

Getting Your Facebook Affairs in Order: User Expectations in Post-mortem Profile Management

KATIE Z. GACH, ATLAS Institute, University of Colorado Boulder, USA
JED R. BRUBAKER, University of Colorado Boulder, USA

Legacy Contact is a Facebook feature that allows account holders to choose someone to manage their profile after they have died. This study evaluates the Legacy Contact setup process, and asks how users form and communicate expectations about what an active post-mortem manager's responsibilities would be. We conducted 30 semi-structured interviews with adult Facebook account holders in the US who either configured their own settings or were chosen for future delegation by someone else. We found that account holders chose the Facebook Friend they felt closest to, and that selection was often reciprocated. Both account holders and legacy contacts felt confident that they had communicated (or could communicate) well about the legacy contact's responsibilities, but their expectations did not align with the actual functionality of the Legacy Contact system. We argue that the misalignment of user expectations and system functionality indicates a failed setup process. Our findings suggest that post-mortem management systems require a setup process that is fundamentally different from the quick-clickthrough standards of everyday interaction design. The ramifications of a post-mortem manager's expectations not being met during a time of grief, points to the urgent need for a setup process that prompts thoughtfulness and deliberation, and forms accurate expectations for account holders and future post-mortem managers alike.

CCS Concepts: • **Human-centered computing** → **Empirical studies in collaborative and social computing**; *Empirical studies in HCI*; User studies.

Additional Key Words and Phrases: Post-mortem profile, Facebook, Legacy Contact, digital legacy, setup process, slow HCI

ACM Reference Format:

Katie Z. Gach and Jed R. Brubaker. 2021. Getting Your Facebook Affairs in Order: User Expectations in Post-mortem Profile Management. *Proc. ACM Hum.-Comput. Interact.* 5, CSCW, Article 174 (April 2021), 29 pages. <https://doi.org/10.1145/3449248>

1 INTRODUCTION

Personal data may outlive the person it represents. While long-term data management has begun to address this peculiar circumstance, surviving loved ones are left searching for ways to shut down accounts for which they may have no information. Prominent password managers like 1Password and Lastpass allow for a surviving loved one to use a master password to get login information so they can access and shut down the deceased's online accounts. But for accounts that are an everyday part of people's social communication, a different approach is necessary: survivors must manage data along with social media profiles that often become memorials to the deceased. Social

Authors' addresses: Katie Z. Gach, ATLAS Institute, University of Colorado Boulder, Department of Information Science, ENV D 201, 1060 18th St. Boulder, CO, 80309, USA, catherine.gach@colorado.edu; Jed R. Brubaker, University of Colorado Boulder, Department of Information Science, 1045 18th St. Boulder, CO, 80309, USA, jed.brubaker@colorado.edu.

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than the author(s) must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from permissions@acm.org.

© 2021 Copyright held by the owner/author(s). Publication rights licensed to ACM.

2573-0142/2021/4-ART174 \$15.00

<https://doi.org/10.1145/3449248>

computing research is uniquely positioned to understand and inform the avenues that every data-collecting online platform may find necessary for post-mortem data management. Post-mortem profile management systems like Google's Inactive Account Manager [17] or Facebook's Legacy Contact [12] were designed based on research in which users discussed concerns like privacy and hypothetical post-mortem uses for their data. As hypotheticals are limited in their ability to surface potential difficulties, building on previous research with empirical evidence from people who set up such systems can verify how well the setup processes works to prepare the chosen person for the responsibilities they would have in the event of the account holder's death.

With a focus on Facebook's Legacy Contact setup process, the most well-known and robust post-mortem data management system to date, the interview study we present here describes how people set up a post-mortem data and profile management system, including who people choose as their legacy contacts and why. Our study design explores the setup process from two perspectives: that of the account holder (AH) and that of the person selected to manage the AH's profile post-mortem (on Facebook, the legacy contact: LC). As such, we examined what discussions people had, the expectations for what managing a post-mortem profile would entail, and how perspectives varied between AHs and LCs.

We found that AHs chose the person they are closest to, which is not necessarily their legal next-of-kin. We also found that while they did not have extensive discussions about it, both parties were strongly aligned in their expectations about what post-mortem profile management would entail. Alignment between AHs and LCs reflects and reinforces the trusting relationships between active LCs and their deceased loved ones found in [15]. However, we also found critical misalignments between what our participants expected of the system and how it would actually work. Misaligned expectations ranged from small details, like how many months to leave the profile available after the person's death, to large differences, like whether an online memorial is desired at all. We conclude with a discussion about why our participants' expectations and misalignments from the Legacy Contact setup process could be setting them up for painful social disruptions like losing a way to communicate with people the deceased AH primarily kept up with on Facebook. The painful disruptions that are possible from misaligned expectations of Legacy Contact are exemplary of the key design challenge in all post-mortem data management systems: how can a system have an effective setup process when it cannot be used until after the person who set it up can no longer be consulted? We present the challenge of divided control alongside potential solutions that may guide effective setup processes for any online platforms that wish to implement a post-mortem data management system.

2 RELATED WORK

We position this study in relationship to two challenges for death and system configuration: 1) end-of-life preparation tends to be a sensitive and avoided topic of conversation, and 2) effectively onboarding people to a new system is an ongoing challenge in HCI. Post-mortem data management features on social media face both the challenges of discussing death and pre-established expectations about how settings on these platforms work. Given these challenges, we first review common approaches to end-of-life preparation, which reveal both the resources and common perspectives Americans have when addressing death. Next, we review recent work at the intersections of HCI and death, especially social issues surrounding the perpetuity of data beyond human lifespans, to contextualize end-of-life planning within the constraints of an existing social media system. We conclude this section with typical considerations in creating setup processes, including the functions that designers currently prioritize, and what people expect when using a new online feature or system.

2.1 Benefits and Challenges in End-of-Life Preparation

Due to its ubiquity, nearly every academic discipline addresses death at some level. To frame our study of a new digital system within the existing tools and tasks that influence people during times of death, we focus on the disciplines that most commonly provide resources for people planning for the end of life or experiencing a loss: law, medicine, and mental health.

Legal scholarship and practice stress the importance of having a will to handle issues such as bequeathing property and instructions for burial [21]. However, wills are also a sufficient tool for handling other preferences and wishes that extend beyond estate law. These preferences may address complex issues that arise in blended families, exceptional wealth, or multi-national assets. Even without complex issues, most American adults agree that making end-of-life preparations is important [21]. Yet the same survey cited here also reports that about 63% of American adults do not have a will [21]. One law review article acknowledges that “the creation and execution of a will is the contemplation of the testator’s own death,” and therefore difficult [37]. Because of the emotional and thoughtful work involved in creating a will, it makes sense that there is reluctance among Americans to address and prepare for death unless their circumstances (such as age or illness) make it urgent to do so. Fortunately, many resources exist to guide and advise people in making end-of-life preparations. Common recommendations include preparing documents like wills, trusts, or advance directives, as well as informing a trusted person about those documents and where they are stored [32].

Medical research also acknowledges that conversations between loved ones about end-of-life wishes can be difficult, but emphasizes the benefits: “[Creating a living will involves] the patients having a chance to consider and have some control over their last chapter of life; the proxy decision makers being ready for their roles; and the families having a chance to talk about issues relating to end of life and to resolve personal matters” [11]. Generally, medical resources identify consideration, control, choosing a proxy, and important conversations as the most critical things to enable or communicate during advance planning. In short, advanced preparation makes the logistics—bank accounts, debts, subscriptions, and inheriting possessions—easier for grieving loved ones when someone dies because people have taken time to consider specific options and articulate specific instructions.

Alongside their particular planning resources, legal and medical entities often have conversation guides on their websites (e.g., [13]), acknowledging that social and emotional resources may be needed to have logistically important conversations. Mental health professionals, especially social workers and grief therapists, are often employed to provide sensitive support when people are actually making decisions for the end of a life. Psychology research cites multiple hypotheses about why denial or avoidance of death as a topic is prevalent in American culture. Terror management theory—the idea that human beings’ ability to know they will die one day is constantly at odds with our instinct to survive—is one of the most well-established possible explanations of why people struggle to discuss their own deaths [36]. Yet psychological or psycho-therapy resources are only presented as support options when a person is actively dying rather than for advanced planning, so the relevance to this study is minimal. Other factors that guide people’s end-of-life wishes include culture, religion, and family, from who may lead funerals or memorial services, to how bodies are prepared for final disposition. Each of these factors represents a possible professional who possesses unique understandings of what decisions may be difficult or emotional for particular individuals and families to discuss. Social media technologies have touched each of these factors, easing or adapting some death traditions [29], but also complicating the most basic ways that Americans encounter death [7]. Though the digital complexities around death are new, mental health professionals maintain that it is helpful to focus on what one may control and plan for [28].

Given that Americans are hesitant to dive into the basics of end-of-life planning, it is not surprising that it remains uncommon for people to consider everyday technology and online accounts in their end-of-life planning—what Massimi and Baecker call “the Desirable-to-Inherit Problem” [27]. Unfortunately, a lack of awareness and preparation can result in unexpected or painful encounters with the deceased’s technologies or online presences [7], making people aware of the importance of that particular person’s digital end-of-life planning only after it has become impossible. As technologies do adapt or emerge to allow digital inheritance or post-mortem data stewardship, social computing research can move alongside technology to shape its development and understand its effects on people’s real-life experiences, as well as to inform the design of new systems that meet the needs that emerge when account holders die. To specify what difficulties should be prevented, the next section outlines the state of HCI’s knowledge about death and social media accounts.

2.2 Advance Planning and Social Media Accounts

Social media is among the technologies that have affected the most basic ways that the people who use them encounter death. Social network sites, in particular, have expanded the time, spaces, and number of people that may be touched by a particular death [7]. A handful of HCI-related research projects over the last 10 years have addressed the problems that have emerged alongside these expansions. The work to date examining encounters with death on social media has either focused on what people wish for their own legacies, or on ad-hoc memorial and bereavement activities that happen after someone dies. Recent research contextualizes technology use during bereavement among other “sensitive life experiences” that may require different standards for design [20], but how exactly deeper knowledge and design interventions can be beneficial remains unclear. Work toward this goal has described how negotiations about social media norms following a death can be argumentative or even toxic, especially in cases of celebrity death [16]. Wagner agrees that “norms for mourning in social media are in flux and consistently negotiated between users” [41]. Conflicting grief norms demonstrate the variety of ways that communities handle death and grief online, and add strength to suggestions that new technologies necessitate new approaches. In a prime example of a new approach, Brubaker et al. distinguish between post-mortem data management models of configuration or inheritance, and stewardship, which prioritizes the deceased’s pre-mortem choice of a proxy person to care for their memory and their loved ones [4]. However, inheritance remains the primary mental model regarding social media data and profiles, as evidenced in a German court decision that ruled, “online data should be treated the same as private diaries or letters, and pass to heirs” [2]. Yet the academic works we cite here indicate the variety of metaphors that are more appropriate for post-mortem social media profiles. For example, if post-mortem data is only considered property [14], the loved ones of the deceased would not continue to interact with that data in the form of messages to the deceased, as in [6].

Advance planning for digital stewardship is rare in terms of availability, and even more rare in terms of people who use the few systems that do exist. Of the major platforms, only Facebook [12] and Google [17] have created tools specifically for living account holders to make advance plans for their surviving loved ones. Building on work around stewardship, Facebook [3] implemented stewardship principles alongside user-centered design and bereavement research in HCI in the design of Legacy Contact. Yet, in a 2017 study of Facebook users, “none of the participants” had selected a legacy contact, as they “would rather just have it shut down” [18]. That study stands in contrast to the importance of memorial interactions with data described in [3], which describes a reliance upon metaphors of presence, place, or sacredness when designing the setup process for Legacy Contact. A lack of awareness of Facebook’s Legacy Contact feature was also a key finding in the one scholarly evaluation of that feature: most active post-mortem stewards had only discovered

Facebook's feature after their loved one had died [15]. The pain and difficulties participants reported in that study raises questions about whether using the feature as intended—set up by the living account holder who discusses their preferences with their chosen person—offers a better experience for bereaved stewards of memorial Facebook profiles.

Beyond Facebook and Google, cross-disciplinary research about death has informed current HCI understandings of how social media intersects with our experiences of death and dying, as outlined in [7] and [42]. Varied research about death contextualizes seemingly new online activities during times of loss as extensions or amplifications of existing practices. For instance, we might understand the social media profile of a deceased person in the context of Unruh's identity preservation strategies [40], and see how an online community reinterprets the deceased's mundane posts as significant to who they were—even sacred to their memory (e.g., [26]).

Building upon existing models of grief and bereavement, such as Kubler-Ross's five stages [25], Klass's continuing bonds [23], and Stroebe and Schut's Dual Process Model [38], Baglione et al. proposed a distinctly digital-age model for complicated grief that includes a "grief loop": while turning to online support groups could initially be helpful, one's "capacity for connecting with others, combined with the depth of the pain of grief, often pulled complicated griever into a seemingly endless cycle of mourning" [1]. While Baglione's model suggests that the ways people turn to social media following a death might exacerbate the more difficult aspects of grief, others observed the widespread benefits of touching condolences and cathartic connections on deceased people's Myspace or Facebook profiles [6, 8, 27]. Even so, the intersection of social media and death remains unmarked territory for many people. One relevant study focuses on people's handling of digital accounts and assets that are left behind with no clear instructions, contrasting desired legacy with actual digital remains [18]. Gulotta et al's study seems to suggest that the problems they identify may be solved by advance preparation or dedicated data delegation tools. This study evaluates such a tool in the context of Gulotta et al's contributions to understanding what people need from technology after a death. These studies are informative to the technological body of research because they display the value in preserving online content after a death, and may inform people's wishes for their own digital legacies by showing what is possible.

The summary of relevant work presented here outlines how advance logistical decision-making is also being applied to social media accounts, but with some vague theoretical awareness that interactions with social media data may require different considerations. The study we present here aims to identify specific areas where alternate considerations may be needed, as well as what alternate considerations could be used.

As the designs and functions of every platform tend to follow trends and advances in technology, the next section addresses the current state of design and development in introducing people to new digital processes.

2.3 Design Priorities in Setup and Onboarding Processes

Any data management tool requires a setup process where the tool is configured and preferences are set. However, death presents some challenges to many of the common conventions in technology design. New features or software products typically conform to familiar best practices in design, as well as existing limitations of how everyday people understand technologies to work. Many papers in the field of HCI have evaluated what makes good interaction design in a setup or onboarding process, such as [9], which identifies major moments of understanding and success as important, and [33], which focuses on the implications of how frequently people ignore critical information embedded in "clickwrap options": setup processes that consist of pop-up windows requiring new users to click "Yes" or "Agree." Research has identified intuitiveness as key, such as Ullrich's four subcomponents: "effortlessness, gut feeling, verbalizability, and magical experience" [39]. These

subcomponents articulate what users appreciate, value or expect in their interactions with a new digital system, and fall in line with industry standards of creating technologies that integrate into people’s daily lives without frustration or disruption (e.g. [24]).

As is evidenced by how rarely people read privacy policy or Terms Of Service clickthrough agreements [33], sign-up and onboarding processes are often seen as an obstacle to using an online service. For Facebook specifically, Nadon et al. [31] note the burden of super-granular and always-changing privacy controls, and describe how difficult it is for people who use Facebook to configure their privacy settings the way they truly want them to be. Petter outlines HCI research on how project managers might mitigate their “most common risk” of failure to manage user expectations [35]. The consequences of failure discussed in Petter’s research include the reduced likelihood of customer retention, engagement, or repurchasing—all of which are major issues that permeate the tech industry [9]. If an onboarding process is slow, frustrating, or work-intensive, users will not complete it, and the company’s success will suffer. In combination with the common reluctance to complete advance planning, as described above, it follows that technical and legal information about post-mortem data management options would be doubly difficult to convince people to complete.

Additionally, the context of designing for death and grief contains different risks and stakes. Massimi & Baecker identify ten problems in design for bereaved individuals [27], two of which hold particular relevance to setup processes for post-mortem profile management. First, the *The Reconciliation Problem*, describes experiences in which “bereaved people have to face uncomfortable situations when they handle the digital legacies of those who die, [...] and if that representation will cause discomfort for the bereaved.” Second is the *The Attitude Spectrum Problem*, in which “people hold a variety of attitudes towards how their assets will be distributed, with the majority of them unaware that it will even be an issue.” The two problems correspond to two key differences between everyday design and design for post-mortem data management: 1) because the results or consequences of digital legacy management are unknown to people, they may not be invested in the setup process of a management tool, and 2) if a person does prepare their own legacy to be handled by another, they face unknown, varying possibilities of what their chosen proxy’s needs could be in the future.

So far, research at the intersection of death and technology has largely focused on issues that occur after a death. In contrast, the research we present here focuses on the planning experiences that occur prior to death. As such, we seek to address a gap in the literature by identifying causes of difficulty as well as preventative measures. In order to address the specifics of the Legacy Contact setup process and later analyze possible changes, we now review what the Legacy Contact setup process entails.

3 RESEARCH SETTING: LEGACY CONTACT SETUP

In 2015, Facebook launched Legacy Contact to address the post-mortem management of user profiles. Legacy Contact’s primary design objectives were to care for the needs of bereaved communities and to enable people to make end-of-life choices about their Facebook profiles and data, both of which influenced the design of its functionality as well as the setup process [3]. At the time of the interviews, Facebook users would have found the Legacy Contact option in “Security Settings.” The information on this setting, as seen in Figure 1, was as follows:

Choose someone to manage your account after you pass away. They’ll be able to:

- Pin a post on your Timeline
- Respond to new friend requests
- Update your profile picture

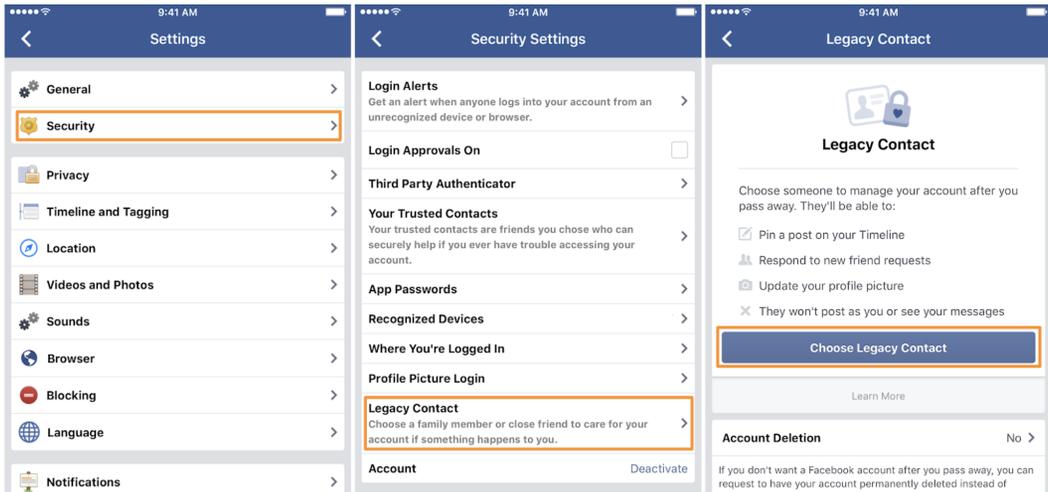


Fig. 1. At the time of the interview study (2016), Facebook account holders would navigate through Security settings to find and set up Legacy Contact. The description read “Choose a family member or close friend to care for your account if something happens to you.”

- They won’t be able to post as you or see your messages

This part of the setup process also contains a check box to allow the LC to download the account’s data archive (or not). At the time of writing, Legacy Contact settings had moved to General Account Settings, in a section called “Manage Account” which shows options to “modify your Legacy Contact or deactivate your account.”¹ The instructions for Legacy Contact settings have changed slightly to include information about the Tributes section and related options that are now available on memorialized Facebook profiles [12]. The process to select a legacy contact remains the same.

Below the instructions, the user can search among their Facebook Friends and select the person they want to be their legacy contact. As described by [3], one strategy adopted in Legacy Contact’s design was to promote interaction and conversations between the account holder and their chosen legacy contact. As such, when they click that person’s profile card, Messenger is activated with these instructions and pre-populated note:

You can use this message to let [name] know that you chose them, or edit it if you’d like. You also might want to talk in person.

“Hi [name], Facebook now lets people choose a legacy contact to manage their account if something happens to them: <https://www.facebook.com/help/1568013990080948>. Since you know me well and I trust you, I chose you. Please let me know if you want to talk about this.”

The account holder may send the message as it is, modify it before sending, or decline to send it at all. If a message is sent, the selected legacy contact will receive it via Messenger, a design decision made with the hopes of encouraging communication between the account holder and selected legacy contact [3].

If an account holder passes away, and someone notifies Facebook through an online form, the deceased’s profile is memorialized. Memorialization locks the account for security, places the word “Remembering” above the person’s name, and stops the profile from appearing in certain places

¹This description is for the Facebook website use case; Mobile app users find Legacy Contact settings under “Personal Information.”

on the platform, such as Friends' notifications [12]. If the deceased account holder had selected a legacy contact, this process also activates the legacy contact's management capabilities.

Since its launch, many people have set up or activated Legacy Contact with varying experiences, as described in [15]. The work here adds to previous empirical research by identifying how setup process issues may be connected to post-mortem profile management issues. By identifying how both sides of the experience may be related, we may understand what changes and improvements can be made to set standards for post-mortem data management across platforms and services. The work below follows existing practices of learning from breakdowns in HCI, and will allow us to account for deeper considerations of people's experiences with social media profiles and online data that will be necessary for improving HCI during sensitive life experiences.

4 METHODS AND ANALYSIS

We conducted 30 semi-structured interviews with adult Facebook account holders (11 men, 19 women, aged 19–55) in the United States who were involved in the setup and configuration of Facebook Legacy Contact. Our participants had either configured their own settings ($n=29$) or had been chosen as a legacy contact by someone else ($n=17$). In 15 instances, participants reported having both experiences, and were interviewed accordingly. The time period between when our participants had selected or been selected as a legacy contact and participating in our interview ranged from 1 day to 1 year.

Participants were initially recruited through a screener survey administered on Facebook to qualifying individuals who had configured their Legacy Contact settings, followed by snowball sampling from those participants with a goal of interviewing both the choosing account holder (hereafter "AH") and their chosen legacy contact (hereafter "LC") in every case. Ultimately, we were able to interview 9 complete pairs, which allowed us to hear both perspectives involved in a single Legacy Contact setup process, and analyze the similarities and differences in perspective that could be attributed to communication between the two individuals.

Interviews ranged in length from 30 to 60 minutes, and were conducted over video communication services such as Skype or Google Hangouts ($n=24$), or over the phone ($n=6$).

During each interview, we discussed participants' actions, expectations, hopes, and questions about the feature. We began each interview by inviting the participant to tell us about when they had configured their Legacy Contact settings or when they had learned they had been chosen as a Legacy Contact to evaluate the timeline and experience of enabling the legacy contact setting. Then, we asked participants about their awareness of each specific management capability, including anticipated need of the feature, any specific expectations about how it might be used, and their responses to hypothetical scenarios in order to examine how participants felt each feature met their perceived needs. Some of these hypotheticals included, "In the event of your friend's death, what is your hope or best-case scenario for yourself and their loved ones on Facebook?" and "What responsibilities do you imagine having in the week after the death?" Sometimes, participants were unaware of certain features. In those cases, we described the feature, and asked them to explain when they would or would not make use of it. Our interview questions on this front evolved over the course of the study to probe deeper on technical expectations, solicit feedback on specific features, and to ask participants to speculate about the use of these features in various scenarios. In order to capture the breadth of possible needs, we also asked participants for suggestions about how each feature could be improved to meet their specific needs.

Both authors conducted preliminary analyses of each interview, and continued interviews until they agreed saturation had been reached [10, p.113]. Upon completion of all interviews, we performed a thematic analysis of the interview transcripts and accompanying interviewer notes, which included details of the conversation not communicable in transcripts, such as tone of voice

Table 1. A list of participants and their relationship to the account holder or legacy contact. The left half of the table includes participant pairs where both the account holder and legacy contact were separately interviewed. The right half of the table lists participants whose counterparts were not interviewed. All names are pseudonyms.

PAIRS	RELATIONSHIP	INDIVIDUALS	RELATIONSHIP	
P1 Holly	spouses	P2 Greg	P4 Amy	friend (<i>did not interview</i>)
P3 Debbie	mother/son	P9 Patrick	P6 Ally	mother
P5 Blake	spouses	P8 Kelly	P7 Claire	friend
P12 Laura	best friends	P19 Kyndra	P10 Jess	husband
P14 Rasha	sisters	P13 Adila	P11 Jenna	friend
P15 Hannah	couple	P23 Ben	P16 Louanna	sibling
P21 Bryce	best friends	P26 Chris	P17 Sherry	daughter
P22 Trent	spouses	P25 Susie	P18 Pete	spouse
P28 Drake	spouses	P29 Nelly	P20 Jacinta	daughter and son
			P24 Andre	friend
			P27 Judy	friend and husband
			P30 Shane	girlfriend

or emotional expressions [10, p.34]. The first author re-read and coded each transcript using an open coding process, writing detailed memos describing the major categories of experiences and thoughts described by the participants. Preliminary codes included, *who is chosen*, *why they were chosen*, *length of AH-LC discussion*, *expectations of feature*, *expectations of LC*, and *caring for loved ones in the future*. Next, the first author isolated all quotes that were coded as expectations among dyad pairs, and analyzed the alignments or misalignments of expectations in the cases where both AH and LC were interviewed. Both authors reviewed the codes and memos over three rounds of analysis, combining similar codes and identifying the concepts presented below. To maintain the privacy of our participants, all names and personal details in the quotes below have been changed or obscured. Quotes have been edited for clarity.

5 FINDINGS

Through our analysis, we identified 1) who account holders chose as their legacy contact and why, 2) what discussions those people had, and 3) the resulting expectations for what managing a post-mortem profile would entail, and how those expectations aligned among AH-LC pairs. We then analyze whether participants' expectations align with how the system works. These four areas identify an effective or successful Legacy Contact setup process because they reveal participants' priorities regarding both their profile and their loved ones. We discuss each key finding in the sections that follow.

5.1 Who Was Chosen and Why

Participants represented a variety of relationships between account holders and selected contacts, including spouses (n=10), romantic partners (n=4), friends (n=8), parents and children (n=5), and siblings (n=3). Full details can be seen in Table 1.

When asked why they chose who they did (or believe they were chosen), all 30 participants reported choosing (or being chosen as) the LC because of the closeness or depth of their relationship with that person:

I actually picked my mom. It said something like, pick somebody that you know and trust. And so I picked the one person I'm closest to. (Ally, P6)

Here, Ally refers to the setup instructions and describes how they influenced her choice. Her descriptions of her choice, along with similar comments from every participant, allow us to frame each relationship in the table above as one of the closest relationships in each participant's life. This explains why, among our married participants, most chose their spouse:

Your spouse generally has access to everything in your life, and is the person who you trust more than anyone else, and so that seems to be the most appropriate person to make as a legacy point of contact with Facebook. (Pete, P18)

Pete's reference to a spouse's "access to everything in your life" likely refers to the legal and logistical rights that spouses have, and explains why spouses were the typical choice for married couples' legacy contacts, even if they were not especially Facebook-savvy. It was common for people to consider the Legacy Contact a role that could be bundled with other end-of-life responsibilities:

[I chose my husband] because if anything happens to me he would be the person that would take care of everything for me. (Louanna, P16)

Louanna expressed a common sentiment among our married participants, that it made sense for them to include Facebook with "everything" a spouse would manage after their death. Even so, some married participants did consider their spouse's disinterest in Facebook as a reason to choose someone else as their LC:

We started talking about how we wanted to be each other's Legacy and not our husbands, because they would never think about that, and it would be years later the profile would still be there. Like, her husband would be working and taking care of the kids and doing things... her page, I don't think, would be necessarily a priority. (Claire, P7)

Claire's being chosen as her friend's legacy contact implies an expectation that some technical duties would be involved in her role. Yet our participants rarely discussed technical duties, and instead described what social responsibilities their chosen LC would have. The social responsibilities our participants described were usually broad, as in Louanna's "take care of everything." The lack of specificity in such statements are consequential because it is connected to AHs choosing LCs that would have other, similar social responsibilities in the case of their death. Grouping a Facebook memorial with other responsibilities, without any detailed understanding of how memorialized profiles work, means that there was not any consideration of a person's comfort or capability with the tool itself. Greater considerations were given to understanding of the person and relationship:

I chose [my husband] because he's my best friend. You know, he would always keep my sense of humor alive. He knows my sense of humor better than anybody. That way, you can still see folks in other circles, what they'd also like to remember of me. (Judy, P27)

Judy's preferences are distinctly social: her first thoughts are of how her personality would come through on her memorialized profile, and how her various groups of friends might connect there. The mechanics of how Facebook would work were generally an afterthought for our participants; their choices were much more about who knew them well enough to make choices they would approve of:

Actually we even talked a few days after that and we didn't even bring it up. I think it's pretty straightforward. Maybe 'cause I know her so well so if anything were to happen I know exactly what she would prefer, what she would want. (Adila, P13)

Our participants' characterizations of LC choices are consistent with the deep, trusting relationships described in [15]. In asking our participants about how they discussed the selection process with their closest Person, most responded like Adila, explaining that they had very short conversations if they had one at all. We found that the lack of in-depth conversations was tied to the closeness of the AH-LC relationship: AHs selected people that had an established understanding of their deepest values—someone they felt they did not have to explain their wishes to.

5.2 Conversations About Choosing a Legacy Contact

In the quote directly above, Adila and her sister did each mention some technical specifics later in our interviews, but they had not discussed those specifics with one another. The relationships between AHs and LCs guided how our participants understood what they were doing during the Legacy Contact setup and notification process. We discuss conversations in detail here. Over half of our participants (n=17) reported having conversations in Facebook Messenger that only consisted of a few sentences after they set up LC. These conversations typically followed a simple pattern of informing and agreeing, exemplified by the matter-of-fact and transactional account that Amy shared with us:

I picked my sister because she's my little sister. Obviously, I care about her and I trust her. [We didn't talk] until after I already chose her because I know her, and we know each other. [I sent the message,] and she was like, 'Yeah, I got that the other day. That's cool.' I was like, 'All right.' So we're pretty chill about that. (Amy, P4)

Notice that Amy cites her and her sister "knowing each other" as the reason that they did not need to discuss her choice. Her explanation refers to a foundational understanding that exists in close relationships, in which one's familiarity with the other person allows one to infer what the other would prefer in unknown situations. Married participants referred to this type of practical intimacy in how their spouses expected to be responsible for all of their post-mortem affairs, even if online accounts had not been specifically referenced in those past discussions:

I chose my husband because he probably expects that. He feels as though he has access to something, and that seems to make him happy. I think I would offend him if I chose somebody else. (Holly, P1)

In commenting about the offense her husband might feel, Holly indicates how choosing a legacy contact can be an expression of confidence in the relationship. All but one of the 14 spouse/romantic-partner participants reported previous discussions with their partner about their end-of-life wishes that were unrelated to their Legacy Contact selection. Referencing other conversations about end-of-life preparation indicates that our participants saw Legacy Contact as belonging under the umbrella of decisions that had already been discussed. Sibling and parent/children pairs reported similar assumptions of understanding and closeness. Friends among our participants described one another as like family:

[I chose] a family friend who I've known for quite a few years. And she actually handles all of—not power of attorney, but our healthcare stuff. She covers all of that. She's just somebody who is very trustworthy and somebody who would do exactly what I requested. (Jenna, P11)

Within these family-like friend relationships, all eight participants reported a sense of understanding without any thorough discussion of the feature or setup process:

I picked my best friend. I've known her since I was 12. I mean she's really the only person in my life that I trust right now. I read through [the message] and I think it had a link for help on that page. I'm not sure, but I guess it said that she was going

to be my legacy contact. And then she sent the sticker with the face with the real big heart on it. She understood what it was. And she knows why I picked her. Real simple. (Andre, P24)

Andre's message-sticker exchange with his LC could hardly be qualified as a conversation, but seems to have communicated what the two friends considered necessary.

A general assumption among these participants was that, because they had provided instructions or wishes in other areas, they did not need to provide additional instructions for Facebook. However, when end-of-life wishes had never been discussed in any context, participants still expressed confidence that their understanding of the person was sufficient to guide their actions.

In fact, eleven of our participants reported not having spoken at all with their counterpart about the selection process. In Trent's case, the lack of conversation was for similar reasons to the short conversations that others described: the "death conversation" had already occurred in relation to other affairs:

I'm in the military, so we're pretty practical, and have wills and power of attorneys and stuff like that. I've been through several deployments. So she's kind of— that matter is just kind of routine, like, oh, yeah, I updated the will, and you're it. So it's nothing crazy or anything. We haven't discussed it. And really, I don't care what she does, make it a memorial page, delete it or whatever. It's for her, for others. It's not for me. (Trent, P22)

Otherwise, participants who did not discuss LC said they intended to discuss things with their counterpart, and had not yet had a good opportunity to do so. In Chris's case, he only realized his need to ask questions because of the details in our interview:

I guess I'd ask things like would you want me to delete it, would you want me to keep it up. Would you want me to change anything, like the profile picture you were mentioning. I really hadn't thought about it in specific before. (Chris, P26)

We did not follow up with Chris about whether this conversation happened or what it was like, but other interviewees did describe in-depth conversations on this subject. In two cases, the Legacy Contact setup process prompted our participants to have their first serious discussion about their end-of-life wishes with the person they chose. As with short conversations, participants described wishes that are associated with responsibilities like caring for other loved ones—wishes that are indicative of values rather than specific technical instructions. Shane is a rich example of how significant these social responsibilities can be: he had had significant health issues, and his girlfriend was aware that she might actually need to do the things he was asking by making her LC. Their tearful conversation included her thanking him for the honor of choosing her, and sincere promises to fulfill the solemn duty she would have:

She had no clue what the hell a legacy contact was. Honestly, it wasn't until I brought it up, 'Hey, did you get any kind of a notification or anything?' She was like, 'Yeah, I got something, but I didn't know what the heck it was.' I guess I was under the assumption that she wasn't going to hear about it until I passed. Once she got a notification about it, we had to sit down and discuss exactly what was entailed in all that and, you know, hopefully to express my wishes of how I wish to be carried forward upon that happening. Like, I have a sister that I haven't spoke to in, I think it's... three years. So I pretty much said that, if I die and she unblocks me and wants to be friends or something, that that's fine. (Shane, P30)

Along with effectively communicating social goals, these conversations proved to be beneficial to the AH-LC relationship overall:

We touched on [the topic of Legacy Contact] a couple times throughout the last couple weeks, initially just a couple sentences. Then we talked about it more because I found out about this interview. I guess, in a way, talking about this has let the two of us grow closer. (Laura, P12)

Though interview questions addressed the technical details of the feature, most participants confessed to not having read or considered those details, and only offered their thoughts on them in the moment. The lack of familiarity with the details suggests that the design decision to prioritize not worrying the chosen LC over providing lengthy, detailed requests may have resulted in this lack of detailed discussions or considerations. Without knowledge of technical details, the conversations that people did have with their AH or LC counterparts were rooted in social responsibilities that led to assumptions about what LCs would be capable of once the profile is memorialized. For all of our participants, AHs and LCs alike expressed confidence that they had communicated (or could communicate) well about their selection and expectations. The next section details more specifics of what expectations our participants described to us, and some technical assumptions about how their social goals might be carried out technically.

5.3 Participant Expectations and Social (Mis)alignment

In this section, we detail four of the most common expectations reported by our participants: access and curation, communication, memorialization, and deletion. Because the Legacy Contact system is set up by one person, then used by another, it was important for this study to compare the expectations of the person on each side of the legacy contact request (hereafter, “AH-LC pair”) in addition to understanding each individual’s expectations. We interviewed 9 complete AH-LC pairs to analyze how aligned those 18 participants were with their counterpart, and to consider the possible ramifications of misalignment. The Legacy Contact setup process was designed with the goal of prompting conversations between AHs and the person they had chosen to be their LC [3]. That intention is apparent throughout the setup process, especially in the integration of Messenger and the text suggestion in the message composer interface that “you might want to talk in person.” Brubaker and Callison-Burch detail that the priority in composing this message was to prompt discussion without prompting alarm [3].

In each section below, we first define what expectations participants had of the system and each other, followed by an explanation of how those expectations could break down due to misalignment between people. Alignment of expectations demonstrates the effectiveness of participants’ communications about legacy contact choices. Aligned or misaligned expectations are shown with corresponding arrows between each quote. We include specific examples that distinguishing between the social responsibilities and the technical tasks behind participants’ expectations. We conclude by describing some commonalities among the four expectations.

5.3.1 Access and Curation. The majority of participants expected the LC to have the same level of access to the account that the AH had ($n=26$). They felt that “super-admin access” (as Trent, P22, said) to the deceased’s profile would be appropriate for the LC to care for the profile. Some participants anticipated this level of access by citing the positive interactions they had noticed on other memorialized profiles, and discussed how a LC’s management could facilitate those interactions:

The reason why I said I would want someone to keep up my Facebook for so many months, maybe up to a year so you can kind of look at it as—I think it’s nice when you see everyone coming together for a person who has passed, their loved ones coming together, expressing how much love they had for that person and their appreciation to that person. (Adila, P13)

In contrast to the touching expressions Adila described, other participants were aware of how people could interact on the profile in ways that would be harmful. They expected an LC to handle or curate such things:

He should be able to do anything, like if somebody wrote something vulgar, at least he'd be able to delete it. Somebody commented something, and he could delete it. If he couldn't do that, it'd be really upsetting. (Judy, P27)

Jenna (P11) referred to such a situation she had witnessed on a friend's memorial profile that motivated her to set up Legacy Contact:

Our friend who died, he had a marital issue, and unfortunately this female is posting things that the mom had to explain to the kids. They couldn't control who's putting stuff on there. So it's very upsetting because she's trying to protect her children but people will post things that shouldn't be on there. I don't mess around with things. It's very important to me that my profile stuff is staying respectful for my child. (Jenna, P11)

Having seen her friends have a hurtful experience, Jenna expressed relief that a legacy contact would be able to delete hurtful comments that might arise on her own memorial profile. Rather than referring to the available list of Legacy Contacts' capabilities, participants first considered what they wanted to do, then turned to functionality they were familiar with when envisioning how they would accomplish that goal.

Participants' expectations that LCs would have full access, especially for curation, indicates their confidence in the LC's ability to facilitate any tributes or conversations that the bereaved community needed and intervene in any problems that may arise. In short, participants typically expected that choosing a legacy contact meant giving that person the necessary tools to care for their bereaved community.

Most paired participants were aligned in their assumption that the LC would have full access to the AH's memorialized account for the purposes of logistics and community care:

Aligned Expectations:

AH: If I'm gone I may as well let her have full and complete access to it and be able to get at things that she needed to. (Blake, P5)



LC: It allows people to get on the Facebook of people that have passed and to be able to take over their Facebook page. (Kelly, P8)

The words participant pairs used to describe the kind of access the LC gets were non-specific and far-reaching: "full and complete access," "take over," "be in charge," "permission to go in."

In contrast, Susie (P25) was one of four participants who understood the limited access of LCs despite Trent's assumption of more control:

Misaligned Expectations:

AH: She should have super admin control. I'm dead, I wouldn't care, I want her to be in control. (Trent, P22)



LC: It's probably good that we don't get to see all of his personal messages as well. I'm assuming I'd be fine to do it but, maybe if I wasn't emotionally ready, it would just be too much. (Susie, P25)

Even Trent’s clear expectation of “super-admin control” was misaligned with that of his chosen LC, Susie. Susie appreciated her lack of complete control in the inability to see his Messages, referring to possible difficult emotions that would inhibit her feeling capable of carrying out some tasks. Their misaligned expectations have two possible consequences. First, Trent may absolve himself of discerning any specific instructions that could help Susie upon his passing. Second, Trent may base some end-of-life preparations upon capabilities that Susie would not have or want, and thus may not complete.

Misaligned expectations among a dyad expose a gap between the AHs’ concerns and their LCs’ concerns: like Trent, other AHs saw their death as precluding them from being affected by anything happening on Facebook. In contrast, their LCs understood that they, and the AH’s contacts, might be deeply affected and possibly not “emotionally ready” to honor the deceased online. Following the wishes of the deceased person matters for the loved ones they leave behind; those wishes being unknown or impossible to follow may add to people’s pain and confusion.

Even if emotionally ready to carry out the AH’s wishes, LCs may find far fewer capabilities than they expect. Participants’ prevalent expectation was that Facebook accounts would function, as Hannah (P15) described, “like a checking account” in which the named person receives unlimited access to what is in the account. Because our participants did not expect limits, they did not discuss specifics. When we prompted them with specific changes the LC could make, participants discussed photos as important, both as representations of the deceased in their profile or cover photo, and as memories to be shared among the bereaved community.

Aligned Expectations:

AH: My immediate thought was, you know, gee, she’d want to have access to the pictures, like pictures of the land where I grew up. And the reason why is, you know how sometimes people put together those collages of pictures when you pass away? (Blake, P5)



LC: I’d leave up some really important historical things, pictures of the ranch would be super, super important for him. (Kelly, P8)

Our participants discussed sharing and storing photos as a key element of their Facebook interactions, which made photos a common reference point for identifying particular expectations for post-mortem profile management.

Misaligned Expectations:

AH: I don’t know what he can do. It’s just like, I got a general understanding, but not really deep. (Nelly, P29)



LC: I can manage her profile. I shouldn’t be able to read her messages. But other things like updating photos, I can do that. (Drake, P28)

Here, there is no disagreement about photos specifically, but Drake’s reference to photos highlights his particular knowledge in contrast to Nelly’s reported lack of knowledge. Their different levels of knowledge reflect the lack of urgency AHs felt to fully understand the feature, in comparison to the deep importance that LCs reported. Drake was an outlier in his knowledge of what LCs can do: only two LCs (Drake and Susie) described their capabilities as limited in any way. Their understanding of specifics may indicate that they read the Help Center information, but

neither mentioned doing so. The fact that 28 of our 30 our participants had not read all the available information is cause for concern. While we can only speculate on the reasons, possible explanations include a lack of urgency in their minds about the setup process, whether they took it seriously, or whether they assumed they could discuss and learn later. The ability to discuss options as needs arise is a key issue we engage in the next section.

5.3.2 Communication. The most commonly mentioned LC capability was that of informing the social media world of the AH's death and funeral services, confirming findings from previous research in this context [4, 30]. However, in the context of post-mortem data management where it might be easy to think in terms of managing accounts and assets, participants instead equated designating a Legacy Contact with choosing the communicator of that sensitive information. AHs we interviewed saw Legacy Contact setup was a way for the AH to be sure that their loved ones would learn of their death through a trusted source, especially for non-mutual friends. In addition to confirming the death, participants expected LCs to engage with people who would expressed condolences:

I'll probably tell her, I want you to keep my Facebook. I want you to respond to the comments of what people say to me. (Adila, P13)

For participants like Adila, acknowledging and validating comments on the memorialized profile is an important way that LCs would be present for the deceased's loved ones, especially if physical distance makes communication otherwise difficult. Pete (P18), had a similar expectation for his spouse as his LC, as his social connections were widely dispersed:

For me, because I have friends and family in so many different places, I think it— that purpose of Facebook has more value to me. And I don't stay in regular telephone contact or e-mail contact with all my friends. When there's something to communicate about, we communicate, and that's why Facebook, in the sense that it's like the old bulletin board systems, is very useful. (Pete, P18)

Pete cites Facebook as the easiest way for his LC to inform people of his passing, comparing the communication to a bulletin board: it is public and trusted enough to provide adequate information to more distant connections. Similarly, Debbie, P3, was certain that her LC's act of memorializing her profile would be adequate to informing her Facebook connections of her passing. However, Debbie did not describe what exactly she expected memorialization to entail. Other participants did address the technical and social specifics of the LC memorializing the AH's profile.

The details of each pair's expectations focused on broadly sharing critical information like memorial service details, invitations to other remembrance events, and of course, the fact and details of the account holder's death.

Aligned Expectations:

AH: She should be posting memories, maybe telling people the circumstances of my death and information about the funeral. (Laura, P12)



LC: I'd write a message and kind of tell them what Legacy Contact is, and that we already like had decided it a while before. Or maybe explain it in person and just write 'in memorial' on her wall. (Kyndra, P19)

All participants described Facebook as the easiest way to notify people connected to the AH about their death. Some participants referred to alternative notification strategies of the past, like making numerous phone calls, to demonstrate how Facebook would simplify the process.

Who shared the news of the death also mattered, which is apparent in participants' indications that the LC would be the appropriate person to do so. Yet, more probing questions about this kind of communication revealed that initial notification of the death would not be the LC's only communication responsibility. Along with notifying Laura's connections of her death, Kyndra's comment acknowledged that the memorialized Facebook profile would require some explanation. Participants who referred to explaining their role as legacy contact aimed to avoid confusion for people who primarily keep in touch with the AH on Facebook, highlighting many stakeholders to whom post-mortem stewards may find themselves responsible, beyond the closest loved ones of the account holder. It was common for AH-LC pairs to be misaligned about ongoing communications with the deceased's Facebook contacts. Holly and Greg's discussion of LC communication sticks out both in their misalignment, and in the timeline of their expectations.

Misaligned Expectations:

AH: I hope that they get something out of it, that they find out that they are not the only people who knew me or who cared about me. And that they find some kind of comfort in that, that they see that they're not alone in the world... (Holly, P1)



LC: My role would be making sure that her memory is maintained— that the “brand” of her, for lack of a better term, is still maintained on that level so people can still kind of discover about her and her life and things like that. (Greg, P2)

While both Holly and Greg expressed a focus on the community, their motivations differ: Holly imagines her loved ones using the profile to connect with and support one another, while Greg imagines people staying connected to Holly herself. Their difference could be identified as bereaved-focused vs. deceased-focused. Misalignments of focus reflect the account holder's acknowledgement of their loved ones' potential connections to one another through the death. Concurrently, legacy contacts tend to recognize the continuing bonds with the AH that could be maintained through the profile over time [22]. Misaligned expectations about the LC's communication with the AH's Facebook friends are most consequential to non-mutual friends and the AH's more distant connections. If the AH expects Facebook to serve a core communication purpose, they may not prepare other methods of contact for the LC to reach their friends. If the LC is unwilling or unable to communicate about the AH's death over Facebook, the non-mutual or distant friends may not learn about the AH's death in time to respond how they wish. In terms of urgent responses, the consequences of misaligned communication expectations decrease over time. The indefinite timeline of activities that maintain one's memory leads to an interesting discrepancy in the use of the term “memorialization,” which we explain next.

5.3.3 Memorialization. In a technical sense, “memorialization” refers to changing the profile from a state of active use by the account holder to a preserved state that allows for reminiscence. Most participants expected that their chosen legacy contact would be the one to “press the button” to make that change. It was important to our participants that their online connections understood that a specific loved one had memorialized the profile, rather than wondering how it had happened or assuming it had happened automatically. Debbie discussed seeing this type of confusion on other memorialized profiles, and how she saw setting up Legacy Contact as the way to mitigate that confusion: “Memorializing should be my son's job, not Facebook's” (Debbie, P3). No participants could describe what steps to take to memorialize a profile. In fact, some indicated an expectation that the memorialization of the profile, and their ensuing management capabilities, would be automatic:

People would write stuff on my wall... if it says RIP 100 times, they have a crazy algorithm that knows... it would know, just how it's linked to my Amazon and suggests stuff I just looked at. There'd be a public announcement from family members, then people would post sad faces. (Trent, P22)

The prevalence of participants' expectation that Facebook can "just know" when a user has died is related to their everyday experiences with the account. Trent had noticed that the system knows he is shopping on another sites, so his perception of Facebook's omniscience extends to his mortal status. In contrast, others expected memorialization to be a manual request on their part:

I'm assuming that it would have to be me that would activate it or that would put it into deceased mode. (Susie, P25)

Participants' general lack of understanding complicates what Debbie may have meant by "memorializing" being her son's job. All AHs and LCs agreed that making the profile a memorial space would be the LC's responsibility, yet did not clarify whether "memorializing" meant simply requesting that the profile be changed, or the ongoing management of the profile as a memorial space. Participants spoke of that act possibly being part of the features to which the LC has access within the deceased's profile, or of them only needing to confirm the death rather than report it. Given that on Facebook none of the legacy contact's capabilities are available until after someone has requested memorialization, it does not bode well that none of our participants seemed aware of how to make such a request.

Expectations between AHs and LCs around memorialization were almost always aligned. However, there were nuances in their expectations that lead to the social use of the term "memorialization":

[Legacy Contact] gives somebody the option of making it a memorial account or something to that effect, and make it like a memorial-type thing in case something should happen to me. (Amy, P4)

Amy's choice of words, "making it a memorial-type thing," equates the AH's Facebook profile to other memorials: along with verifying the death, memorials may be public, often-visited, or contain an ongoing collection of condolences for those grieving the loss. Amy expected her LC to be in charge of sustaining this memorial, referring back to the access and management capabilities described above.

Patrick, meanwhile, indicated that his mother (Debbie) would have preferences about how she would like to be memorialized. In considering Debbie's preferences, Patrick expected that there would be a way to manage a memorialized profile that would not be to her preferences. He is misaligned with Debbie's expectation that memorialization should be entirely up to him:

Misaligned Expectations:

AH: Memorialization should be my son's job, not Facebook's. (Debbie, P3)



LC: I think my responsibility would be to make sure that my mom is memorialized, as well as I know how she would like it on Facebook. (Patrick, P9)

Laura (P12) had a similar perspective to Debbie, that the LC should be "confirming the person had died," while her LC Kyndra (P19) implied that "making it a memorial thing" would be an ongoing responsibility for her to be in charge of.

Participants' preference for LCs to be the one to trigger memorialization may suggest that, in addition to the communication expectations we've discussed, even the simple task of memorializing a profile has important social meaning. In this way, assigning a legacy contact can be seen as an extension of identifying one's next-of-kin, and memorializing the profile may be seen as a socially meaningful responsibility. Memorialization was not the permanent desired outcome for all participants; we also discussed the preference of deleting a profile after death.

5.3.4 Deletion. Most participants expected the LC to be able to delete the deceased's account. In fact, most participants viewed the legacy contact setup as a choice of who should be allowed to memorialize, and *subsequently* delete the profile. The purposes for memorialize-then-delete expectations involved informing the community of the death, informing the community of memorial services, allowing people time to collect photos or post stories for others to remember, then freeing the loved ones from unexpected interactions with the deceased's digital presence.

I know there's been many debates and a lot of court cases where people want their family member's Facebook shut down. I didn't want that to be on anybody. So I figured if I were to [make her my LC] she could just do what I wanted her to do to begin with. (Jenna, P11)

Jenna's assumption reveals that her goal in making her friend her LC was to remove legal barriers and make managing her Facebook account easy. While Jenna had specified that having the account "shut down" was her ultimate expectation, others wanted deletion to be up to their LC:

I would want her to be the one to be in charge of that. I would like her to be— to make the call of whether this account should be closed or if she would need some information from my account that would be valuable, and then she would deactivate it. (Rasha, P14)

It is unclear whether "close" or "deactivate" meant the same thing to Rasha as "memorialize" or "delete." However, while Rasha did not provide specific technical expectations, it is clear that she felt her LC should have options rather than instructions. Trent, P22, expressed a similar expectation:

It's essentially a way for me to give her the level of control to edit, delete, take it offline, or whatever she wanted to do with it, for the most part. That's my understanding of it, but I didn't really read too much into it. (Trent, P22)

Trent confessed his uncertainty about how LC works, and so was aware that his expectations of what his spouse could do as LC could be incorrect. Even so, his overall desire was clear: his wife should do "whatever she wanted," rather than need his instructions. He later explained why her preferences should dictate what would be done with his profile:

If I pass away, it's not for me anyway. Like, I don't really care what's on there, but I'm sure my wife will care. That's really why I put her on. If she decides to turn it into a memorial page or whatever. Again, it's not for me. (Trent, P22)

In these examples, participants expected deletion to be an option for LCs, but differences emerged among pairs in whether and how deletion should actually be completed. Deletion is the category in which we found the most misalignments between AHs and their LCs. For example, Debbie and Patrick had different timelines in mind:

Misaligned Expectations:

AH: If I pass, my son should memorialize it, wait about a month or so, then deactivate it. (Debbie, P3)



LC: I'm going to say maybe three to six months, to give people a fair amount of time to go through what they should go through. (Patrick, P9)

In this example, both Debbie and Patrick expected a delay in deletion, but only Patrick explained the purpose for that delay: his mother’s friends would need to “go through” her Facebook profile for personal reasons. Others who expected delayed deletion specified that people would want to post condolences, connect with others who were grieving, or retrieve photos that may not exist elsewhere. A misaligned expectation of the timeline of the memorialized profile’s use is consequential due to the activities that the AH does not anticipate. This may lead to AHs unintentionally preventing actions that their loved ones would eventually need to complete. Some misalignments occurred because AHs were ambivalent about whether their profile should be deleted after their deaths (as Hannah says below), but some, like Blake, P5, had second thoughts upon realizing that their data, like photos and videos, would be deleted too.

With considerations varying from saving meaningful content to ensuring broad knowledge of the death, all AHs expressed that the decision to delete their profile would be best left up to the LC, and expected a short time frame for the memorialized profile to be needed. In contrast, LCs generally reported reluctance to delete the account, and had a longer timeline in mind for the profile than the AH did (as in Debbie and Patrick’s statements above).

Misaligned Expectations:

AH: If I’m dead, then my Facebook account should be gone. And I would want her to be the one to be in charge of that, to get rid of it. (Rasha, P14)



LC: I would keep it. I wouldn’t delete it. (Adila, P13)

AH: He can go in and get access to my information and to shut it down or whatever. (Hannah, P15)



LC: Later on, people may be looking for historical references to my wife, and grandkids could be looking for stories about grandma, doing family history and trying to make some connections. (Ben, P23)

Of all of our participants, Ben considered the longest time frame, discussing how future generations might use a memorialized profile to learn about his girlfriend Hannah. Hannah did not consider the same time frame, saying he could “shut it down.” Our participants’ misalignments about deletion represent a division between AHs and LCs about time: AHs do not mind (and in some cases even prefer) their profile being deleted, while LCs anticipate valuing it over a longer period of time. AH preferences here indicate again that they feel precluded from being affected by post-mortem interactions on their Facebook, and thus may consider their profile to be indicative of their actual presence: once they are physically gone, they should be digitally gone too.

5.3.5 Commonalities Among Expectations. Over all four types of our participants’ expectations, there is a strong theme of selflessness among account holders. No one wanted to declare their own importance, or specify the narrative of their lasting memory. Trent’s statement affirms the reality that our legacies are always written by others. Whether romantic partners, friends, or relatives, AHs chose their LC because of both the honest and/or favorable legacy they would construct, and because of their capacity to care for their loved ones by proxy. Because a care-by-proxy expectation exists for other end-of-life responsibilities that people take on for those they love, it makes sense that our participants would insert Legacy Contact into their existing mental frameworks, as Greg, P2, did:

You know, most people, a part of their life involves Facebook, so... I assumed this sort of thing already existed in a weird sort of way. (Greg, P2)

Though Greg did not specify what exactly he presumed to exist before Legacy Contact launched, he expressed an underlying general expectation that, in taking care of someone's affairs after their death, Facebook would contain options that would be available to the appropriate people. We found that, based on each of the expectations described above, our participants had no indications that Facebook's post-mortem profile management options would be drastically different from any other post-mortem management task.

Without thorough communication, one might assume that AH-LC pairs would not have aligning expectations about what the LC's responsibilities would be. Yet our analysis shows that the overall expectations of each pair tend to be strongly aligned. Sometimes, pairs were not aligned or their expectations were too broad or vague for us to reliably determine alignment. However, in all of these cases, AHs expressed confidence that any choices or actions taken by the LC would be appropriate and aligned with the AHs preferences (even if unspecified). Counter-intuitively, misalignments between people's expectations and system functionality become even more troublesome when AHs and LCs *are aligned* in their expectations. While *misalignments* between AHs and LCs might prompt discussion and investigation into actual functionality, which in turn could help resolve misunderstandings, ACs and LCs who are *aligned* might actually result in the exact opposite effect. AHs and LCs who were aligned in their expectations about Legacy Contact but misaligned with the system's actual functionality were often confident in their incorrect view of how the system works. In our data we saw numerous instances of pairs overlooking technical details to instead focus on each others' personal needs. Their alignment may serve to reinforce their understanding of the system, even when incorrect.

Having established what expectations our participants had as individuals, we proceeded to analyze how expectations aligned between participants and the system's actual capabilities, with special consideration for sets of expectations that might prove problematic—or even painful—in the event of the account holder's death.

5.4 Technical Misalignments and their Social Consequences

While in Section 5.3 we discussed the expectations and responsibilities, here we revisit those findings with an eye towards technical capabilities the system actually provides. Participants tended to expect that an LC would receive full access to the AH's account once memorialized. However, the design of Legacy Contact explicitly adopted stewardship as a model given the issues that inheritance presents for social media [3]. The differences between our participants' expectations of Legacy Contact and the actually experiences with Legacy Contact documented in prior work [15] suggests possible difficulties that our participants may face based on the current understanding of the system.

In Table 2, we summarize our data by comparing the realities of how Legacy Contact works (as described in Section 3, and further described in [3] and [12]) with the expectations our participants reported during our interviews.

Of the expectations and capabilities listed here here, LC's lack of full access to the account to be the most consequential. Our participants expected full access in order to care of the AH's community in the ways requested or imagined. Furthermore, in cases where the LC had the AH's username and password, memorialization presents an additional challenge. Signing into an account is disabled after it has been memorialized, which could leave LCs feel unjustly locked out of the AH's account. For these particular participants, it is only possible to know that they felt hypothetically capable of stewarding the memorialized profile post-mortem, as they had no hands-on knowledge of the

Table 2. Summarized expectations compared to related LC system capabilities.

Common Expectations	Actual System Capabilities
The LC will get full access to AH's account after the AH dies.	The LC is not granted full access to the AH's account. At the time of this study, the list of four LC capabilities shown in Figure 1 were the only actions LCs could take.
The LC can delete inappropriate content posted to the memorialized profile by others.	At the time of these interviews, LCs could not delete any posts on the memorialized profile. Friends of the profile could report harmful posts (as on any active profile), which does not guarantee deletion.
It is the responsibility of the LC to inform the AH's network of the AH's death.	Legacy Contact does not provide any way to directly communicate with individuals in the AH's network. The LC can pin a public, informational post to the top of the memorialized profile, which retains its prominent position even when subsequent timeline posts are added.
Memorializing the profile is the LC's job, and the capability to memorialize the account is uniquely available to the LC within the AH's profile settings.	Anyone in possession of a death certificate can request that an account be memorialized by completing an online form and providing documentation. Requests are reviewed by a member of Facebook's Community Operations team who verifies the account holder is deceased prior to memorializing the account.
In cases where deletion of the AH's account was desired, the LC can first save photos for offline use.	The AH's photo albums and tags remain intact. The LC can (if the AH had allowed) download an archive of all the AH's Facebook data. At the time of these interviews, it was not possible for a memorialized account to be deleted.

management tools. At a granular level, participants expected the system to allow them to curate posts on the timeline (which is not possible)² as well as pin informative posts, changing the profile and cover photos, and accepting new friend requests (which are possible).

The specific circumstances of bereaved individuals and communities vary widely, and the actual needs of those who would be grieving the AH could not be known until their death.

The unknowability of the community's needs made answers to specific question difficult for participants to articulate. The expectations people had of Legacy Contact as a feature, and that AHs and LCs had of each other, were typically discussed in broad, even vague terms. Vagueness is cause for concern because it means that even when AH and LCs are aligned in their expectations, LCs may not be exposed to unfamiliar and specific decisions to be made until after the AH has passed away, and consulting them has become impossible. It is also concerning that participants' expectations were reinforced by their brief communications, and nothing within the system had indicated that their expectations might not be accurate. While these broad expectations might provide some leeway in other contexts, when considering post-mortem systems they present a serious problem. After a profile is memorialized, settings cannot be adjusted over time as issues arise and needs change.

Legacy Contact functionality is only activated post-mortem, meaning that LCs will only encounter issues after the AH has died and when settings can no longer be changed. Moreover, the expectations AHs and LCs have of each other are emotionally charged, making it all the more important to avoid misalignments between people's expectations and system capabilities. The finality of activating a legacy contact's capabilities makes it all the more important to ensure that the pair's accurate and mutual understanding is confirmed while they are still able to make changes. Aligned expectations

²As of April 2019, it is possible for LCs to curate Tribute posts and request the deletion of the memorialized profile they manage [12].

for something as sensitive as managing someone's memorial reflect shared values between the two people, making it all the more critical for alignment to be achieved and respected in the context of post-mortem designs. If the LC were to find their value-based expectations impossible to meet within the system capabilities, that impossibility positions the system as contrary to the values in that relationship—an especially serious and personal violation for someone who has just lost a loved one.

Both existing post-mortem management setup processes by Facebook and Google are currently framed as hand-offs from an account holder to a designated contact. A simple hand-off would be unproblematic if the AH-LC pair's expectations are aligned with one another and with the system: both people know how the system works, and the AH has specified what the LC should do with their limited capabilities. In situations where the AH and LC are misaligned in their expectations, the LC may feel some frustration, but would be able to fall back on the AH's trust in them to make different decisions than what was specified by the AH. Misaligned technical expectations may be compounded by the alignment (or misalignment) of expectations between AHs and LCs. The most painful consequences would arise in situations where the AH and LC are aligned in expectations that are not possible within the system's capabilities. Consider this assertion alongside experiences characterized as "broken trust" in [15]. We find that misalignments between LC expectations and the system's technical capabilities are likely to be the root cause of the difficulties previously described by active legacy contacts. Misalignments present the challenge of how post-mortem data management setup processes might be redesigned to ensure both social and technical alignments.

6 DISCUSSION

In this section, we start by considering how the setup process of Legacy Contact, while achieving many of its design objectives, does not adequately encourage in-depth consideration about memorialization, and as a result, may cause the misalignments described above. Next, we suggest that a departure from focus on efficiency in design, toward known alternatives in HCI, could address general end-of-life planning difficulties described in Section 2.1, as well as difficulties specific to technology described in Section 2.2. Finally, we discuss open design challenges for post-mortem profile management systems demonstrated by our work here, and possible paths forward for both research and design in HCI for sensitive life experiences.

6.1 Achieving an Aligned Post-mortem Data Management Setup

Post-mortem data management systems should allow loved ones to attend to the deceased's digital affairs. Ideally, account holders and their digital stewards have a shared understanding of the account holder's expectations and that those expectations are developed in relationship to the functionality the system provides. However, our research demonstrates numerous and often subtle ways that misaligned expectations—between people and systems—can present significant problems that are unsolvable post-mortem.

Informed by research at the time, implementation of Facebook's Legacy Contact system was built with two design objectives: 1) "care for the needs of the bereaved community," and 2) "enable people to make end-of-life choices about their profile and data" [3]. Central to their efforts was facilitating conversations between AHs and LCs. Yet as the findings above show, many of our participants "hadn't really thought about the specifics" (Chris) around post-mortem data management even though they had setup Legacy Contact or been appointed as steward. The lack of awareness about the specifics presents issues for how to design post-mortem data management systems, as well as for how to encourage users to both configure such systems and engage in appropriate conversations with those who will eventually use them.

Prior work on post-mortem profile stewards details the pain and difficulty that have resulted from systems not working as expected [15]. We find that our alignment framing of the setup process may help explain some of the root causes of those painful experiences and provide insights for designers aiming to prevent similar experiences for others in the future. If LCs understand that their management capabilities are limited before they ever need those capabilities, they avoid any feelings of overwhelm or confusion that might arise alongside the grief of the AH's death.

A simple inclusion of screenshots of the post-mortem steward's management interface could contribute to people's understandings of what the platform's memorial management entails, as it would make the limited functionality evident. This may need to be clarified because the expectation of full access is likely based on the only type of Facebook access that people are aware of: their own. Explicitly disclosing the LC's limitations may also help prompting in depth conversation between AHs and LCs by presenting what specific decisions there will be for the LC to consider. While providing detailed information might help to clarify expectations of the system, such instructions are only useful if people engage with them. For that reason, it is important for us to consider the architecture of the setup and onboarding process in post-mortem systems, which we detail next.

6.2 Alternative Design Priorities for Setting Up Post-mortem Data Stewardship

At first glance, it might appear that the use of a conventional setup and on-boarding process in the design of post-mortem data management systems would be adequate. Participants reported little difficulty when selecting a LC and no participants felt overwhelmed by a complex system with too many options. Yet our analysis shows that participants had limited understanding of the system's functionality and often made inaccurate assumptions.

Meanwhile, coordination between AHs and LCs during setup also initially looks promising. Despite the choice of using of an intentionally light-hearted message to facilitate communication between AHs and LCs during setup, AH and LC expectations were generally aligned. However, a closer look at the interactions between AHs and LCs during setup, and the vague expectations they held, point towards some familiar challenges for end-of-life planning, especially regarding technology. In line with the Desirable-to-Inherit Problem [27], participants had trouble articulating any future importance their memorialized Facebook profile could have. They rarely reported any urgency in making specific decisions about it. Prompting meaningful conversations was the goal of using Messenger, supported by a pre-written message that was light and approachable. Yet only two of our 30 participants had any substantive conversations. Moreover, both of these participants had life circumstances that made end-of-life planning more immediately pressing.

6.2.1 Implementing Principles of Slow HCI. When we consider the unique challenges in existing work on designing for death (see Section 2.1) alongside the findings presented here, we begin to see limitations of designs that prioritize intuitiveness and efficiency. Turning to work on "Slow HCI", however, provides us ways to reimagine how setting up configuring post-mortem systems might be improved.

Slow HCI is an extension of "slow technology" (originally coined by Hallnäs & Redström in 2001 [19]), and has been adapted for reminiscence and other thoughtful practices by Odom et al. [34]. Slow technology describes design principles that stand in contrast to typical "fast technology: efficiency in functionality with respect to a well-defined task" [19, p. 203]. Additionally, slow technologies "can aim to invert values of efficiency in the service of supporting experiences of pause, contemplation, and reflection" [34, p.817].

Slow HCI expands upon Hallnäs & Redström's work to address interactions that may take place over years rather than seconds [34, p.817]. Slow HCI design principles provide room for users to take a technological pause for more intentional contemplation of the future, and reflection on the

past. Our findings strongly confirm Odom’s research, suggesting that designers can do better to support the bereaved as they perform the hard, heavy work of coping with digital remains.

Consider the objective of promoting meaningful conversations between AH-LC pairs. Applying principles of slow HCI, one might imagine replacing the open ended chat-based approach with a structured conversation process that requires iterative back-and-forth interaction between the account holder and their chosen steward. For example, one prompt might ask each person to choose their favorite photo of the account holder. The system would then prompt the pair to compare their responses, and discuss whether the photo would be fitting as the centerpiece of a memorialized profile.

Slowing down the process of reading and responding to details of the functionality may be a feasible approach to increasing people’s presence with one another and awareness of the decisions they are making with each click. Requiring iterative responses would emphasize that each decision should be made thoughtfully and communicated well. A specific choice, followed by a prompt to justify that choice, could reveal each person’s motives or values for making those particular choices, in turn revealing potential misaligned expectations between the parties while limiting their discussions to choices the system actually allows.

6.2.2 Design Tensions for Thoughtful Setup. Priorities for interaction design of post-mortem management setup are conflicted between ease and efficiency, and slowness and reflection. Legacy Contact specifically had to work within users’ existing expectations of a platform they use for everyday communication, but with some key differences: setup occurs in the present by a person other than the eventual user, and with long-term ramifications. As [3] notes, that there is more at stake in not meeting users’ expectations than failing to provide a “magical” experience. A post-mortem management setup process may be one step away from sensitive HCI, as pre-planning for a hypothetical or eventual death is quite different from handling logistics in the aftermath of a death. Yet the considerations for design in advance planning for social media should be the same as those in the area of sensitive HCI, as it involves making decisions for people who will use the technology in the midst of grief. There are also legal implications to consider when rethinking profile delegation after a death. Any post-mortem data stewardship system is likely required by law or platform policy to focus on the account holder, as the account holder is the legal owner of their data. Yet the active engagement and sense of presence in a person’s social media profile complicates metaphors of ownership [5]. The combination of high stakes and limited controls, in combination with the misalignments we describe in this study, indicate that post-mortem systems should reconsider (or at least be skeptical of) using typical setup and onboarding practices. Likewise, our work highlights a difficult tension when attempting to be considerate of sensitive issues: there is trade-off between simplicity and comprehension in post-mortem interaction design.

Design decisions around Legacy Contact seem to have centered two separate humans in two separate use cases: the account holder before death, and their legacy contact after death. That might work *if* the account holder is aware of their specific wishes and communicates them to a steward. In our data, this is rarely the case. Yet further focusing on the preferences of the steward is likely to not be sufficient. The lesson to be learned for post-mortem data management systems is to have *both* parties engage with the details and become knowledgeable about the platform-related priorities of the deceased. Alignment of understanding can be verified through detailed conversations. Our job as designers and technologists is to set up both parties to know what details they need to discuss.

The findings in this study, when viewed through the lens of Slow HCI, highlight a post-mortem design space with tensions and trade-offs to which designers must attend. While introducing friction to a system may reduce adoption, it can result in a more accurate understanding of a system.

We would argue that designers must strike the right balance based on the social consequences of the actions being taken and how long they will endure.

6.2.3 Post-mortem Paradox of Control. In misalignments between our participants and the system, we find a paradox of control and impact: the people who will be most affected by the system's configurations will also be the ones with no control over that system. Consider the circumstances that could emerge from the paradox of post-mortem data control: all of our participants expressed at least one expectation that was misaligned with either their counterpart or the actual system functionality. Misaligned expectations are poised to be violated in the event of the account holder's death, resulting in active legacy contacts feeling that the system does not allow them to be adequate stewards of that person's digital memorial. Furthermore, the LC will only discover the misalignment of their expectations in the wake of the AH's death. Specific needs that arise post-mortem (like informing the community of the death) may not be achievable in the way the LC thought. The direct consequences of a community not being informed are severe: people might miss the funeral, or not even be informed that the person has died. Experiencing a lack of information alongside grief will create an extremely negative experience and even affect users' overall well-being. Ensuring communications that could resolve the the paradox of control will be a key difficulty in post-mortem data management.

To address the paradox of control over post-mortem data, designers of post-mortem data management systems should consider how to expose people to examples of the system's function during the setup process. In the absence of extensive conversations between the AH and LC, or additional research, the way Legacy Contact functionality was explained during setup may be partially at fault for misunderstandings: the information focuses on what LCs *can* do as an LC, rather than on what they *cannot*. At the time of this writing, lists of LC capabilities are the only available information on Facebook's Help Center. Creating a system that specifies what the post-mortem steward's controls are and prompting conversation about those granular decisions is in line with mental health professionals' practices for death-related conversations as described in Section 2.1.

Overall, our findings indicate that setup processes for post-mortem social media account stewardship need to be different than typical onboarding that can be finished quickly. We recommend a slow, iterative, interactive, and thoughtful process that engages all relevant parties with specific options that will be available to the steward in the event of the account holder's death. One option, for example, might include a test profile that would allow both the account holder and their chosen steward to test and comment on various post-mortem management capabilities together. We recommend that post-mortem profile stewardship systems be designed with setup processes that consider the constellations of people who come together and rely on one another in both advance planning and in technological tasks post-mortem.

We have outlined some possible solutions rooted in HCI research that may encourage contemplation, reflection, and mutual recognition of details in the future systems that are so needed in our digital world. Though platform solutions to post-mortem data management may widely vary, we are confident that people taking time for contemplation will always lead to better choices.

6.3 Limitations and Future Work

There are several limitations to this work. Our participants were based in the US, which limits our ability to speak to other cultural contexts where end-of-life practices may be different. Additionally, our participants had selected or been selected as an LC prior to participating in our study. As such, we cannot speak to why people might find but elect not to use Legacy Contact or other digital end-of-life planning tools.

There are two other limitations that are the result of methodological choices we made, but which could present interesting avenues for future work. First, our study cannot speak to what people's post-mortem preferences would be after having a conversation with their loved one. While we intentionally interviewed participants separately in order to mimic the interaction design of the system, we imagine it could be beneficial to extend the work we present here with a study where participants were brought together afterward to discuss preferences and misalignments in order to identify how these discussions shape preferences on both sides.

Second, while we studied a post-mortem system, our data only focuses on pre-mortem activities. As such, we can only speculate on how pre-mortem choices will result in a particular person's post-mortem experience. While methodologically involved, we believe that research linking pre-mortem choices to post-mortem outcomes (e.g., by following up with participants over time) would be extremely productive.

7 CONCLUSION

As the most widely-used social media platform in the world, Facebook has become a key way that over 2 billion people connect with one another, in life and after death. Legacy Contact is an important and illustrative first step in enabling people who use social media to care for the bereaved, especially when something like a mundane photo album becomes a site of sacred remembrance. The people we talked with were able to choose (or be chosen by) a close, trusted person to care for their post-mortem profile, and all of them felt confident in their communications with that person. However, most participants had mutually formed incorrect expectations about what management capabilities the legacy contact would actually have, and thus were set up for failure if the account holder does die. Misaligned expectations indicate a broken setup process. In order for people who set up post-mortem data management systems to form and communicate expectations that will successfully enable their chosen person to care for their profile and their loved ones, the setup process may need to confront American cultural reluctance to discuss death, and emphasize the ways that a post-mortem steward's access may be different from normal account access. We suggest that the design of post-mortem management setup processes for social media accounts should implement slow HCI's principles of presence by requiring both account holder and steward to take iterative actions in the process together. In setting up post-mortem managers with accurate expectations, people who do steward a loved one's account will feel more capable to achieve their most important goal: honoring the deceased's wishes by loving who they loved.

ACKNOWLEDGMENTS

The authors would like to thank our participants. We also thank Vanessa Callison-Burch and the Memorialization team at Facebook, Inc.; the Identity Lab, HCC, and ATLAS communities at CU Boulder; Dr. Estelle Smith; Alison Klem Creagar, LMSW; Margaret Knapp, HBIC; and Kyle Gach.

REFERENCES

- [1] Anna N. Baglione, Maxine M. Girard, Meagan Price, James Clawson, and Patrick C. Shih. 2018. Modern Bereavement. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems - CHI '18*. ACM Press, New York, New York, USA, 1–12. <https://doi.org/10.1145/3173574.3173990>
- [2] BBC News. 2018. Facebook ruling: German court grants parents rights to dead daughter's account. <https://www.bbc.com/news/world-europe-44804599>
- [3] Jed R. Brubaker and Vanessa Callison-Burch. 2016. Legacy Contact: Designing and Implementing Post-mortem Stewardship at Facebook. In *CHI 2016*. San Jose, CA.
- [4] Jed R. Brubaker, Lynn S. Dombrowski, Anita M. Gilbert, Nafiri Kusumakaulika, and Gillian R. Hayes. 2014. Stewarding a legacy: responsibilities and relationships in the management of post-mortem data. *Proceedings of the 32nd annual ACM conference on Human factors in computing systems - CHI '14 (2014)*, 4157–4166. <https://doi.org/10.1145/2556288.2557059>

- [5] Jed R. Brubaker and Casey Fiesler. 2016. Understanding Human-Data Relationships: Data as Personhood. *Presented at the Workshop on Human Centered Data Science at CSCW 2016* (2016). https://cscw2016hcds.files.wordpress.com/2015/10/brubaker_hcds2016.pdf
- [6] Jed R. Brubaker and Gillian 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*. 123–132. <https://doi.org/10.1145/1958824.1958843>
- [7] Jed R. Brubaker, Gillian R Hayes, and Paul Dourish. 2013. Beyond the Grave: Facebook as a Site for the Expansion of Death and Mourning. *The Information Society* 29, 3 (2013), 152–163. <https://doi.org/10.1080/01972243.2013.777300>
- [8] Brian Carroll and Katie Landry. 2010. Logging On and Letting Out: Using Online Social Networks to Grieve and to Mourn. *Bulletin of Science, Technology & Society* 30 (2010), 341–349. <https://doi.org/10.1177/0270467610380006>
- [9] Marina Cascaes Cardoso. 2017. The Onboarding Effect. In *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems - CHI EA '17*. ACM Press, New York, New York, USA, 263–267. <https://doi.org/10.1145/3027063.3027128>
- [10] Kathy Charmaz. 2006. *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*. SAGE Publications, Inc., London.
- [11] Linda Emanuel. [n. d.]. How living wills can help doctors and patients talk about dying. *British Medical Journal* 320 ([n. d.]), 1618–1619. <https://www.bmj.com/content/bmj/320/7250/1618.full.pdf>
- [12] Facebook. 2019. What is a legacy contact and what can they do with my Facebook account? <https://www.facebook.com/help/1568013990080948>
- [13] Fidelity Investments. 2020. Tips for Estate Planning Conversations.
- [14] Casey Fiesler and Jed R. Brubaker. 2016. Understanding Human-Data Relationships: Data as Property. *Presented at the Workshop on Human Centered Data Science at CSCW 2016* (2016). https://cscw2016hcds.files.wordpress.com/2015/10/fiesler_hcds2016.pdf
- [15] Katie Z. Gach and Jed R. Brubaker. 2020. Experiences of Trust in Postmortem Profile Management. *ACM Transactions on Social Computing* 3, 1 (2 2020), 1–26. <https://doi.org/10.1145/3365525>
- [16] Katie Z Gach, Casey Fiesler, and Jed R. Brubaker. 2017. "Control your emotions , Potter:" An Analysis of Grief Policing on Facebook in Response to Celebrity Death. *ACM Trans. Web* 1, 13 (2017). <https://doi.org/10.1145/3134682>
- [17] Google Inc. 2016. About Inactive Account Manager. <https://support.google.com/accounts/answer/3036546?hl=en>
- [18] Rebecca Gulotta, Aisling Kelliher, and Jodi Forlizzi. 2017. Digital systems and the experience of legacy. In *DIS 2017 - Proceedings of the 2017 ACM Conference on Designing Interactive Systems*. <https://doi.org/10.1145/3064663.3064731>
- [19] Lars Hallnäs and Johan Redström. 2001. Slow technology - Designing for reflection. *Personal and Ubiquitous Computing* (2001). <https://doi.org/10.1007/PL00000019>
- [20] Daniel Herron, Nazanin Andalibi, Oliver Haimson, Wendy Moncur, and Elise Van Den Hoven. 2016. HCI and sensitive life experiences. In *ACM International Conference Proceeding Series*. <https://doi.org/10.1145/2971485.2987673>
- [21] Tim Hewson. 2016. Are there even fewer Americans without Wills? <https://www.uslegalwills.com/blog/americans-without-wills/>
- [22] Elaine Kasket. 2012. Continuing bonds in the age of social networking: Facebook as a modern-day medium. *Bereavement Care* (2012). <https://doi.org/10.1080/02682621.2012.710493>
- [23] Dennis Klass, Phyllis R Silverman, and Steven L Nickman. 1996. *Continuing bonds: New understandings of grief*.
- [24] Steve Krug. 2006. *Don't Make Me Think: A Common Sense Approach to Web Usability*. <https://doi.org/10.1098/rspb.2009.1614>
- [25] Elisabeth Kübler-Ross. 1969. *On death and dying*.
- [26] Kyleigh Leddy. 2019. Years Ago, My Sister Vanished. I See Her Whenever I Want. *The New York Times* (5 2019).
- [27] Michael Massimi and Ronald M. Baecker. 2010. A Death in the Family: Opportunities for Designing Technologies for the Bereaved. *Proceedings of the 28th international conference on Human factors in computing systems* (2010), 1821–1830. <https://doi.org/10.1145/1753326.1753600>
- [28] Rachel E. Menzies and Ross G. Menzies. 2020. Death anxiety in the time of COVID-19: Theoretical explanations and clinical implications. *Cognitive Behaviour Therapist* (2020). <https://doi.org/10.1017/S1754470X20000215>
- [29] Wendy Moncur, Jan Bikker, Elaine Kasket, and John Troyer. 2012. From death to final disposition. In *Proceedings of the 2012 ACM annual conference on Human Factors in Computing Systems - CHI '12*. ACM Press, New York, New York, USA, 531. <https://doi.org/10.1145/2207676.2207750>
- [30] Joji Mori, Martin Gibbs, Michael Arnold, Bjorn Nansen, and Tamara Kohn. 2012. Design considerations for after death. In *Proceedings of the 24th Australian Computer-Human Interaction Conference on - OzCHI '12*. 395–404. <https://doi.org/10.1145/2414536.2414599>
- [31] Guillaume Nadon, Marcus Feilberg, Mathias Johansen, and Irina Shklovski. 2018. In the User We Trust. In *Proceedings of the 9th International Conference on Social Media and Society - SMSociety '18*. ACM Press, New York, New York, USA, 138–149. <https://doi.org/10.1145/3217804.3217906>

- [32] NIH.gov. 2018. Steps for Getting Your Affairs in Order. <https://www.nia.nih.gov/health/getting-your-affairs-order#steps>
- [33] Jonathan A. Obar and Anne Oeldorf-Hirsch. 2017. Clickwrap Impact: Quick-Join Options and Ignoring Privacy and Terms of Service Policies of Social Networking Services. *Proceedings of the 8th International Conference on Social Media & Society - #SMSociety17* (2017). <https://doi.org/10.1145/3097286.3097336>
- [34] William Odom, Richard Banks, Abigail Durrant, David Kirk, and James Pierce. 2012. Slow Technology: Critical Reflection and Future Directions. In *Proceedings of the Conference on Designing Interactive Systems*. <https://doi.org/10.1145/2317956.2318088>
- [35] Stacie Petter. 2008. Managing user expectations on software projects: Lessons from the trenches. *International Journal of Project Management* (2008). <https://doi.org/10.1016/j.ijproman.2008.05.014>
- [36] Jeff Schimel, Joseph Hayes, and Michael Sharp. 2019. A Consideration of Three Critical Hypotheses. In *Handbook of Terror Management Theory*. Elsevier, 1–30. <https://doi.org/10.1016/B978-0-12-811844-3.00001-9>
- [37] Karen J. Sneddon. 2011. Speaking for the Dead: Voice in Last Wills and Testaments. *St. John's Law Review* 85 (2011), 683–754.
- [38] Margaret Stroebe and Henk Schut. 1999. The dual process model of coping with bereavement: Rationale and description. <https://doi.org/10.1080/074811899201046>
- [39] Daniel Ullrich and Sarah Diefenbach. 2010. From magical experience to effortlessness: An exploration of the components of intuitive interaction. In *NordiCHI 2010: Extending Boundaries - Proceedings of the 6th Nordic Conference on Human-Computer Interaction*. <https://doi.org/10.1145/1868914.1869033>
- [40] David R. Unruh. 1983. Death and Personal History: Strategies of Identity Preservation. *Social Problems* (1983). <https://doi.org/10.2307/800358>
- [41] Anna J.M. Wagner. 2018. Do not Click "Like" When Somebody has Died: The Role of Norms for Mourning Practices in Social Media. *Social Media and Society* (2018). <https://doi.org/10.1177/2056305117744392>
- [42] Tony Walter, Rachid Hourizi, Wendy Moncur, and Stacey Pitsillides. 2012. Does the internet change how we die and mourn? Overview and analysis. *Omega: The Journal of Death and Dying* 64, 4 (2012), 275–302. <https://doi.org/10.2190/OM.64.4.a>

Received June 2020; revised October 2020; accepted December 2020