systems in the ways users incorporate ideas of the afterlife in their use of postmortem profiles and the content they contribute.

In search of a more clearly defined and operationalizable model of grief, Stroebe and Schut (1999) proposed the Dual Process Model (DPM) based on three central concepts: loss-oriented coping, restoration-oriented coping, and oscillation. DPM focuses on the balance between the need to process grief in order to prevent serious emotional problems and the need to acknowledge and maintain continuing bonds with the deceased. In effect, this oscillation allows the survivors to engage selectively with their loss, while employing restorative behavior that allows them to move past their grief.

These psychological approaches have permeated much of the discourse around death throughout Western society, particularly in America. In the findings, we return to this tension between remembrance and continued engagement in the context of the kinds of expansions Facebook facilitates.

Postmortem Identities

Following a death, both questions and assertions arise about who the deceased was in life. Wakes, candlelight vigils, and other memory-sharing practices are ways in which postmortem identities continue to be crafted and preserved. Likewise, obituaries validate and memorialize the deceased in light of current societal ideals and expectations, particularly in Western contexts (Hume 2000).

Establishing a narrative and identity for the deceased can be an important part of the grieving process (Harvey et al. 2001). Unruh (1983), for example, outlined four "identity preservation strategies" that enable survivors to maintain their attachment, including reinterpreting mundane thoughts, memories or objects; idealizing the deceased by redefining negative qualities; continuing predeath bonding activities such as annual vacations, theatre tickets, and so on; and sanctifying meaningful symbols, commonly including grave sites, but also objects or spaces (e.g., a child's bedroom or a Facebook profile) that may signify the identity of the deceased.

In some cases, multiple and conflicting narratives of the deceased exist. For example, the narrative that the mother of a gang-related murder victim constructs for her son is quite different from the narrative adopted by the police or

newscasters (Martin 2010). Because arriving at a singular identity for the deceased is not possible, survivors must negotiate the challenges presented by alternative narratives. This identity work provides "a vehicle for reconstructing, rehabilitating, and maintaining a postmortem identity in collective memory" and thus "mitigates disenfranchised grief" (Martin 2010, 37).

SNSs may amplify these challenges. Survivors from separate social spaces have traditionally developed these narratives in relative isolation, or during specified periods of time or events (Brandes 1997; 1998; Lamm 2000). SNS profiles, however, often cut across different social contexts, increasing the probability and frequency of these conflicts. SNSs prompt new questions about ownership of the identity and the technological ability to negotiate different identities for the deceased in one shared space.

Memorializing the Dead Online

In recent years, researchers have begun to engage with death as a novel site for understanding how people relate to and appropriate technology. For example, Bell (2006) details the inclusion of technologies into traditional patterns of engagement between the living and the dead, from the creation of online "shrines" to deceased friends and family, to the incorporation of digital technologies into traditional funerary practices. Other projects have engaged death as a site for technological design (e.g., Dow et al. 2005; Kaye et al. 2006; Kirk and Banks 2008; Massimi and Charise 2009; van de Hoven et al. 2008) and the emerging practices and challenges surrounding the inheritance of technological objects (Massimi and Baecker 2010; Odom et al. 2010).

Although Facebook is a relatively new technological system and practices around death are still emerging, using the Internet to memorialize the dead has a long history. "Cybermemorials" (also called Web memorials) and "virtual cemeteries" have received attention in the literature on death and dying, with Roberts and Vidal (2000) noting four large memorial sites as early as 1996. Roberts (2004) subsequently detailed the features of these sites, including both static content (profiles that resemble an obituary) and dynamic content ("guestbooks" that allow visitors to add content to the site). In a related content analysis of cybermemorial posts, Roberts and Schall (2005) found that those who knew the deceased while he or she was alive most commonly left posts addressed to the dead, while posts left by strangers more commonly addressed the memorial's author.

The explosion of SNSs has afforded new means by which to grieve and memorialize the dead from within technological systems that are becoming part of most Americans' everyday experiences. Postmortem SNS profiles are techno-spiritual spaces in which the identities of the deceased are inter-subjectively produced by the contributions of SNS friends (Brubaker and Vertesi 2010).

In a previous study, we performed a mixed-methods analysis of more than 200,000 comments posted to MySpace profiles of users who had been deceased for at least three years (Brubaker and Hayes 2011). We found that while MySpace profiles do constitute a kind of public grieving space, commenters rarely speak to each other and almost always address the deceased user as the primary audience. In addition to confirming Roberts's findings on cybermemorials, we found evidence that individuals consider the MySpace profile as symbolically belonging to the dead. These previous results also demonstrate three commenting practices that endure across multiple years following the death of the profile owner: sharing memories of the deceased, posting updates from the lives of the survivors, and maintaining connections through comments that include the deceased in the ongoing lives of the living.

To date, qualitative research addressing perimortem experiences on SNSs remains limited. Odom et al. (2010) enumerate a number of challenges that communication systems can present when they do not have the capacity to track and adapt to changing social circumstances such as death. Our approach, though, is somewhat different; rather than considering SNSs as disruptive to perimortem experience, we look at them as a site where the collective experience of death and dying is enacted, albeit a site that is still in flux. In this work, we focus on the ways in which SNS users experience profiles of the dead in the context of existing SNS use, their interpretation and participation in postmortem SNS behavior, and the extent to which SNSs influence experiences of death both online and off.

METHODS AND ANALYSIS

We conducted interviews in 2010 with 16 individuals (ages 24–57 years, 9 women) who reported experiences related to death on social networking sites. Participants were recruited via our personal networks and snowball sampling, and resided throughout the United States at the time of their interviews, including northern and southern California, Illinois, Utah, Virginia, Washington, and Washington, DC. Three participants were from Canada, Japan, and India, but the stories shared reflected an American perspective.

Interviews were open-ended, allowing participants to guide the discussion to those topics that most interested them but with a general focus on feelings about and approaches to death, experiences with social media and other communication technologies, and interactions and experiences with death on Facebook in particular. Prompts, when used, were designed to evoke stories and experiences from the participants. For example, participants

were asked about their first encounter with death online, scenarios in which these encounters occur, and about the role dead profiles play in their use of social media. Participants also reflected on their preferences for handling their own accounts postmortem. In terms of technologies, discussions were predominantly focused on Facebook, but participants also talked about a variety of other SNSs and communication technologies (e.g., e-mail, instant messenger, etc.). All participants described encounters with at least one dead individual on Facebook, with most commenting on their experiences with two or three.

Interviews lasted between 1 and 2 hours, and were conducted in person ($n = 8$), via video chat (with screen sharing functionality; $n = 4$), or over the phone ($n = 4$). Participants interviewed in-person used a laptop with screen-recording software when and how they deemed appropriate, such as to share the profile of a deceased person with the interviewer. Likewise, screen sharing was used during video chat interviews, and relevant on-screen interactions were recorded. Regardless of interview mode, participants shared related artifacts, including e-mails, obituaries, news articles, public Facebook groups, and blogs.

We conducted inductive analysis of the interviews and related data (Corbin and Strauss 2008), initially performing a thematic analysis of interview data (Braun and Clarke 2006), identifying emergent labels and grouping them into themes such as "sharing memories." In each pass, researchers analyzed the same data through an evolving and synthesizing lens. A shared perspective emerged as we engaged in discussions about the data and held an iterative "conversation" between the data, previous findings, and related literature. We then produced a set of memos that pinpointed demonstrative examples and detailed these themes. Using these memos, we conducted a series of discussions to evaluate our themes, resulting in further clarification and higher order categories such as "unexpected encounters." These themes were then used to code the data deductively.

FINDINGS

Analysis of our qualitative data revealed three interrelated themes, each of which is connected to the central idea of information technology and SNSs as an expanding platform for publicly enacting death and grief. In this section, we first discuss the ways participants make sense of their own and others' behavior in relation to the deceased. Second, we examine unexpected encounters with death and the deceased, including news of a death, public expressions of grief, and representations of the dead. Third, we outline participants' views regarding the symbolic ownership and management of postmortem profiles.

Speaking of, to, and About the Dead

In our previous work, we found a strong pattern of messages posted on the deceased's MySpace profile being directed towards the deceased, rarely to other survivors—effectively speaking to the dead (Brubaker and Hayes 2011). Participants, like Kevin,[1] shared experiences and profiles that confirm this pattern on Facebook: "I just remember a lot of people saying 'I'll miss you forever. I can't believe you're gone' . . . like speaking to somebody versus about somebody." This form of "public private speech" is a genre of SNS communication in general, but in the case of postmortem profiles constitutes a form of public grief rarely available otherwise. Given the public nature of these messages and the inability of the dead to respond on Facebook, in this section we report on the various ways in which interview participants described interpreting these profiles and messages.

When discussing postmortem Wall posts, many participants used familiar funerary and death related similes—particularly with graveyards and tombstones—to describe their experiences and concerns:

> [T]here was part of me that thought it was a little odd, but I thought no different than putting flowers on a grave. They now have a place that they can write her, or write things about her or post pictures, and that's kind of what they're doing. (Debbie)

Participants varied in how they evaluated this behavior and users' motivations. This range is particularly visible in the differing perspectives of two participants: a husband and wife who were each interviewed separately. Catherine characterized postmortem Wall posts as inauthentic requests for attention:

> To be honest, I just don't think death on Facebook is ever appropriate . . . I feel like all that's doing is attention calling . . . maybe you want to share that you are in pain and in grief, but you probably just want people to know that you knew somebody who died and it makes you sad . . . there's a reason people put that crap on their Facebook profile, and I don't think it's for the benefit of the dead person.

In contrast, her husband Kevin speculated that users post messages because they continue to see the profile as symbolically belonging to the deceased:

> It probably just seemed natural to them—that you would post on there and say things to him even though he couldn't get it, because on some level its still his account and his things, so you're still going to him. So it's even more specific than like a letter, 'cuz where's a letter gonna go to? It'll just go to the house and like his parents will read it maybe. But at the same point, this is his account. So I feel like on some level it's going right towards him.

How participants viewed Facebook in other contexts played a central role in their responses to the use of

Facebook to memorialize the dead. For example, when Anna described the death of a college friend several months earlier, she was uncertain about the appropriateness of memorials on Facebook. While she believes that funerals should be a celebration of the deceased's life, she views Facebook as too casual of a medium for these celebrations:

> I guess in some ways somebody could argue that, hey, Facebook is a big party so doesn't that mean that we're doing exactly what you said . . . [but] it seems like a cheap way of—a cheap way of celebrating someone's life. (Anna)

In contrast, Nina described feeling comforted by the messages surrounding the funeral of her cousin, especially by those that were the most casual and "uplifting":

> He basically said, "Hey, we basically tailgated {laughs} at your funeral. Ha, ha, ha" . . . So there was a sort of cute picture of the car and a bottle of champagne or wine and a glass or something . . . It was all these funny things; funny little things that. . . made readers feel a little at ease about the death.

These contrasting perspectives highlight the divergent ways in which social media has come to be interpreted and integrated into daily life. While, on the one hand, Facebook is seen as too casual a medium for a weighty topic such as grief and grieving, it simultaneously provides people with ways to engage with the dead and fellow mourners in ways unlikely in conventional grief practices. Rather than contained to a funeral, memorial ceremony, or life celebration, Facebook's very "everydayness" enables an expansion of grief into other aspects of life. Such tensions and discomforts over new media are scarcely new. Users of Internet technologies have struggled to find a balance between expanded access to content and the appropriateness of engaging with that content in a particular context. This issue is compounded given that individuals are inevitably connected to users with a wide range of ideologies for Facebook use (Gershon 2010). Still, looking at Facebook through the lens of death dramatically highlights these tensions and offers designers new challenges in the consideration of SNSs and the applications built on them.

Beyond the tensions inherent to SNSs, postmortem SNS profiles add an additional challenge to users attempting to interpret them and integrate them into their experiences, as it is unclear with whom one is communicating via public posts. Participants spoke of their desire to use the profile as a public space to communicate with other grievers, but were uncertain in light of the predominance of messages addressing the deceased:

> I don't really have anything to say to Mike, Mike's dead, but I kind of want to be like "Mike, I hope your family is doing okay." (Kevin)

Interviewees reported numerous strategies for handling the confusion and discomfort present when the profiles of the deceased continue to exist and are used for communication, grieving, and support. One common approach included the creation of a Facebook Group to facilitate communication between survivors. Facebook Groups are administered by users who are still alive and can display a stated purpose, such as the "description" of a group shared by Henry: "Lets Remember the vitality and life of Sarah, who touched us all. This is a place to remember her and share information."

> I personally prefer the memorial group, because then it's like a designated place for people to go and actively mourn together, I think, instead of like a thing that was his when he was alive and now is somebody else's. (Katrina)

Facebook Groups are commonly created in addition to existing profiles. Facebook Groups allow users to make content public, as opposed to profiles that might be restricted due to privacy settings. At the same time, the nature of these groups allows those who are uncomfortable with mourning and memorializing on Facebook to control their exposure by managing their connection with a group rather than the deceased's profile.

Users have yet to establish norms around death on Facebook, but some trends are emerging. Facebook has its own language and vernacular, but when it comes to death, participants rely on familiar death-related terms (e.g., tombstones, graveyards) in conjunction with their understanding of Facebook norms to explain the profiles and behaviors observed. The ambiguity users feel when engaging the topic of death on Facebook is evidenced in the various attitudes and practices reported. In the next section, we specifically engage several of the ways in which participants unexpectedly encountered death-related content, and how they attempt to mitigate those experiences.

Unexpected Encounters

Facebook expands the ways in which one might happen upon information about the deceased. Our analysis highlights three ways in which participants encountered content unexpectedly: learning of the death of a friend during normal Facebook use; exposure to the publicly displayed grief of others; and incidences in which automated parts of the Facebook system presented users with content regarding their dead friends.

Facebook is well known for connecting even the most casual of friends (Brown 2008) and those with whom users might have otherwise lost touch, increasing the frequency with which in which one will encounter death. Many interviewees reported unexpectedly learning of a friend's death during regular Facebook use. For example, Henry

described learning about the death of a friend as a result of another friend's status update:

> Two Christmases ago, I went on Facebook and found out that a guy that I knew when I worked at a summer camp as a teenager had died, . . . I saw the posting on a friend's Wall and it was a friend who I would never have associated with this person. They were from two different sides of the world and—but somehow they knew each other. And so, I immediately wrote to that friend and was like, "What's going . . . "—"You know this guy? How do you know this person? Wait. And I didn't know that this person died."

Likewise, Laura described learning about the death of a high school friend when acting on a Facebook birthday notification:

> Maybe about a year and a half ago, he contacted me on Facebook and he wanted to know what I was up to. And we had a long conversation on instant messenger . . . that's the last time I was in contact with him. . . . I went on his Facebook to wish him a happy birthday and saw that he had died. . . . It had been nine months or so ago he was in a car accident.

These accounts illustrate how the connections with casual acquaintances or friends on Facebook enable users to participate in death and other major life events even at a distance, though sometimes an unsettling amount of time later.

In addition to the shock of discovering the death of a friend, participants described their discomfort in seeing the grief of others. Individuals grieve in different ways and at different times; however, the public nature of the profile Wall can be seen as intrusive for those who prefer more private forms of mourning.

> I think it's more that things made me a little uncomfortable . . . the idea that I'm seeing their personal grief. There were very personal communications from her to her sister and I felt just like I shouldn't be privy to those. (Katrina)

The desire to grieve privately also raises issues when discussing the death of a loved one on a platform designed to broadcast the thoughts and feelings of its users. Following the death of his father, Henry described having to closely moderate his own Wall for sympathetic comments:

> When my father passed away, I didn't want people to know . . . I had just moved to a new city and I was already having a tough time with other things in life and I just didn't . . . I wanted my loved ones and really close friends to know that this had happened, but I didn't feel like I needed to write an email or post it on Facebook . . . especially on Facebook, . . . if somebody had made a comment about it, if somebody had found out like a relative and posted something on [my] Wall, [I] quickly deleted it . . . I don't want somebody asking me about if I miss my dad on Facebook . . . I use it as a very casual tool; it's not personal.

Further complicating the situation, many SNS behaviors are interrelated with automated Facebook features, resulting in novel ways to discover the death of a friend. By far the most common channel in our data was the Facebook Newsfeed, through which participants would find notifications about posts to the deceased's Wall or grief-related status updates posted by their friends. Participants described the jarring experience of finding death-related notifications amid more casual content in the Newsfeed, using terms such as "weird," "odd," and "gross." Henry described these automated notifications as impersonal:

> The only thing that existed was this kind of notification via the Internet, which I think is—it becomes very cold and it, perhaps, makes some people . . . {long pause}. . . and when it happened to me, it made me deal with the death differently than I would have if it was something firsthand.

Even after the initial discovery, features like the Newsfeed often continue to inject death into otherwise typical Facebook use. Catherine explained repeatedly seeing status updates from one of her business contacts:

> She was going through this [grieving process] and I understand why she wanted to share on Facebook and . . . I don't think she was harping on it to get attention. . . .. I'm sure this was a horrible time for her.

Given the nature of their relationship, Catherine felt that it was inappropriate to address the issue directly, but eventually removed this "friend" to stop the notifications. "I felt like they were confrontational," she explained.

Unexpected encounters occur as a result of various SNS channels ranging from comments in Newsfeeds, to birthday reminders, to more explicit communication attempts. Molly described encounters resulting from a Facebook Group for a foundation created by the parents of one of her high school classmates following his death from cancer. She is not friends with the deceased and is not part of the Facebook Group; however, she is friends with other classmates who are connected to and support the group. Through these connections, Molly often receives invitations to the group's activities:

> They'll blast stuff out about the foundation and that is the only contact I will have with these people. Like you know, some of these people that I would never have talked to after high school, ever, barely talked to in high school . . . I will get like please participate in this, please come to this fundraiser, please do this, please do that . . . And I've even forgotten at this point what kind of cancer he had. 'Cause I'm a terrible person . . .

It is not surprising that users' social networks share unwanted information, but interviewees described these intrusions differently than the average post from a political group or individual with whom they disagree. Rather than the contempt or derision one might normally express over objectionable content, interviews participants

apologized repeatedly for negative comments and expressed concern that we or others might think less of them for their discomfort.

The underlying technology of Facebook also expands perimortem interactions beyond traditional temporal and social boundaries. For example, Facebook's "Reconnect" feature sends messages to users encouraging them to contact other users who have not logged in recently or with whom no interaction has recently occurred. When Facebook launched Reconnect in October 2009, users were alarmed at Facebook's recommendations to "share the latest news" with their dead friends. Automated systems such as Facebook's Newsfeed or Reconnect can insensitively present users with objectionable content. However, not all interviewees associated these messages solely with the inner workings of the technological system. In these cases, Facebook becomes a techno-spiritual system (Bell 2006): a means for mediating communication, even with the deceased. For example, Kevin described Reconnect messages as "communication beyond the grave":

> Obviously we understand that Facebook's just posting that up there to try and drive traffic and get people to be active on their boards . . . If like he had gone on vacation for two years and wasn't around computers it wouldn't be that weird . . . But the fact that he's dead makes it a little bit more interesting I guess . . . there's things that this person put in motion while they were alive that are still happening . . . on some level it's still like that person's taking an action.

Although most interviewees did not act on these requests, data collected during this study indicates that some users do. For example, one woman wrote on the Wall of a profile: "Facebook tells me that I need to reconnect with you. I wish it was as easy as picking up a phone or typing these few words. I do miss you and think about you often!"

For those looking to avoid these unexpected encounters, explicit action must be taken. Katrina, for example, eventually removed her deceased classmate from her list of friends in order to avoid the ongoing notifications about grievers posting on the deceased's Wall. These decisions are far from cut-and-dried. Sean described his struggle with the intentionality he associated with the action of removing his deceased mother from his instant messenger account, explaining that it "just felt sort of vicious." He contrasted this with implicitly removing her from his phone's address book by not copying her number over when he changed phones. As with IM (instant messaging) and other Internet communication technology, Facebook users must actively choose to remove the dead from their lists of friends. Although most struggled with this issue, not all interviewees were equally concerned. As Catherine bluntly noted, "You know, when my friends die online, I delete them."

Grief and mourning periods often do not reach a distinct ending point (Klass, Silverman, and Nickman 1996). Traditional, nondigital artifacts, however, may decay over time, such as pages of photographs and diaries yellowing and fading away. Digital content can continue to persist without such decay, thereby expanding the reach of mourning and memorializing. Facebook automatically extends the experiences around death into additional everyday activities over extended periods of time within large social networks.

Postmortem Identities

SNS users craft profiles to represent their identities while they are alive, yet these digital identities continue to persist after death. Moreover, these identities grow as friends add content to the deceased's profile and weave them into their social networks with images, tags, and evidence of SNS activities. The dynamic nature of the profiles results in what one participant described as "interactive digital tombstones." The deceased's inability to moderate content presents a number of issues around representation. In this section, we demonstrate how the memories shared by survivors expand the overall identity content, the friction users experience as they encounter alternative narratives of the deceased, and consider issues surrounding the symbolic ownership and management of profiles postmortem.

Both in the physical world and online, sharing of memories about the deceased is common. Participants described using Facebook to learn more about the deceased through the memories shared by others, often at a far distance both geographically and in time:

> It would help us each know the Mike that the other one knew. Like I know the high school Mike. I would love to know what the college Mike was like and the after college Mike was like. (Laura)

> I actually got to know her diving friends . . . Those are people that I never had a chance to meet . . . But this one person wrote a really beautiful obituary . . . And it was really, really beautifully written; sincerely. And it also sort of made me understand sort of how important diving was to my cousin. And then what a great circle of friends she had through diving. (Nina)

Likewise, participants reported appreciating pictures of the deceased and the associated comments left by others. For example, photos played an important role in Henry's descriptions of his friend Finn. In one picture where Finn is exposing his buttocks, Henry explained:

> Well, to know Finn, that seems like the perfect picture to put on up here and he would have loved that . . . And he was a really fun guy. Perpetual camp counselor, right?

Confirming Henry's assessment, one of the photo comments read "Classic Finn."

The content of the deceased's profile, as well as the content added by the network, can also be a source of

tension for survivors. Several participants shared concerns over content they deemed "inappropriate" postmortem. In these cases, the role of the profile shifts from active space to archive, as do the values with which individuals evaluate the space. Content added postmortem presents additional problems given the diversity of social groups that interact with the deceased's profile. Cassie, an atheist, described her unease with some of the religiously themed messages left online surrounding her sister's death:

> Let's see . . . there's this: {reading} "You are an angel. I believe in heaven. I know that's where you are" . . . Um, you know, it's again, it's not like really offensive, it's just more like a little bit awkward.

Comments like these are incongruous with her own bereavement narrative—one in which she focuses on her sister's life and not her continued existence. In a similar vein, Catherine spoke about her desire to control the content on her husband's profile:

> If Kevin was to die, like I said, I would probably go down after a while and shut down his profile . . . but I wouldn't like change his interests that they all said things like "only my wife because she's the greatest person ever and I love her" . . . But I think that after I let time go by, I would shut down the Wall, even if people were irritated by it . . . it's just like after a certain point like death isn't public property anymore. You have to let it just [be] with the family.

The addition of content highlights the question about how best to manage these identities. Interview responses to the question of who owns the account postmortem varied from "family members" (Katrina) to "A deceased woman" (Debbie). Echoing Catherine's concerns, Sean explained that "no one should own the account anymore":

> It should just go into limbo and exist on its own . . . I sort of feel like they had it the way they wanted to, and for someone else to go on there and manage it or doing some other things would sort of violate how they wanted to keep their identity.

Although participants stressed the importance of respecting the deceased's wishes, when we asked what they would like to happen with their own accounts postmortem, they often deferred to the wishes of survivors:

> I guess my husband or my sister [would take over my account], someone from my family. (Katrina)

> I'm sort of indifferent. I guess that would be fine [to keep the account active], I mean, sort of like whatever would be best for my family because, you know, I'm not going to be around. (Cassie)

Most participants identified family members who they expected would inherit their Facebook accounts, while others, like Molly, seemed unconcerned: "Whoever wants it, I guess."

There are no clear and easy solutions for the management of postmortem identities. For its part, Facebook introduced a "memorialization" status for profiles in 2009 that effectively achieves what Sean, quoted earlier, describes. Memorializing a profile disables the ability to log in to the account, but preserves most features, including the Wall, allowing current friends to share memories but preventing new friends from being added to the deceased's account. Despite the availability of this option, none of the participants in our study reported using a memorialized profile, and indeed, many of them were unaware of Facebook's policies regarding the deceased. Memorializing profiles does address one substantial form of misrepresentation: Facebook can prevent memorialized profiles from appearing in systems like Reconnect. However, use of this status does not address one common concern: Facebook "friends" posting "inauthentic" content. In the absence of the profile's owner, the experiences and opinions shared on the deceased's Wall equate to speaking for the dead.

DISCUSSION

The combination of a user's networked communication and Facebook's automated notifications leads to new types of encounters with death. The often asynchronous nature of Facebook can result in a kind of temporal slippage in which users might reach out to a friend casually on a birthday or in response to a prompt from the system, only to discover that the friend has been dead for weeks or even months. Likewise, death-related communication is not bound to a single space of mourning. Users express grief via status updates, Wall posts, and comments on photos, each of which has the potential to percolate through the network in different and sometimes unpredictable ways. Finally, in many cases mortal status is not identifiable by the Facebook system, resulting in startling encounters between the living and the dead, as was the case with Reconnect.

We have framed these issues in terms of a series of expansions resulting from the use of SNSs as a platform for enacting social processes around death. Temporally, we see pliability in this asynchronous medium (particularly around notification of death) and an interweaving of death into everyday SNS experiences (rather than in just funerals and memorials). At the same time, the use of online memorials leads to a spatial expansion in which physical barriers to participation are dissolved. Finally, social expansion results from the broad dissemination of information and grief practices throughout these SNSs and the resulting forms of context collapse in online self-presentation (boyd 2002; Marwick and boyd 2011). Through all of these, though, SNSs are not necessarily problematic disruptions of social practice, but rather sites of social and

cultural production—in this case, the production of public grief. In this section, we further elaborate these three expansions as they pertain to the role of death in SNSs to elucidate their relationship both to the experience of death on SNSs, and to SNS activity more broadly.

Temporal Expansion

Temporal expansion can be understood as an increase in both breadth and immediacy. This expansion is enabled by the asynchronous nature of SNSs as communication mediums, the frequency with which they are used, and the role of profiles as ad hoc archives. Temporal expansion results in both the immediacy of information enabled by daily use of SNSs, and breadth of information available as individuals add content from the past and present and about the future. Users discover the death of friends and may contribute postmortem comments, often within hours of an individual's passing. Some users, moreover, continue to engage with postmortem profiles, sharing memories, updates, and speaking to the dead. As a result, we see the interweaving of death and grieving into the everyday, rather than in the temporally bound settings of traditional funerals and memorials.

Our findings also illustrate how the "late" discovery of a friend's death can be particularly upsetting. The discovery of a friend's death is shocking in any medium, but the asynchronous nature of SNSs may exacerbate this experience (Carroll and Landry 2010; DeGroot 2008). It is important to note, however, that the kinds of temporal slippages participants reported on Facebook go hand-in-hand with the expectations social media platforms have enabled. Particularly on Facebook, the constant stream of near-instant information broadcast across browsers, e-mail, text messages, and mobile applications (to name a few) has enabled the incorporation of SNS use into everyday life. Indeed, half of active Facebook users log into the system daily (Facebook 2011). However, this appears in part responsible for the shock participants reported when learning of a friend's death. The exclamations of those learning about an individual's death after the fact highlight the new immediacy to which we increasingly hold social information.

These temporal expansions may have profound impacts on the bereaved. Previous research on cybermemorials has suggested that online spaces can serve as traditional physical memorials (Roberts 2004); however, the cybermemorials addressed by the existing literature are largely passive in nature—isolated websites that users can interact with when and how they choose. The ways in which SNSs are designed to promote broad social interaction may eliminate the forms of agency over when and how one grieves valued by clinical approaches to grief (Stroebe and Schut 1999). Broadly, this research indicates that as an active archive—one that both stores content from the past, and actively presents users with this past content—SNSs create an infrastructure for a new relationship with our social pasts—one in which failed romances, past embarrassments, but also deceased friends are resituated into our everyday use of SNSs.

Spatial Expansion

The removal of geographical barriers when using SNSs, enabled by communication that clusters around individual users' social networks, allows users to interact at a distance, resulting in a spatial expansion of the social processes around death and bereavement. This is true of any number of mediums; however, this research demonstrates the variety of ways in which SNSs broaden the opportunities to participate in memorializing practices from a distance.

The SNS profile, in particular, provides an ideal space dedicated to the now-deceased user in which others can participate in the shared production of grief from a multitude of locations. As spaces, postmortem profiles can proxy funerary events and allow individuals from diverse locations to memorialize the deceased. Likewise, previous research has argued that SNSs may benefit marginalized grievers (e.g., those outside the family) by providing access to a space for mourning (Carroll and Landry 2010).

This study, however, clearly demonstrates that this inclusion is accompanied by varied opinions and anxieties about how best to behave on SNSs in relationship to the experience of death. The strong opinions shared by participants were grounded in norms about appropriate behavior in funerary and memorialized spaces, as well as SNSs as a space. However, these norms (which can vary wildly on their own) produce multiple and conflicting understandings of appropriate behavior—often based on conflicting and/or layered understandings of SNSs. Users may comfortably adapt norms from funerary spaces to postmortem profiles. However, those who find public grieving behavior on SNSs inappropriate appear to handle their discomfort silently or by resorting to technological solutions that alter the nature of this space, such as unfriending the bereaved. The attitudes and behavior reported to us generally privilege individualism in a way consistent with Walter's postmodern ideal (1994; 1996), suggesting that, in the context of death and bereavement, users may feel it is inappropriate to request that others change their behavior.

Two SNS-specific spaces are particularly worth noting in terms of spatial expansion: the user profile and the Newsfeed. The configuration of these two spaces on Facebook results in a broadening of the space in which content may be displayed. Thus, the individual who authors a semiprivate message in the context of an individual's Wall may find other users responding after seeing this

message in various newsfeeds. While highly interrelated with social expansion, spatial expansion suggests that even as SNSs continue to provide novel spaces of interaction that remove geographical barriers, this very lack of barriers present challenges to users who are unable to know reliably the context in which their content will be received. Open questions remain about the ways in which intimate, sensitive, and geographically specific content is expressed on SNSs, and the potential impact when it is.

Social Expansion

Social expansion refers to the dissemination of information across previously separate social groups unified by SNSs. This expansion is enabled by the large number of friends with whom users maintain connections and the limited ways provided by sites like Facebook to separate various facets of a user's life. Thus, this social expansion also serves as a functional collapse of distinctions between social groups and contexts. While SNSs might have originally been conceptualized as spaces allowing users with shared interests or activities to interact, the growing ubiquity of Facebook demonstrates an alternative design—one in which each user is the center of his or her own collaboratively articulated network of digital peers. Through this study of death, we see three notable effects resulting from this social expansion that are demonstrative of social expansion more broadly: the inclusion of casual social relationships, individuals from distinct contexts, and an expansion that now includes the deceased.

Given that SNS users are often friends with individuals with whom they may only have casual relationships, or with friends from the past, social expansion has resulted in ambiguous relationships with the deceased. Individuals who might have otherwise been unaware of an individual's death without the aid of SNSs must make decisions about how to participate (or not) within a broadly public setting. Unambiguous connections to former friends can demand uncomfortable consideration of the importance of the deceased in their life, and thus the appropriate way to respond.

Second, friends from multiple social contexts—work, home, past, and present—are collapsed together in the context of a SNS profile. We saw concerns about how to be respectful to those who are particularly grief-stricken. Although users may want to respect the wishes of parents and family postmortem, it is not hard to imagine that some parents may be using an SNS for the first time and only as a result of the death of their child. In a related vein, some content left by parents clearly marked them as outsiders—guests, uncertain how to behave (Brubaker and Hayes 2011). This uncertainty directly contradicts many of the expectations interviewees had about the role of parents and family members as potential inheritors of a SNS account.

Finally, the social space of SNSs has expanded to include the deceased. At a basic level, both SNSs and their users make normative assumptions about the mortal status of friends. Unless explicitly memorialized, postmortem profiles are treated as belonging to the living. Perhaps even more telling, if memorialized, Facebook profiles—and the users they represent—are partially frozen, unable to be updated with personal information or the addition of friends. This model prioritizes the needs of a now-dead individual over the grieving community that remains. Like Facebook's take on "friendship," this approach represents a workable but oversimplified view of the issues surrounding death, including planning for and discovery of death, as well as managing the short- and long-term ramifications of an individual's passing. Over time, SNSs and other technological systems should evolve to understand and handle death in a more nuanced way. If they do not, however, our findings indicate that users will continue to engage system features creatively and establish ways in which to connect with or ignore the deceased online.

Open questions have emerged as a result of this social expansion surrounding both the space and the identity of the deceased. Friends often elaborate postmortem identities by sharing memories and content, raising questions about how best to negotiate differences between the narratives of the bereaved from various parts of the deceased's life. In the absence of profile owners to choose what aspects of their lives they want shared, commenters can share stories of which other survivors or even the deceased themselves might not have approved. Unlike obituaries, cybermemorials, or Facebook Groups, postmortem profiles are not created by a loved one to honor the dead. They were created by the dead and are appropriated by diverse survivors with disparate needs. In their discussion of the moral endurance of archives, Odom et al. (2010) stress that technological approaches to bereavement require more than the persistence of the contents of, in this case, a profile. They require attention to the "delicate social arrangements" surrounding nuanced practices of owning, storing, and managing the digital representations of the deceased. In light of the social expansion of SNSs, the role of social arrangements is profound for the living as well.

CONCLUSIONS

As SNSs increasingly play an important role in the social lives of their users, they are finding a growing place inside a broader ecology of practices surrounding death. SNSs provide a new space for the bereaved to engage grief that is socially situated in the daily lives of users. While online grieving might be beneficial for some, the unmarked way

in which it is handled by the system presents challenges to others who are not grieving or who are grieving differently. Some find comfort, while others express distress at seeing what they consider private expressions of grief and may even question the authenticity of users' messages, given the medium by which they are expressed. One contribution of this work lies in a deeper understanding of the use of SNSs in the production of public grief, including the ways in which people negotiate ownership, symbolic and otherwise, of online spaces.

Studying death through the lens of temporal, spatial, and social expansions enabled by SNSs allows us to see this medium's distinctiveness as both an ad hoc archive and an asynchronous communication medium. These expansions demonstrate how the SNS platform enables new types of relationships with both people and content across time, geographical spaces, and social contexts. In doing so, they also highlight the social nature of death. Even as SNS profiles reflect the individualism of Walter's postmodern death (1994; 1996), death and bereavement still remain a social experience negotiated by family, loved ones, and now a large, technologically maintained network of digital peers.

As a result of these expansions, SNSs have emerged as new social spaces dedicated to an individual even after they have died. Through the temporal persistence that SNS profiles enjoy, they have become unanticipated memorial spaces that can serve as archives of the lives of the deceased and social space for the bereaved. As Grider (2007) wrote, the Internet may be radically redefining memorials toward "an ongoing process," one "that depends less on the implied eternity of a built physical environment than on the entirely different eternity of circulating information." As a result of SNS infrastructure, the expansions argued for here directly impact the circulation of this information by bringing death into the everyday.

NOTE

1. All names are pseudonyms.

REFERENCES

Bell, G. 2006. No more SMS from Jesus: Ubicomp, religion and techno-spiritual practices. In *Proceedings of Ubicomp 2006*, ed. P. Dourish and A. Friday, 141–158. Berlin, Germany: Springer-Verlag.

boyd, d. 2002. Faceted id/entity: Managing representation in a digital world. MS thesis, Massachusetts Institute of Technology, Cambridge, MA.

Brandes, S. 1998. Iconography in Mexico's Day of the Dead: Origins and meaning. *Ethnohistory* 45(2): 181–218.

Brandes, S. 1997. Sugar, Colonialism, and Death: On the Origins of Mexico's Day of the Dead. *Comparative Studies in Society and History* 39(2): 270–99.

Braun, V., and V. Clarke. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3(2): 77–101.

Brown, S. 2008. Scott Brown on Facebook friendonomics. *Wired Magazine*, October 20. http://www.wired.com/techbiz/people/magazine/16-11/pl_brown (accessed February 9, 2012).

Brubaker, J. R., and G. R. Hayes. 2011. "We will never forget you [online]": An empirical investigation of post-mortem MySpace comments. In *Proceedings of the ACM 2011 conference on Computer supported cooperative work* (CSCW '11), 123–32. New York, NY: ACM

Brubaker, J. R., and J. Vertesi. 2010. Death and the social network. Paper presented at the workshop on HCI at the End of Life, ACM Conference on Human Factors in Computing Systems (CHI 2010), Atlanta, GA, April.

Carroll, B., and K. Landry. 2010. Logging on and letting out: Using online social networks to grieve and to mourn. *Bulletin of Science, Technology & Society* 30(5): 341–349.

Corbin, J., and A. L. Strauss. 2008. *Basics of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.

DeGroot, J. M. 2008. Facebook memorial walls and CMC's effect on the grieving process. Paper presented at the annual meeting of the National Communication Association, San Diego, CA, November.

Dow, S., J. Lee, C. Oezbek, B. Maclntyre, J. D. Bolter, and M. Gandy. 2005. Exploring spatial narratives and mixed reality experiences in Oakland Cemetery. In *Proceedings of the 2005 ACM SIGCHI International Conference on Advances in computer entertainment technology* (ACE '05), 51–60. New York, NY: ACM.

Facebook. 2011. Statistics. http://www.facebook.com/press/info.php?statistics (accessed October 23, 2011).

Gershon, I. 2010. *The breakup 2.0: Disconnecting over new media*. Ithaca, NY: Cornell University Press.

Grider, N. 2007. 'Faces of the Fallen' and the dematerialization of US war memorials. *Visual Communication* 6(3): 265–79.

Harvey, J. H., H. R. Carlson, T. M. Huff, and M. A. Green. 2001. Embracing their memory: The construction of accounts. In *Meaning reconstruction and the experience of loss*, ed. R. A. Neimeyer, 213–30. Washington, DC: APA Books.

Hume, J. 2000. *Obituaries in American culture*. Jackson: University Press of Mississippi.

Kastenbaum, R., and R. Aisenberg. 1972. *The psychology of death*. New York, NY: Springer.

Kaye, J., J. Vertesi, S. Avery, A. Dafoe, S. David, L. Onaga, I. Rosero, and T. Pinch. 2006. To have and to hold: exploring the personal archive. In *Proceedings of the ACM SIGCHI conference on Human Factors in computing systems* (CHI 2006), 275–284. New York, NY: ACM.

Kirk, D., and R. Banks. 2008. On the design of technology heirlooms. Paper presented at the International Workshop on Social Interaction and Mundane Technologies 2008 (SIMTech '08), Cambridge, UK, November.

Klass, D., P. R. Silverman, and S. L. Nickman. 1996. *Continuing bonds: New understandings of grief*. Philadelphia, PA: Taylor & Francis.

Kübler-Ross, E. 1969. *On death and dying*. New York, NY: Macmillan Press.

Kübler-Ross, E., and D. Kessler. 2005. *On grief and grieving: Finding the meaning of grief through the five stages of grief*. New York, NY: Simon and Schuster.

Lamm, M. 2000. *The Jewish way in death and mourning*. Middle Village, NY: Jonathan David Publishers.

Lofland, L. 1982. Relational loss and social bonds: An exploration into human connection. In *Personality, roles, and social behavior*, ed. W. Ickes and E. S. Knowles, 219–42. New York: Springer-Verlag.

Martin, D. D. 2010. Identity management of the dead: Contests in the construction of murdered children. *Symbolic Interaction* 33(1): 18–40.

Marwick, A., and d. boyd. 2011. I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media and Society* 13: 96–113.

Massimi, M., and R. M. Baecker. 2010. A death in the family: Opportunities for designing technologies for the bereaved. In *Proceedings of the ACM SIGCHI conference on Human Factors in computing systems* (CHI 2010), 1821–30. New York, NY: ACM.

Massimi, M., and A. Charise. 2009. Dying, death, and mortality: Towards thanatosensitivity in HCI. In *Proceedings of the ACM SIGCHI conference extended abstracts on Human factors in computing systems*, 2459–68. New York, NY: ACM.

Odom, W., R. Harper, A. Sellen, D. Kirk, and R. Banks. 2010. Passing on & putting to rest. In *Proceedings of the SIGCHI conference on Human Factors in computing systems* (CHI 2010), 1831–40. New York, NY: ACM.

Roberts, P. 2004. The living and the dead: Community in the virtual cemetery. *OMEGA–Journal of Death and Dying* 49(1): 57–76.

Roberts, P., and D. Schall. 2005. "Hey Dad, it's me again . . . ": Visiting in the cyberspace cemetery. Paper presented at the 7th Death, Dying and Disposal Conference, Bath, UK, September.

Roberts, P., and L. Vidal. 2000. Perpetual care in cyberspace: A portrait of Web memorials. *OMEGA–Journal of Death and Dying* 40(4): 521–45.

Stroebe, M., and H. Schut. 1999. The dual process model of coping with bereavement: Rationale and description. *Death Studies* 23(3): 197–224.

Unruh, D. R. 1983. Death and personal history: Strategies of identity preservation. *Social Problems* 30(3): 340–51.

van den Hoven, E., W. Smeenk, H. Bilsen, R. Zimmermann, S. de Waart, and K. van Turnhout. 2008. Communicating commemoration. Paper presented at the International Workshop on Social Interaction and Mundane Technologies 2008 (SIMTech '08), Cambridge, UK, November.

Walter, T. 1994. *The revival of death*. London, UK: Routledge.

Walter, T. 1996. Facing death without tradition. In *Contemporary issues in the sociology of death, dying and disposal*, ed. G. Howarth and P. C. Jupp, 193–204. New York, NY: St. Martin's Press.