Posting to beyond the grave: Designing for Death

Introduction

"Happy Birthday FRIEND..miss you like whoa! Xoxo"

- Facebook user

The above message is something that you have either written or seen numerous times on your social networking site news feed or wall. Given the functionality that facebook offers, it is easy to converse with friends online. However in the above example, the user at the receiving end of the message happens to be deceased. The fact that relationships, feelings and emotions with and towards someone does not diminish or end just because he is physically not present, is what drives communication with the deceased (Degroot 2012).

The loss of someone close to you is always a painful experience and one which might even be considered as being the most difficult to deal with. Getting together to console one another, share sorrows, mourn, grief and express emotions is not uncommon in case of such an event. As time progresses, people have to learn to accept the loss and learn to either live without the deceased by finding a place for the lost one in their live or just letting go (Getty et al 2011). When a person passes away, the bereaved family members go through a plethora of stressful activities. They are involved in burying the body, holding memorial services, informing the distant families and friends, handle the possessions of the deceased, all while they are dealing with grief and mourning. Society is continuously evolving the way in which they are dealing with these processes. Technology is now starting to play greater role in such situations. Besides grieving and mourning, another major activity that the bereaved family members take part in is the distribution and inheritance of the digital assets of the deceased.

Before proceeding further, let's take a quick look at two past incidents:

a) On the 20th of July, 2012, 30 minutes after her last post to twitter stating her excitement about the new batman movie, Jessica Ghawi was killed during the Aurora shooting. In honor of her memory, people started tweeting out using the #RIPJessica hashtag to memorialize her death online. People from all over were posting on her wall, tweeting using the the hashtag, writing blog posts remembering her. The digital grieving process had started.

b) In April, 2005, finally complying with a court order, Yahoo agreed to release and handover the e-mails of Justin Ellsworth, a deceased marine, to his family. When initially Ellsworth's father tried to recover Justin's e-mail account, he was barred due to Yahoo's policy regarding privacy and transferability of digital assets of the deceased.

Are these scenarios that your next social networking site is designing for? Are you as the owner of a technology designing for death?

The world's first cyber graveyard was launched in 1995 - World Wide Cemetery. This site could host short profiles of the deceased along with some multimedia attachments. 2010 saw the world's first government run cyber graveyard - Memorial.gov.uk. This was followed by Ootang.com, China's virtual graveyard that allowed users to create shrines and temples for the deceased. Today, there are approximately one billion users on facebook, and more than 10,000 of them die everyday. 30 million Facebook users died in the first eight years of Facebook. 428 of them die every hour. Where do these numbers put us? The world's largest cyber graveyard might just be the website we almost visit everyday.

This paper will look at the problem of digital legacy and shed light on the role of social networking sites in preserving and handling these digital personalities after the death of the user. We will discuss how technology is being modified in terms of their intended use and

functionality to help tackle the space of connectedness with an individual after they are no more. It is important to understand and discuss how technology, for example, social networking sites may have modified themselves based on the user's use of them during mourning or stages of grief after someone passes away. With the growth of social networking sites, not only has there been an increase in the number online social profiles, but there has also been a huge growth in the number of profiles which represent the deceased. Users have used the existence of these profiles of the deceased, to take part in what might be called "post mortem social networking" (Brubaker et al 2013). Not only, are social networking sites being used by those who mourn the loss of their loved ones, but these sites are also working towards trying to update their design to address the issue of post-mortem data access and are building ways to enable forwarding account maintenance and activity to an inheritor (Brubaker et al 2014). The increase in profile pages of deceased users and their use has shed light on understanding the nature of death in this sociotechnical context (Brubaker et al 2010). There still seems to exist this socio-technical gap when looking at these technologies through their usage for post mortem social networking. We will see later how these social networking sites are unable to fully support social activity in all its flexibility, nuance, and context-specificity (Ackerman 2001).

A new trend is occurring on social networking platforms: mourning the death of loved ones due to the persistence of digital identities. And, more than ever, there is higher degree of discussion regarding the inheritance of digital assets of the deceased. Given the prevalence of this trend and existence of post-mortem data, my efforts during the paper will be to argue that technologies such as social networking sites must consider death and mourning as factors in their design practices. In doing so I will look at how current user practices are insufficient in handling post mortem social networking.

Moving from the roots of grieving and the preliminary research into the process of mourning and the push to incorporate the same into design, we will look at some traditional methods of mourning and compare them with their digital equivalents today. Building upon the concepts of affordances as explained by Norman, Sellen and Harper, I will look at how these social networking sites have given risen to opportunities for users to use them to take their post mortem activities online. I will use the framework and discussions by Fischer to highlight how the open endedness of these technologies such as social networking sites have resulted in uses that the designers did not perceive. I will shed light on the importance of user agency in understanding the shifting consequences of technology, and why based on the current usage, designing for death should be a factor to consider. The focus of this paper will be on two specific aspects of technology when designing for death:

- Remembering Technology

   We see that when we look at the rituals of grief and mourning in the physical world, and compare it to the practices taking place online, these offline traditions and rituals have started to bleed into the digital realm in terms of online memorialization. Social networking sites such as Facebook are increasingly seeing posts where users write messages to, share memories about, and otherwise memorialize the dead. Users are using technology as a way to remember the deceased.

- Inheriting Technology

   Mourning is not the only associated activity with post-mortem profiles. Ownership of these profiles has become a huge consideration for social networking sites. Unlike the above discussed memorialization posts, these post-mortem profiles are not created by friends or family of the individual but rather are an ongoing part of the digital assets left behind by a deceased individual.

Drawing from different readings and research, I show how traditional bereavement practices are still relevant in the digital space and suggest that designers should work towards factoring in these practices into the technologies. Post the discussion on current issues of social networking sites and their current handling of deceased profiles and post mortem data, I will highlight some implications on design and present recommendations towards a better design for handling the scenarios involving the death of the user of the system/technology.

The Grieving Process

There has been considerable work done on understanding and highlighting the various phases that one goes through when grieving. Drawing on the ideas proposed by Freud in his article "*Mourning and melancholia*", various researchers (Weiss 1993; Parkes 1986; Bowlby 1980) and many more have developed sophisticated analyses and theories regarding the grieving process. Most of these researchers have proposed and discussed broadly three main phases of grief and mourning. These include the shock phase, where people are unable to fully understand and realise that a death has occurred. This is followed by the acknowledgment phase, where mourners and the bereaved begin to accept the loss. And the final phase is reconstruction, where they begin to realign and build their lives around a world where the loved one is no more (Degroot 2012). The overarching model over all the above stated phases is the dominant model of grief which sees the eventual and final goal of grief and mourning to be one which involves letting go of the deceased one and moving on with their lives without the deceased (Walter 1996).

The dominant models of grief were questioned and challenged by the authors, Klass, Silverman, and Nickman. Their book suggests that perhaps these linear models, which usually always end

in a detachment from the deceased, were not matching the current reality of how many people grieve. They proposed a new model, that was rooted in the observation of healthy grief that did not resolve by letting go of the deceased, but rather in crafting new relationships with them - The continuing bonds theory.

Continuing Bond Theory

Under this model, the grieving process isn't about trying to get through a linear process that ends with 'acceptance' that the deceased is no more. Rather, when a loved one dies the mourner find ways to adjust and redefine their relationship with that person, allowing for a continued bond with that person. It does not mean that you are grieving in an abnormal way and that the relationship is unhealthy. Instead, the continuing bonds theory suggests that "*this is not only normal and healthy, but that an important part of grief is continuing ties to loved ones in this way. Rather than assuming detachment as a normal grief response, continuing bonds considers natural human attachment even in death.*" (Klass et al 1996).

Traditional mourning

Acts of remembering, are spread out amongst the rituals of cultures around the world. The purpose for the gathering for the deceased, in whatever form it may take, is not only for the benefit of the corpse, but also for the benefit of the family. "*Many cultures believe the deceased may be confused and requires company until the body can be interred or otherwise disposed of*" (Klima 2002; Dernbach 2005). And it's at this time that the community to which the deceased was a member of, to gather and comfort each other.

Traditional and ongoing offline practices include acts of notifying the distant members through various forms of announcements. People tend to organize post funeral gatherings such as a

wake, to gather and share memories of the deceased. Obituaries are amongst the most highly read section of the newspaper and has been a de facto method for memorializing the deceased. This is generally always followed by members of the family, friends, and acquaintances showing up to share their condolences with the family, and act as pillars of support for each other in times of mourning. During this process of mourning, it is also important for the family members to understand the will of the deceased. Details regarding the inheritance of the possessions of the deceased are decided.

A lot of the traditional methods are centred around ensuring that people are able to memorialize the dead and be there for those affected. Support systems are an important part of the grieving process. Group commemoration is an integral part of bereavement (Massimi et al 2010). As Massimi and Baecker note in their research, for small groups it was not uncommon for the people to get together to and highlight the mourner's shared memory of the deceased. Memory sharing practices like wakes, vigils, etc are ways in which postmortem identities are created.

Mourning and Grieving Online

I want to highlight that in this section, I will discuss how mourning and grieving has shifted to the digital realm. I will be discussing the affordances that technology has allowed for the grieving process. And with this as our foundation, I will highlight these concepts of user adaptation of social networking sites for bereavement within a framework supported by Fischer. There has been a great amount of work done recently to examine the use of user profiles in social networking sites for grieving and mourning. There is huge issues regarding distance during the loss of a loved on. Bereaved family members, though willing to provide emotional, informational and functional support are unable to partake in such activities due to the limitations of distance

(Massimi et al 2010). When these groups start to become distant, conversations and verbal sharing of memories become the main methods of memorializing the deceased.

When we think of affordance we think of *"the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used"* (Norman 2002, p. 9). Social networking sites due to certain characteristics such as easy availability of data, visibility of social media, the openness and ability to connect distant groups ensure that they can support the affordances that traditional and offline methods of mourning don't. And, in this case we see that users are shifting to social media to display their grief, since individuals stick to current practices not because of an unwillingness to change (Sellen and Harper 2001) but the fact that technology does not offer an alternative that could take up enough tasks and offers too less. Looking at Hartson proposal of the four types of affordance, it is important to note the applicability of the concept of cognitive affordances. This concept of cognitive affordance can be defined as "a design feature that helps, aids, supports, facilitates, or enables thinking and/or knowing about something" (Hartson 2003, p. 319). The mourning process involves sharing the news of the death and bringing mourners together. This was earlier enabled by public announcements through newspapers, events, etc (Marwick 2012). But we see that social networking sites provide are able to afford such activities easily. Facebook gives users an opportunity to members to enact their grieving process more easily and with support from others (Degroot 2012). Social networking sites allow people to express their grief from any location and any time of the day as they are no longer bound by the limits of time or distance of the physical world. As a research noted, "*sometimes [grief] really hits you in the face and you need something*" (Cox 2007, para. 6), and it is important to have this constant connectivity to an online place where one can mourn and share his emotions. Having a digital veil, makes grieving online less inhibited. (Suler 2024). Because anyone can join Facebook and

access content on public pages, anyone can view the contents of online memorial pages and groups, this allows for a varied online audience. Individuals post messages to the profile of deceased to maintain a sense of bonding and coming to terms with the parting of the deceased. Social networking sites have helped create these small communities organized around the profile of the deceased. These communities overcome separation amongst those who are grieving, and helps bring them closer.

Social networking sites establish opportunities for individuals to engage. These practices clearly influence people's interpretation of the platform. Yet at the same time it's the individual who engages via the platform, modifying the system to his own needs and interests. It's the actions of individuals that create connections and publish content on such sites. Fischer's User Heuristic model would likely build upon the aforementioned concept of affordances of social networking sites and suggest that despite the intended usage of social networking sites, users have adapted the sites for their purposes of maintaining post mortem relationships. Through the lens of the user heuristic model, we see that the creators of these social networking sites such as Facebook, did not actively design for such a use case. These social media platforms were never a substitute of the traditional process of bereavement, but as Fischer notes, it is how the users use the social networking sites that define another potential dimension to the possibilities of these sites. Facebook was initially and still is intended as a social media platform to connect individuals with friends and family and share and chat with one another, but online memorials on facebook are now a growing phenomenon. Users are using these social networking sites to connect with other grieving members, talk to the deceased, and share fond memories of the deceased. Facebook gives the grievances of the people a direction. Users describe using facebook to learn more about the deceased through their social networks. In the case of death of celebrities we see how users post on twitter in a way to send their condolences to those

grieving. Fischer brings forward a lot of insights on how the perception of the older technologies (telephone, automobile) changed from the time they were introduced to when they became widely accepted, and the same can be compared to what we see with social networking sites. The high amount of users engaging with Facebook for the purposes of mourning through memorial walls, groups and pages, has already created a feedback loop into the design of Facebook. The image below is FAQ page of facebook advising users how to report deceased users.
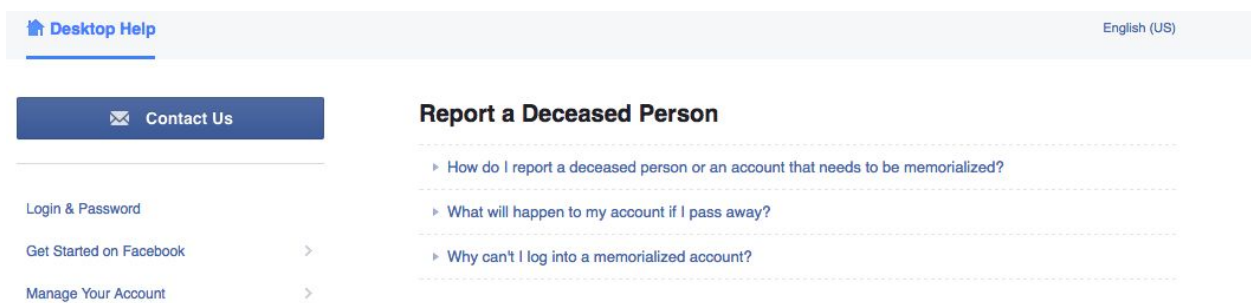
Something that is still highly relevant today from the book is when Fischer says – *"there is something yet more profound in seeing people as active participants, assimilating a major material transformation into their lives. Those lives were not left unaltered, but the alterations were largely the conscious product of people employing things, not of things controlling people"*. People are constantly challenging the design of these websites and using their affordances to enable actions that mimic certain traditional processes of memorialization of the dead.

Social Networking Sites as an extension to the ongoing practices of death and mourning: A look at the issues

As stated earlier, we will look at two particular aspects of these social networking sites in terms of post mortem social networking, and highlight certain issues in the current way users have adapted these technologies:

Inheriting Technology

Digital data planning is a rare activity. The amount of online users is increasing and so is the amount of personalised online digital possessions. There will be multiple instances where data access and usage will be blocked due to the fact the owner is no longer living. Digital artifacts are now carrying increasing amounts of sentimental values, and users are taking in account handling these digital legacies and assets in case of their demise. Ownership of these profiles has become a huge consideration for social networking sites. Research shows that "stewardship" can be considered as an alternative to direct inheritance of a social profile (Brubaker 2014). We have seen that recently, Google has tried to tackle this issue of data access of post-mortem profiles by introducing the "Inactive Account Manager" (Micklitz et al 2013). As part of this feature, Google makes it easy for users to tell it what they want done with their digital assets when they die or can no longer use their account. This again is an example of how the societal norms of transferring your assets to a close one has been translated from the offline space to the online space, and tells us how the introduction of these associated features is being driven by how people deal with death in society. In terms of coping with the death of a loved one, users who have inherited the digital assets of the deceased partake in multiple activities such as searching for biographical information of the deceased, reminiscing emails, going through digital photos and completing administrative tasks. Post mortem data needs to be managed. For example, currently Facebook makes all decision related to post mortem data management for the community (Tsaasan et al 2015). We need to be able to understand digital legacies in terms of notions of inheritance.

Issues

Unlike the facebook memorial page, these post-mortem profiles are not created by friends or family of the individual but rather are an ongoing part of the digital assets left behind by a deceased individual. In the absence of a data handler, it is highly likely that the data tends to disseminate through multiple online sources. There is a need for the ability to grant read access to trustees for digital data of the deceased. Some require the data to remain readable while others would like to have it deleted (Micklitz et al 2013). Also the lack of a marking system makes it hard for users to identify the distribution of the files after the owner has passed away (Massimi et al 2010). Simple password sharing for digital files is still a risky mechanism due to security risks associated with sharing a common password for all the digital assets of the deceased. Highlighting in advance the user preferences for new users of the digital assets is also an issue. How can we ensure that sensitive content is only accessible by those who we want. There are no ways to flag digital assets as private or sensitive.

Remembering Technology

Post mortem commenting is a major part of the grieving process today. Users do not hesitate to reach out to Facebook to express their sorrow for a loved one passing away by posting to their walls in a representation of trying to speak to them. Many comments and wall posts include shared memories, comments written to the deceased and continued bonds with the dead. Users use Facebook to share updates from their own lives with the deceased as a way of memorializing the deceased. Many posts on the wall of the deceases indicate an ongoing presence of the deceased in the live of the mourner. The users not only leave posts in an attempt to reach out the dead, but also to the living. A lot of the posts are aimed at providing support to the others that are grieving. Posts online mimic interactions which aim at maintaining connections with the other. The greatest appeal that facebook offers to the users is the ability to

grieve with others (Carroll 2010). Respondents in a survey conducted by Carroll and Landry, said that "Facebook gives me non-intrusive way to show that I care". Usage patterns confirm that users use social networking sites have tendency to shift their commenting frequency and tone when interacting with the deceased (Brubaker et al 2011).

A notable development in remembering technologies is Facebook's ability to convert the profile of a deceased user to a memorial state. This allows only "friends" with the deceased can post on their page. These memorial profiles do not allow acquaintances or non-friends to post, as a result users then set up separate memorial pages as public space for grieving and mourning. These are different from the above mentioned memorial state pages, such that, non - friends can also access and share their grief with others in this space. These public posts and memorial pages allow for a 'page creator', and the ability to 'like' these specific memorial pages.

Issues

This current user adaption of Facebook and other social networking sites for grieving has led to certain issues that designers need to account for. These public pages and posts become a potential space for unwelcome participants such as "trolls" along with allowing for context collapse (Marwick 2012). Trolls regularly engaged in activities on these memorial posts and pages which were aimed to upset and provoke. These unwanted users posts disturbing images and make comments that aim at evoking confusion, disgust, anger amongst other strong emotions (Marwick 2012). There were participants that posted comments expressing pleasure from the passing of the deceased. Example of a troll post:

 "I can't help but jack off when bitches die. What a fat slutbag"

                                                                                  - online post

Such memorial pages attract multiple audiences, each who have their own personal memory and view of the deceased. The social context of negative posts or comments regarding the

deceased often lead to a context collapse in these sorts of pages, where users are no longer

positively supporting one another, due sharing of troubling and disturbing reveal of information.

The page creator is given great responsibility once he creates a memorial page, even if he has

no connection to the deceased. He has the ability to regulate all activity on the memorial page

for the user. Public posts which are not limited to a memorial page are generally interspersed

amongst the other posts on the newsfeed of multiple users which creates a sort of shock when

part of your regular feed. Besides these issues, certain socio technical gaps still exist with the

implementation of such memorial pages. The 'like' button for a memorial page is of huge

controversy. Users are troubled by the naming of the button itself, as well as the fact that this

button is used as a quantitative metric to judge the significance of the deceased.

Implications for Design

Given the above issues, I suggest some design consideration for social networking sites to

incorporate when designing for death.

1. As we saw that the public nature of these memorials though encouraged trolling also

   provided a space for mourners to get together. As a result, we suggest a semi-public

   memorial section for the deceased individual. This would allow users to post messages

   directly to the deceased and these can only be viewed by the individual. This would be

   of unrestricted access, as in anyone would be able to post but only they will be able to

   see these posts. And, on the other hand the public space would be only be accessible to

   users within a 2 degree connectedness of the user. Users who are friends of friends of

   the deceased will be allowed to join the memorial page, but accessibility is limited to that

degree. This protects the page from trolls while still allowing non friend users to join the grieving and mourning.

2. A specific page which provides support information for the mourning family members that allow for them to easily navigate to in case they want information regarding post mortem support. This space will be shared by the bereaved only to share support information with each other.

3. Given the issues associated with 'like', another design consideration that I recommend would be to establish a 'share my condolences' button which is not of quantitative nature. The number of button presses will not be shown to individual users in the news feed, but the count will be maintained at the backend just as it would for a 'like' button to propagate the post. Individual users will see that they have shared their condolences by seeing a 'presses' button once they click on it, but will not see how many users have also done the same. This is in hope to tackle the ethical consideration of displaying the popularity of a memorial page.

4. Another consideration, would be to only allow for a user in the network of the deceased to create a memorial page for the deceased, instead of having the possibility of a random page creator as it is right now. This would help alleviate concerns of non truthful mourners handling such pages.

5. Higher strictness by social networking sites when moderating the comments of memorial pages. This would be an additional level of scrutiny on top of the current set standard for moderation. Moderation needs to be more vigilant at these pages.

6. Social networking sites could be designed to allow users to set up access to different parts of their profile to different users after they pass away. Profile owners can provide

who they want to pass access to for their profiles. This could be either a holistic passing of the entire profile or assigning different users to different sections.

Thanatosensitivity in Design

This area focusses on what happens to human-computer interaction when the user who the interaction has been designed for is no longer alive. Thanatosensitivity describes a process into research and design that tries to incorporate facts of death, dying and mortality into the traditional process of user-centered design (Massimi et al 2009). It aims towards understanding and incorporating issues surrounding death in the design of technologies. With the inclusion of a variety of technologies into our lives, it is important to understand that when a person moves on after death, they are now leaving behind a huge amounts of information stored on the internet. Though capable in a limited way, these technologies are yet not designed to effectively engage with the death of their user. In the 2005 news article stated above, we saw that Yahoo was not prepared to deal with issues regarding the death of the user. The family was denied access to important digital information which was necessary for handling his post mortem affairs. Issues such as authorship are being affected by death, and need to be considered when designing systems. Password system that require a living body such as biometrics involving thumbprints and retinal scans are not designed to handle the eventuality of the users demise, and as more data goes online behind such password protected system, how will technology deal with it. Thanatosensitivity helps us work with interesting research questions such as (Massimi et al 2009):

- Can we design technology to permit a user to undertake actions past their natural death?

- How do we represent users differently in states of living or dying?

- Is it possible to design for user groups who will be at different stages of life?

- What digital assets can be considered inheritable?

- What data would/should be considered private or public in the event of death of the user of the system?

- Who needs to take responsibility for the privacy of deceased user's account and data?

These questions pose interesting implications which need to be considered when technologies design for users.

Conclusion

As we see from the above paper, given the prevalence of this trend of post mortem social networking and existence of post-mortem data, it is important that social networking sites must consider death and mourning as factors in their design practices.

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