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Design Considerations for After Death: Comparing the Affordances of Three Online Platforms

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ABSTRACT

As more of our personal interactions are enacted online, designers of websites and social networks must respond through appropriate design. Interest within the HCI community surrounding death exists with a growing number of projects focused on innovative technologies and design considerations for online spaces particularly for the bereaved. Limited however, are empirical studies across different website architectures over a longer period of time rather than directly after death. In this study we look at the affordances of three online platforms and analyse the comments made on them in response to the murder of American teenager Anna Svidersky in 2006. The platforms include Anna's MySpace page, a memorial video on YouTube and an online condolence book. We show how the affordances of online environments affect participation by not only friends and family, but also strangers. Based on our study we outline nine design considerations that address issues relating to death and memorialisation online.

Author Keywords

Death, grieving, online mourning, social networking sites, design affordances, Anna Svidersky, MySpace, YouTube, condolence book.

ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI); Miscellaneous.

INTRODUCTION

This paper builds upon recent HCI research exploring the relationship between digital technologies and human mortality. We present design considerations for those interested in designing online technologies that have an orientation towards death. To do this, we based our analysis on comments from three distinct websites using one case study. We used the outpouring of comments made after American teenager Anna Svidersky's murder in 2006. The comments consist of posts to Anna's MySpace profile, comments on a YouTube memorial video, and messages posted to an online condolence

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book. Across these websites contributions were made ranging from those close to Anna (friends and family) and also interested strangers from around the world.

Through MySpace, those close to Anna had a place online which was used to sustain a connection with her five years after the murder. The connections Anna made through MySpace provided a participative boundary, enabling a select group of individuals who knew Anna in life (as opposed to strangers) to contribute messages to her MySpace page after her death. The YouTube memorial video and online condolence book attracted wider audiences of those who did not know Anna, giving them a place to reflect on death in general, emote, and to offer their condolences to those in mourning. This wider participation as we will demonstrate may also lend itself to harmful practices surrounding trolling and other problematic interactions between strangers and those acutely affected by loss. In this paper we draw on a now historical example (particularly given Facebook has taken over since 2006 as the dominant online social network in western culture today) in order to reflect on issues relating to the ways online social networking sites change over time with respect to page layouts and formatting. We provide suggestions for new tools that repurpose multimedia content (particularly social networking content) after the loss of a loved one. Finally, we show how traditional practices of condoling the bereaved still have relevance online through usage of online condolence books, and suggest that designers may be able to better factor this practice into their platforms.

Our research departs from previous research that uses multiple case studies on one type of website or social network. Using a single case that resulted in outpourings of comments on three distinct websites gives us a deeper understanding of how specific design decisions on those sites, influence responses to death online for both those grieving and those interested but not directly affected.

RELATED WORK

Literature attending to practices and forms of online memorialisation are becoming commonplace across the social sciences, particularly looking at memorial websites and the comments made by the bereaved (e.g. de Vries & Rutherford [20]). More recently, attention has turned to practices on social networking websites, focusing on the behaviours online of teenagers in response to death. Carroll & Landry [7] and Williams & Merten [22] have

studied the use of online social networks amongst young Internet users who lost loved ones by examining comments on sites such as Facebook and MySpace. They identified that these platforms supported users maintaining a connection to the deceased, concluding that online social networks provide young people with inclusive and comfortable spaces to express and share their grief not offered by more traditional forms. Further, they observe that such platforms also support users communicating intimate messages in sometimes very publicly accessible areas. In our study we have found similar practices, but we have extended this work by making comparisons across a more diverse range of sites.

There is growing interest in HCI and CSCW regarding death and memorialisation with particular emphasis on how technologies may be designed with end of life as a focus for design (e.g. a workshop at CHI 2012 had human mortality and design as a core theme [15]). Those interested have thus far identified issues with passing on digital content to the next generation [17] and also the design of new interactive technologies [11] not limited to websites. Massimi and Baecker [13,14] have included both bereaved individuals/families and bereavement experts in fieldwork, identifying current practices employed by the bereaved who inherit technology (mobile phones, VHS machine etc.) and digital content (hard drive file systems, emails etc.) of the deceased. Based on this research, opportunities for the design of technologies for the bereaved are presented.

For social networks, Getty et. al. [9] compared comments made before and after death on 11 social networking profiles. This was to make a case for the Continuing Bonds Theory where the bereaved construct a new relationship with the deceased rather than the traditionally accepted model of mourning which is to “let go” or detach one’s self from the deceased. Brubaker and Hayes [6] conducted a study of 1,369 MySpace users who had died over three years prior to the analysis of posts made to their profiles and described three themes including authorship and audience, temporal patterns and post-mortem social networking – all of which were also identified in our study. Through these studies there is a growing understanding of the people and the range of comments made online to mourn and commemorate. There is however, a dearth of considerations for designers of online technologies which have an orientation towards death and memorialisation. We build upon this existing literature by identifying the design affordances on websites and online social networks by exploring a single case that resulted in multiple website and social network use, rather than multiple cases using similar websites as per existing studies [6,7,9,22]. Through analysing data across different websites, we are in a position to understand the impact of website design on how its users express themselves online after a death, and provide a set of design considerations grounded on empirical evidence.

ANNA SVIDERSKY

The case chosen for the analysis is the murder of Anna Svidersky and the subsequent outpouring of online comments across the Internet on three websites. This

historical example highlights the varied forms of responses across the different online platforms over time.

At the time of her death Anna was a student in her final year at Fort Vancouver High School. She had worked at the Andersen Road McDonalds since October 2004 [1] and had graduated from ‘back-of-house’ work to serving at the front counter. Anna lived with her mother Esther, an older brother, and two younger sisters, Christina and Elizabeth, in Vancouver, Washington State [1]. Anna died six days before her 18th birthday.

Anna was described as an attractive, vibrant, outgoing and generous girl. Looking at her MySpace page, we can see that her user-id was an appropriation of the pejorative ‘Sceneslut’ and her identity had updated the day she died to “[lovely] IS LEGAL IN 6 DAY” (sic). In her ‘about me’ profile she noted: “make me smile. i’m a foreign girl from RUSSIA♥ and i’m definitely your type.” In her profile she



Figure 1. Anna's MySpace Profile Photo

indicates her location as: “I hate VANCOUVER, WASHINGTON”.

Anna’s MySpace page is a brash and breezy depiction of rebellion and conformity, presented with outward confidence and a heavy dose of irony. It is a depiction of self that displays particular tastes. It seeks to assert maturity and an ironic, self-knowing cool. She presents as an attractive, interesting and fun person, with a broad circle of friends. There is much of the overstated brazen confidence of youth in her profile, but also indicators of innocence and vulnerability, magnified of course by the knowledge of her murder.

THE MURDER

At around 8:00pm on Thursday the 20th of April 2006 David Sullivan entered Vancouver’s Anderson Street McDonalds where Anna worked and stabbed her while she was sitting in a booth in the restaurant on a break from her evening shift. The murderer and the victim were unknown to one another.

Mike Block, a friend and co-worker, is quoted as saying, “The guy walked in out of nowhere. He didn’t say anything” (quoted in [2]). At his trial, another witness reported that Sullivan was mumbling to himself [19].

Sullivan left the McDonalds almost immediately after the stabbing and was arrested shortly thereafter, a few blocks away reportedly covered in blood [2,10]. Sullivan later reported to police that “he thought Svidersky ‘was a cute whippersnapper’ and he wanted to be her friend” [10]. Anna was stabbed in the chest with a kitchen knife. The knife pierced her heart. Her last words according to a co-worker were, “Tell my family I love them. Tell Christina that everything will be alright” [1]. She died at Portland’s Legacy Emanuel Hospital less than an hour later [1].

Whilst this is a tragic story, many such tragedies occur each day in the United States and throughout the world. An individual's death, particularly as a consequence of murder, is of life-changing significance for those close to the deceased (families, friends, classmates and work colleagues), but for the most part, is relatively insignificant for the wider public of strangers who consume newspaper and television reports. What was interesting about the story was the overwhelming response of the public to Anna's death. In a term used commonly today, Anna's death 'went viral' as individuals from around the world participated in reflecting on Anna's story across a variety of online spaces.

RESEARCH DESIGN

Our study is a qualitative analysis of comments made across three websites. In this section we describe the three different data sets that were used in the study and discuss how the analysis was performed. Anna was an active MySpace user with 151 friends still visible on her list. By looking at the comments on her MySpace profile [24], it appears these friends comprise the range of social connections one might expect on one's online social networking profile. This includes relatives, offline and online friendships and sometimes more tenuous links such as online acquaintances. Anna's MySpace page remained active after her murder, primarily through her friends continually posting messages on her profile. Importantly, no casual observers could 'friend' Anna to post comments. These messages were downloaded as the first data set.

A video devoted to Anna was uploaded to YouTube [25] a few weeks after her murder. This was a moving tribute and has been viewed over 3 million times with around 3000 comments, with most interest within the year of the murder. The video contains music from her favourite band, images of Anna, news video footage and footage from the funeral (to read more about YouTube commemoration videos see [21]). YouTube is a popular online video platform supporting the uploading and browsing/viewing of video content. It is organised such that once a user watches a video, other related videos are shown. This lends itself to users stumbling across videos by accident. Users can participate by rating videos and making comments. This is unbounded, as anyone with Internet access is able to contribute. The comments made on Anna's video tribute constitute the second set of data for this study.

An online condolence book [26] was created for Anna after her murder. This was a place for people to post commemorative comments and send condolences. On the home page is an image of Anna and a web link directing users to sign the book of condolences. Importantly the condolence book has its own domain name, so must be accessed by either typing the domain name into a browser, using a search engine (e.g. typing in a search engine "Anna Svidersky" retrieves Anna's online condolence book) or accessed through links put on webpages or in emails. Users are thus likely more focused on retrieving information about Anna or hoping to contribute condolences or messages when they arrive.

This is in contrast to the YouTube video which was often stumbled upon by strangers. The condolence book does not allow any more messages, but the archive of messages can still be read. We used these messages as the third set of data.

At the end of May 2011, we downloaded the three data sets, which were made up of comments on Anna's MySpace profile ($n = 865$), the comments from the YouTube memorial video ($n = 2983$) and the comments posted to the online condolence book ($n = 15,829$). After the team scanned the data and started to look for common themes, open coding was employed using the ATLAS.ti software. Several blocks of samples from each site and from similar time frames were used in the analysis. We could only use 'similar' time frames due to YouTube and MySpace not storing specific dates for comments over a year old. We had instances where codes were specific to a website (e.g. trolling was only evident on the YouTube comments), and other instances where codes overlapped across all three websites (e.g. making reference to the passing of time). The codes were refined and iterated as the data analysis was performed until data saturation was reached, resulting in 32 separate codes. There were 566, 530 and 644 instances of the codes attributed to messages from MySpace, YouTube and condolence book respectively. By having codes compared across the three websites, we could build a picture of how users interacted with each of the websites to identify commonalities and differences.

The inductive step of moving from the raw data to codes allowed us to compare and contrast the types of comments across the three websites. However, another step in the analysis was required to contribute design insight. We used boyd's four structural affordances: persistence, replicability, scalability and searchability [5] as sensitizing concepts [4] to do this. A sensitizing concept is defined as a departure from definitive concepts "whereas definitive concepts provide prescriptions of what to see, sensitizing concepts merely suggest directions along which to look" [3] (quote from [4]). boyd's structural affordances emphasises social network site design. This emphasis helped us progress from our codes to themes relevant to website design (we filtered to only include codes that were relevant to design). In doing so, we were able to explore how the design of online platforms influences ways of expressing oneself in response to death, and in turn, allowed us to respond to issues by presenting design considerations.

FINDINGS

Our findings are presented using the four structural affordances: persistence, replicability, scalability and searchability [5]. Within each of the affordances, the relevant theme(s) is discussed and each of the nine design considerations numbered using the formatting (DC1), (DC2) etc. throughout the text.

Persistence

Commenting years after the death

Anna was murdered in 2006 and we downloaded data from the three websites in 2011 - five years later. Some comments made reference to this passing of time since.

miss you....cant believe its been 5 years (MySpace – April 2011)

...I first saw it a few years ago and I remember it every so often... (YouTube - January 2011)

I remember hearing of this, somehow, I think on myspace.. April 2006.. watching a video on youtube, STUNNED that this could happen... (Condolence Book - December, 2010).

Each website serves as a place for people to come back to and view and contribute to over time. Coincidentally, comments can no longer be submitted to Anna Svidersky's condolence book. The last submission was on May 26, 2011, and comments have been archived for people to view only. That two websites remain open while a third has stopped allowing people to post comments raises questions of longevity. The online condolence book was moderated by a relative, but questions remain as to how long those designated as moderators should and would want to moderate content submitted to condolence books online. It is often the case that those close to the deceased will set up sites to condole the living. It is however unrealistic to expect a loved one to moderate incoming comments indefinitely. Over time a bereaved person will change in how they respond to their loss and stopping moderating comments on such a site may be part of the changing nature of their grief.

(DC1) Designers of sites where moderating comments will likely be done by a bereaved person must therefore cater for this changed desire to moderate. This may mean supporting a design where a different moderator can replace another if so desired. In the case where moderation is no longer possible, nor a desired activity, comments could be archived for viewing only.

Additionally, Facebook has become the platform of choice for online social networking in recent years. There is however, still activity (albeit not much) on Anna's MySpace profile. On her page only 6 comments were made within the 12 months prior to downloading the data in May 2011, 31 the year before and 97 before this. Developers of social networking websites have had to confront issues pertaining to privacy relating to accessing the content on a deceased persons social networking profile and most social networking sites have policies surrounding this. Anna's case highlights issues of new technologies replacing old (MySpace users moving over to Facebook), and what should happen to the accounts of those who have died and thus do not have a presence on the new platform. MySpace may be still providing a place for Anna's friends to post comments, but in the future MySpace may change drastically or no longer exist. An example of a simple change is the formatting of text on

Anna's profile. MySpace has changed the formatting which Anna specified when she created her profile.

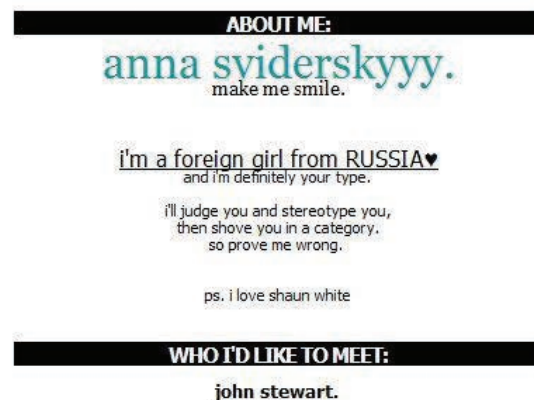


Figure 2 Anna's Original Profile Formatting

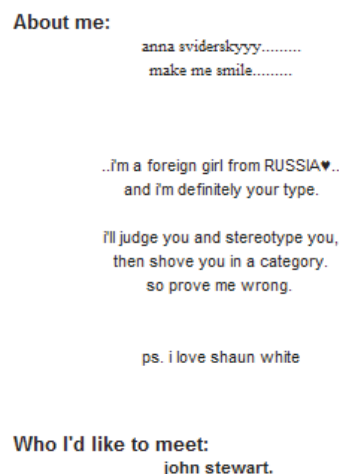


Figure 3 Changes to Formatting

This adjustment to formatting is a relatively small change and is easy to demonstrate within this paper. Other successive changes to the site have led to Anna's wallpaper images and choice of songs to stream vanishing. As a result the page's unique and personalised tone and flavour has changed. The page, in its new format has not been customised and lacks some of the warmth and personality it had five years ago. Those friends who come back to post messages on Anna's page may notice the changes – potentially losing that sense of closeness to the profile page.

(DC2) A consideration is thus to retain in death as many of the choices that the deceased made in life to their profile pages on social networking sites. Altering designs over time also raises questions of ownership. MySpace is managed by a commercial enterprise and changes are made depending on contemporary needs, likely with minimal consideration for the bereaved. A gravesite on the other hand is typically purchased (or leased) by the bereaved who have specific rights to use that land (in accordance with cemetery and state rules) for memorialising the deceased how they wish.

Replicability

Repurposing digital content after death

By repurposing we refer to reusing and remixing existing digital content. This is common practice both off and online e.g. displaying photographs of the deceased whilst they were alive, at funerals and in places around the home, and more recently video footage put together for presenting at funerals and on memorial websites. The YouTube memorial video for Anna contains multimedia such as images, music and video footage recorded from broadcast news stories. Comments on the video often referred to the emotional state of the viewer/commenter after watching the video:

I saw a video like this on myspace only a few days after she died and I bawled my eyes out. Watching this video now for about the 5th time I still cry. (YouTube)

Two main features of YouTube are at play here, the video and the social interaction afforded through commenting. Uploading to YouTube is a decision to make a video publicly accessible, allowing anybody to view the video. Videos such as Anna's allow anyone to participate by contributing comments. Carefully constructed sentimental videos will likely result in evocative messages from people who did not know the deceased and in the case of Anna Svidersky allows them to reflect on loss, death and in this instance, murder. Personal reflection by strangers is shown in the following examples.

I never knew her, but the effect her death had on me, was huuge. (YouTube)

I still watch this video, and all the other ones on the site because it helps me cope with ALL the deaths in my life... (YouTube)

In a later section, we discuss problems with strangers participating online.

Some of the images displayed in the YouTube video are screenshots from Anna's MySpace profile. Both photographs of Anna and comments on her page from friends expressing their loss are included. As a consequence of this repurposing, content posted prior to the death takes on new meaning for Anna's friends as it is reinterpreted after death. With such a massive amount of personal digital content stored on online social networking sites, comes challenges [17] surrounding what content is appropriate or meaningful to repurpose in commemoration. We believe there are opportunities to provide tools that support repurposing content from online social networking profiles. One such example is the Backup Box [27], a physical box housing a touch screen that stores archives of a person's Twitter feed which could be used as a way to reminisce about the past of that person (potentially a lost loved one). In Anna's case, her brother carefully selected items from her MySpace profile to include in the commemorative video on YouTube.

(DC3) A consideration is to provide tools within social network sites that support the practice of carefully repurposing content for commemoration. A loved one

could sample personal content relating to the deceased, and assist in constructing a personalised memorial such as a commemorative video.

Scalability

Wide audiences participating online

Massive interest from people around the world was evident in the aftermath of Anna's murder, particularly online. We have not isolated a reason why this story became so large and this is not a focus for us. Perhaps it was her appearance, that she suffered an untimely death or was stabbed in McDonalds, her outgoing personality, news reportage, or a combination of these. We are inclined to believe that it was her well-liked, relatable youthful personality combined with being a highly active MySpace user with friends just as active, whose profile was visible to anybody with Internet access. After her death the following comments were made by those who came across her story alluding to the bulletins¹ on MySpace.

I remember seeing the news coverage here in Michigan. It was one of those things where you were like, "Damn. Oh wow...she's pretty; she takes care of herself. She was a scene kid and a MySpace whore. Hits home...jesus." And then all the 'repost this' bulletins and videos started, and it's just a sad thing. :((YouTube)

I saw this bulletin on myspace, watched all the vid's, looked at her myspace, read it all. I think this is so nice of you, I even posted the vid's and a little bit about it on my myspace out of respect... (YouTube)

anna, if only you could see how many lifes you have touched. your story has touched me. i remember last year seeing all the bulletins your friends had made in remembrance of you (Condolence Book)

Anna's story is not typical. Not all those who die in tragic circumstances will result in an outpouring of condolences from around the world. Designers of social networks and websites that factor in the mortality of their users should not have that as their objective. However, increased usage of networked technologies leads to more opportunities for strangers to participate in the death of others. MyDeathSpace [28] encourages this by linking news from mostly traditional media (typically news stories posted online) to their social networking profile and allowed the general public to make comments on a forum. Commercially available online tribute pages (e.g. [29]) also allow members of the general public with Internet access to post comments.

The YouTube memorial video and the online condolence book were the websites in which strangers were able to participate. On these sites, visitors often declared the existence of a subjective connection to Anna.

¹ MySpace bulletins are similar to Facebook status updates and are common ways that stories spread throughout the social network.

...i just lost my grandma on new years so i know how it feels to lose someone... (YouTube)

i never knew anna but i do know what it is like to lose someone so young. recently a young girl at my school died tragically in a fire... (Condolence Book)

...My best friend is named Anna too, and all I could think about was the pain your family and friends must be going through and how I couldn't even imagine being in that situation.... (Condolence Book)

...I worked at McDonald's at the time, so it hit pretty close to home... (YouTube)

These subjective connections are tenuous, and reflect network technology's capacity to bring together ramified connections. By specifying this connection, the commenter is not only articulating how Anna's story relates to them but also asks them to be heard amongst the noise against those who may not have such a connection.

(DC4) A consideration could be to provide design features that help make explicit these subjective connections so comparisons between the person commenting and the deceased can be made e.g. "You are one year younger than Anna" or "You both worked at McDonalds". This would be a way to promote the similarities between strangers prior to commenting.

In addition to subjective connections, there were also references to religion and spirituality on YouTube and the online condolence book by strangers. These comments provide hints into the beliefs of those interested in Anna's story.

RIP Anna... everyone who dies young it's because they completed a mission here on earth and don't need to live the real hell and that is the life in the earth (YouTube)

may you R.I.P and always stay in our hearts. (Condolence Book)

Anna is looking down on you this very second... (Condolence Book)

Religion and spirituality provides a way for individuals who did not know Anna to connect to the death and participate in ways meaningful to them. Creating spaces where those from different religions can participate provides a challenge for designers, particularly when strangers from around the world are able to participate (issues relating to religion and technology is also discussed by Mori et. al. [16]).

A physical condolence book is where one offers condolences and may consider the condolences offered by others. The prescribed purpose of a condolence book is well established in many societies, including the United States. An online condolence book thus inherits established protocols from the offline paper-based antecedents, and accordingly, Anna's online condolence book contains many messages of condolence to the family and friends of Anna expressed in traditional form... "My sincere condolences to your family" and "my thoughts, and my prayers are with the family and friends".

Also consistent with the expectation brought from paper-based condolence books is the observation that the length of comments on the condolence book is generally longer than comments made on MySpace or YouTube. In the sample we analysed, the average word length for the condolence book is 43 words per comment compared with 27.5 on YouTube and 26.9 on MySpace. The condolence book whether on or offline, calls for text of a more formal and grammatically correct kind, whereas the still emerging and more vernacular protocols associated with posting to MySpace and YouTube call for text that is much more informal and conversational. A site that is a destination, and that exists to publish, is likely to shape the production of text in a different way to an online social networking site. The latter provides a valence for short, improvised, reciprocal exchanges of content, whereas the former provides a valence for more considered postings.

A difference however can be observed between Anna's online condolence book and traditional condolence books. Traditionally, condolence books have the overt purpose of recording messages of condolence from a group of people to the bereaved. Of course, that group may also be bereaved, but the condolence book separates the bereaved into two classes – those that receive the condolences (typically family) and those that offer condolences (typically friends, acquaintances and in the case of public figures, strangers). The traditional condolence book is thus a space to condole the living – those who have lost a loved one – it is not intended to condole the dead. But perhaps borrowing from the practices on MySpace rather than from condolence Books, Anna's online condolences were often directed at her.

Hey Anna, It's so great to see how much love you have. You've touch so many people, including ones who didn't know you personally, like me. I've been going back to your videos and myspace page every once in a while for almost 4 years now. I feel like I know you and I've never even met you. You are a special girl and will be remembered forever. Something about you, Anna, keeps everyone coming back...Say hello to my grandma, would you? Lots of love, Micky (Condolence Book)

So whilst some messages posted to the online condolence book differed to a typical offline condolence book, the similarities are enough to suggest that condoling the living still has relevance online.

(DC5) Online social networks could creatively support new ways of condoling the bereaved. For example, friends of the deceased could gather online to collectively create a multimedia memorial and gift this to the bereaved.

Whilst we have focused on positive aspects of stranger participation after death here, trolling and other unwanted contributions demonstrate the downside of participation by wider audiences. We discuss these in the next section.

Trolling

Trolling is a controversial form of stranger participation and is evident particularly on YouTube. This is a practice

whereby deliberately provocative comments are posted, often obscene, sometimes irrelevant, and always highly inappropriate, to gain attention, to offend, to impress a public of fellow trolls, and sometimes to amuse. There is a long history of trolling on the Internet – going back to Usenet News postings of cat recipes to cat-lover discussion groups – but of course this does not reduce the shock value of the postings. The technology affords trolling through its anonymity, and through the fact that among a connected public of billions, deviancy of all kinds will make itself present, and sites such as 4Chan [30] and Reddit [31] act to make certain forms of ironic irreverence the norm. On YouTube, offensive comments can be flagged as inappropriate and removed, and in the condolence book the messages are moderated. The system of maintaining public virtue in the face of deliberate damage is far from perfect though:

I can't help but jack off when bitches die. what a fat slutbag. (YouTube)

Reply: Really? What Goes Through Your Head To Make You Say That? I Mean Come On! You Really Are A Pathetic Person!!! (YouTube)

Reply: I know you're just seeking attention because you're a pathetic douche. In all seriousness though, kill yourself. Thanks :D. (YouTube)

These replies expressing disgust by fellow viewers are in their own way a form of self-moderation, specifying what should not be posted on such a video. Trolling practices have become ubiquitous phenomena on the Internet with anything of significance more than likely a target [12]. For a video watched over 3 million times, Anna's YouTube memorial video is no exception. Even for less popular commemorative videos, YouTube's design lends itself to such trolling practices. Only one inappropriate message seen by a bereaved family member not aware of the trolling culture may result in hurtful reactions. Design responses to this are challenging. Over time the typical Internet user may develop awareness of trolling and these messages will be left ignored as background noise, similar to how many of us have learnt to ignore SPAM email.

(DC6) A proactive way to address harmful posts on deeply personal pages would be vigilant moderation by service providers in the special case of online memorialisation videos. This would be in addition to the established approaches of peer moderation which already exist on sites such as YouTube.

While trolling is an overt example of inappropriate conduct around online memorialisation, other issues associated with strangers and who has the right to express grief, and in what form, also need to be considered. In this case, Anna's friends who actively spread news of her death on MySpace became inundated with messages of condolence and friend requests from strangers. They were also asked to post comments onto Anna's MySpace profile by strangers. To what extent did these strangers have the right to feel and to express emotions about Anna; a person they had never met? On Anna's MySpace page, friends posted requests to not be contacted anymore

and for strangers to stop requesting they post for them on her profile. One such stranger wrote in the comments section of the article about Anna on MyDeathSpace:

And the worst thing is that when people from myspace tried to help the friends and show that we cared they got all fuckin pissy and started being mean to everyone. Why would the publize their friends death then act like such bitches? (MyDeathSpace)

For many of Anna's friends, the intimacy assumed by strangers and their expressions of sentiment were unwelcomed. However, for Anna's mother who did not have direct contact with this crowd of strangers, this outpouring of sentiment was comforting:

For the first time since Anna's death I felt strangely comforted. People – strangers – cared about my baby as much as I did. I wasn't alone in my grief" (Quoted in Bliss Magazine [8])

(DC7) As a design consideration, the potential comfort from knowing that others share in one's grief needs to be balanced against possible feelings of harassment as a result of the attention and emotional outpourings from crowds of strangers.

Death and the benefit of boundaries to limit scale

We have already described opportunities for strangers to participate in the death of others, particularly regarding their ability to reflect on death and mortality in general as well as send messages of condolence. Here we focus on the benefits of boundaries and limiting connections to closer ties through an analysis of Anna's MySpace profile comments made by Anna's friends.

Consistent with Williams and Merten's [22] study on adolescents, we found a high proportion of comments on MySpace were directed towards Anna using the personal pronoun:

you'd love 21. (MySpace)

four years ago i was sleeping right next to that cute face of yours. (MySpace)

and sooo, i thought of you earlier today and our secret meetings it made me smile. Then i thought about all those bullitens you posted with poem and i always acted like they were about me. I saved those, and hung them up in my dorm. (MySpace)

In addition to addressing Anna in first-person terms, postings by Anna's friends are characterised by mundane conversation relating to everyday plans or activities "scarf weather is upon us. let the sweater shopping begin." Referencing the mundanity of everyday life evokes the familiarity of intimacy. In-jokes and nicknames that establish one's position in relation to Anna also set a boundary between those that knew Anna and those that did not. In-jokes are humorous comments which would be only known or appreciated by those in on the joke "you sounded so valley.. i fucking love it i love you." "Anytime someone says something about valley girls, I think about you Hussy. Miss you." Nicknames such as *Anutka*, *banana*, *little stinker* and *babygirl* were

also used to address Anna on the site, acting as signifiers of intimacy.

The wider offline culture also frames online activity on significant days of the year such as birthdays “*happy birthday, fellow skank partner. ily! xoxo*”, and New Year “*Happy New Year Anna i hope u had a cool ass party up in heaven*”. In addition to these traditional celebratory days, there was extra activity on the anniversary of the murder “*today's date is the worst ever, i cant stand it*”. Interestingly this intimacy is retained years after her death.

In life, it is unlikely many outside of Anna's friends and acquaintances on MySpace would have visited her profile. This collective constitutes a boundary for Anna's audience. This was established while Anna was alive by utilising the affordances of the technology to call people to her MySpace page, accept them as ‘friends’ and allow them certain agency on her profile. The privacy setting on Anna's site however, is set to publicly visible; meaning anybody using the Internet can view her profile while only ‘friends’ can post. After she was killed, those who viewed her profile likely grew to include those who were interested in the story of her murder. Rarely do Anna's friends address this wider public. However, when posts were made by somebody not recognised by the insiders, this is addressed:

ummm. How are those people posting comments? Wtf.
(MySpace)

So what's with all these comments from people who didn't know you? (MySpace)

These indicate a perceived intrusion of the closed system where only those who were linked to Anna in life were allowed to contribute. If it were an open system where anybody could comment after her death, the types of intimate message would likely have been swamped by messages from strangers. Offline the boundaries between family, close friends and acquaintances at events such as funerals are made explicit e.g. the family may sit in the front row of proceedings, friends behind and the remainder towards the back. Online the connections Anna made on MySpace in life constituted a boundary between those who could contribute to intimate expressions through MySpace after death with others able to participate on platforms such as YouTube or the online condolence book.

(DC8) A dilemma for the design of social networks is who should have access to online profiles after death. Family members and friends who were never connected online to the profile in life may wish to participate by commenting after death. Considerations could be made so that in life, social networking users can explicitly specify who may gain access to their account after they die.

Searchability

Search or Explore the Past

Searchability relates to the trend of networked technologies supporting tagged information and searchable functionality and practices. To find Anna on

MySpace when she was alive required using the standard search tool to find contacts by typing her name or username ‘*Sceneslut*’, or connecting to her profile through a mutual online ‘friend’. Those who did not know Anna and were interested in seeing her MySpace page after she died were provided links from various places such as MyDeathSpace, and the online condolence book.

Similarly, those wanting to view or sign the online condolence book would have to know the URL, or have seen a link to the page on another website or navigated using a search engine. Thus both visitation to MySpace and the condolence book was only possible once you had found out about the story from somewhere else and had a specific desire to see more about Anna. YouTube is configured differently in that users not only search for specific videos of interest, but recommendations are based on previously viewed videos thus videos lend themselves to be found accidentally, particularly popular videos such as Anna's:

I just accidentally stumbled across this while looking for videos for the band Beloved.... (YouTube)

so...i just stumbled across all this. this is all really sad.... (YouTube)

I found this accidently! And it made me sad. R I P Anna! (YouTube)

The above refers to how you may connect or find information about Anna online, but finding a specific comment from the past is not something prioritised on any of the sites we looked at. Surprisingly there is no simple way to search for specific historical text on MySpace pages, YouTube comments or the online condolence book messages. None of the comments we coded from the three websites suggested frustration over not being able to search for a specific comment from the past. This does not mean that such a search would not be a useful tool for users. It does however, bring us to consider how content such as posts by Anna and her friends while Anna was alive, and the comments made after her death over time, may be perused by those interested in the past. The MySpace profile, online condolence book and YouTube comments support page-by-page navigation (e.g. Figure 4) supporting users flicking through past comments chronologically.

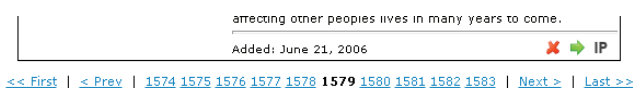


Figure 4. Navigating Pages of the Online Condolence Book

(DC9) Our final design consideration is to provide alternative ways of navigating personal content relating to the deceased beyond search and chronological navigation controls, which are common on websites containing vast amounts of personal content. Creative techniques of sampling large repositories of personal content are necessary. A promising study presenting alternative ways of sampling from large repositories of information is

presented by Pearce et. al. [18] where the notion of exploration is promoted above searching. It is suggested that search lends itself to knowing what you are looking for while exploring is suited to instances where you are not sure what you are looking for and wish to sample based on predefined preferences. Such technologies may, in future, provide Anna Svidersky's loved ones different ways to come back to the relevant online platforms. Rather than traversing vast amounts of content chronologically, these would allow them to sample based on criteria such as Anna's sense of humour or even sample some of the meaningful interactions with her friends on birthdays.

CONCLUSION

Death needs to be treated differently online to other aspects of the human experience. Giggling at a video of a sneezing panda is technically treated exactly the same on YouTube as a commemorative video of a teenage girl tragically murdered. Trolling is an obvious example with consequences far greater in online memorial videos than in a humorous video. Prior to the influx of networked technologies we had practices, rituals and manners which were unique to the time and place of death and its aftermath. Similarly, we suggest that design online environments, which have an orientation around death, need to actively consider designing for practices, rituals and manners that could be accepted by the bereaved and broader community. By analysing the comments over time by both those close to the deceased and strangers, combined with an understanding of the affordances across three online platforms considered, we have identified the following design considerations:

- DC1.** Given that the moderation of comments will often be done by the bereaved who may not wish to moderate indefinitely, websites need to cater for transferring moderators, and/or allowing them to archive the content.
- DC2.** Given online social networks change over time, any personalisation (e.g. formatting) made in life to profiles on social networking sites should be retained in death.
- DC3.** New online tools that support repurposing content from online social networks for memorialisation should be considered. This could include the bereaved taking content from social networking profiles of the deceased and repurposing it for the creation of commemorative multimedia such as videos.
- DC4.** To promote reflection for strangers hoping to post a message on a deceased person's online profile, similarities between the stranger and the deceased could be made explicit (e.g. "you are one year younger than the deceased").
- DC5.** Online social networks could creatively support a method of delivering messages of condolence from online friends of the deceased to the bereaved.
- DC6.** Design responses to trolling activities are challenging and require special attention given

how hurtful they can be for the bereaved. One approach is to create a special category (for content such as memorialisation videos) where vigilant moderation by service providers is performed.

- DC7.** Designs need to consider balancing emotional outpourings from crowds of strangers, against feelings of harassment by the bereaved as a result of online attention.
- DC8.** The design of social networking sites could allow users to explicitly specify who gains access to areas of their profile after death.
- DC9.** We suggest content relating to a deceased person may be better navigated by sampling content using notions of exploration rather than searching or traversing vast repositories of personal information chronologically or by textual search.

LIMITATIONS

There are important limitations of our study. Firstly, it could be argued that Facebook (given the recent changes to include memorialised profiles [23]), and not MySpace should be the focus of our study. We also had sampling limitations where specific dates of comments across MySpace and YouTube were not displayed for comments made over one year ago. The most significant limitation however, was that Anna's death was special. It was a murder and not a 'typical' death, and more importantly there was massive interest from around the world in her story in the aftermath which would not always be the case for other tragic death.

These are limitations of our research, however they also provided us a historical case to explore changes to the websites over time and reflect on usage over a number of years. Additionally, given the massive online interest in Anna across multiple websites after her death, it gave us the opportunity to provide design considerations relevant to a variety of online platforms. As technology use becomes common in the aftermath of one's passing, the platforms used will better serve those left behind by taking into account our design considerations.

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