

The Many Faces of Facebook: Experiencing Social Media as Performance, Exhibition, and Personal Archive

Xuan Zhao, Niloufar Salehi, Sasha Naranjit, Sara Alwaalan, Stephen Voids, Dan Cosley

Information Science, Cornell University
301 College Ave., Ithaca, NY, 14850
{xz298, ns685, shn22, sa782, svoida, drc44}@cornell.edu

ABSTRACT

The growing use of social media means that an increasing amount of people's lives are visible online. We draw from Goffman's theatrical metaphor and Hogan's exhibition approach to explore how people manage their personal collection of social media data over time. We conducted a qualitative study of 13 participants to reveal their day-to-day decision-making about producing and curating digital traces on Facebook. Their goals and strategies showed that people experience the Facebook platform as consisting of three different functional regions: a *performance region* for managing recent data and impression management, an *exhibition region* for longer term presentation of self-image, and a *personal region* for archiving meaningful facets of life. Further, users' need for presenting and archiving data in these three regions is mediated by temporality. These findings trigger a discussion of how to design social media that support these dynamic and sometimes conflicting needs.

Author Keywords

Reminiscing; personal archives; curation; identity; exhibition

ACM Classification Keywords

H.5.m. [Information interfaces and presentation (e.g., HCI)]: Miscellaneous.

INTRODUCTION

Hundreds of millions of users are generating digital traces of their daily lives in social media. Social media serve many purposes, the most salient of which relate to their original functions of communication and social connectedness. Research around these platforms has focused on issues that arise in the context of social interaction, such as how these systems support identity presentation [5, 16] and how they help people build social capital [6]. These studies generally conceptualize social media as a platform for context-specific, selective "performance," following Goffman's theatrical "front stage/back stage" metaphor for impression management and the enactment of social roles [7].

A more recent metaphor extends Goffman, arguing that social media's reviewability and searchability lend social

media the feeling of an art exhibition in a museum [11]. In this metaphor, performances leave behind digital traces that act as digital artifacts of the performance, and the accumulation and collection of these artifacts causes these spaces to take on the character of a long-term identity "exhibition," rather than that of an ephemeral performance.

The value of these exhibitions is not limited to others. Much of the content that people create in social media has personal meaning [4], and the emerging personal value of content in these media has been explored in recent studies [15, 25, 29]. Thus, despite these systems' focus on social purposes, it is fair to say that "*today there is an increasing desire to use online social media as a way for archiving life experiences and reflecting on identities*" [9, p15].

These shifts and emerging goals triggered us to rethink the nature of social platforms, the curation of data that they afford, and the ways that individual users conceptualize and experience social media and the data they create in them.

Both the archive and the exhibition metaphors point to the importance of the past in social media. However, except for recent work around reminiscing [29], reflection [33], and digital possessions [27], there has been little study of how people make decisions about their past content. Likewise, little is known about how the performance, exhibition, and archiving perspectives coexist. As we move into a world where one's digital traces express more of who we are, it is important to learn and design around not only how and why people produce digital traces, but also how and why they take care of this data, and how the relationship between users and their data might change over time.

To address these questions, we conducted a study of 13 active, long-term Facebook users about their day-to-day experience of creating and managing Facebook data. Their responses indicate a complex, dynamic relationship between people and their data, in which the combination of concerns and goals that people have and the tools the platform provides fall into three broad "regions" that roughly align with the perspectives described above: a *performance region*, an *exhibition region*, and a *personal region*. By "region" here, we mean a set of goals, concerns, contexts, and corresponding system features.

As we shall argue, these three regions have both spatial and temporal aspects, with both elements of the interface and elements that depend on the recency of content and duration

© ACM, 2013. This is the author's version of the work. It is posted here by permission of ACM for your personal use. Not for redistribution.

The definitive version was published in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '13)*, Paris, France, April 27–May 2, pp. 1–10.
<http://doi.acm.org/10.1145/2470654.2470656>

of goals helping to define them. We identify the implications of these regions in social media systems, particularly in the tensions and opposing needs people experience as they manage their Facebook data. Finally, we discuss how thinking about these regions and the ways current platforms support them suggest metaphors that might drive designs that better support all three regions together.

RELATED WORK

*“The Moving Finger writes; and, having writ,
Moves on: nor all thy Piety nor Wit
Shall lure it back to cancel half a Line,
Nor all thy Tears wash out a Word of it.”*

—Omar Khayyam

translated by Edward Fitzgerald

We explore the complexity of social media from two perspectives: as a space that extends in time and as a space that serves both public and personal purposes.

An Identity Platform that Extends in Time

Goffman’s notion of selective self-presentation [7] is widely used in studies that examine how people interact with each other in online spaces, for example, work that focuses on impression management [1, 3] and privacy management [32, 34]. In his dramaturgical approach, Goffman conceptualizes the “front stage” as where a performance is given in presence of an audience. People often need to selectively present themselves in order to meet social expectations and cultural values. In comparison, the “back stage” is a place where only the performer exists, without the audience and where other aspects of personal identity might be revealed.

This metaphor maps well onto salient elements of social media. It matches well with the fact that behaviors in social media are socially embedded and observed, activating concerns about others’ expectations. The metaphor also emphasizes present action: *“The Moving Finger writes; and having writ, moves on.”* Most social media systems emphasize the present, featuring recent content and burying the past both to support goals such as awareness of friends [13] and to draw repeat visitors with fresh content [26].

The past, however, does not have to be buried, as illustrated by Facebook’s own Timeline interface (Figure 1). Timeline explicitly organizes a person’s content around a linear timeline that supports browsing far into the past, including links directly to activity that happened years ago. This makes the past much more salient than in pre-Timeline versions of the interface, where past status updates and wall posts were available, but required tedious paging through a list; and past photos were available, but organized in albums rather than as a temporal stream.

Hogan’s exhibition metaphor calls attention to these past data [11]. He conceptualizes social media as a storehouse, where users submit their personal data, and the system acts as an invisible curator who manages, redistributes, and selectively displays content for audiences who have access to the user’s data. Systems provide users with limited control:



Figure 1: Facebook’s Timeline interface and the time links (see inset) that provide rapid access to past content.

“nor all thy Piety nor Wit shall lure it back to cancel half a Line” resonates with the feeling that many people have when trying to manage privacy settings. Hogan emphasizes that “performance” is closely associated with a specific “time-space-identity-locus”, but that once the data associated with a performance are recorded, they become artifacts that others will view at different times and contexts. Therefore, social media data are used more for asynchronous exhibitions than synchronous performances.

Most current research either studies users’ activity and motivations for using social media as a snapshot in time [13, 22] or their collective usage patterns over time [8, 17]. Hogan’s approach emphasizes the need to think about the relationship between *individuals* and their data over time. Given the persistence of social media data, it becomes interesting to consider how notions of performance and exhibition manifest on the same platform. In particular, there is an uneasy relationship between people and their past data when the data becomes detached from their original context. For example, Wang et al.’s descriptive taxonomy towards Facebook regret behaviors [35] begs a deeper discussion of *why* people regret, and take explicit management efforts such as deleting, detagging, and unfriending.

An Identity Platform for the Self

Both the performance and exhibition perspectives frame social media behavior from an outward-facing, public perspective. This framing is natural given the social nature of these media, but the emerging practice of using social media for personal archiving [9] leads us to consider whether the self has also become an important audience. One conceptualization of these data is the notion of “digital possessions” that carry and display meaningful events, places, and people for both the self and others to view [21, 27].

A second line of work explores how social media data traces can mediate and support reflection processes. These traces appear in many media: e-mail [10], text chat [36], and social media including Flickr, Picasa, last.fm, twitter, Blog-

ger, and Facebook [29]. On balance, this work has focused on individual sensemaking and use, although there has been some attention to supporting relationships and family using both digital traces and physical possessions [30, 31] and studying how people use digital content to think about and enact their friendships [33] and romantic relationships [37]. Information generated and owned by others can play an important role in this meaning-making process [33], although issues around third-party ownership can make the management and curation of these data difficult [27].

This research suggests that digital traces left in social media contain great potential for stimulating and supporting self-reflection and reminiscing activities. Both the intentional use of social media as a “life logging” tool and the potential usefulness of digital traces for memory and reflection highlight the importance of understanding how people balance the public functions and personal value of social media. For instance, the unwritten rule limiting public displays of affection in Facebook might prevent people from recording as much about relationships as they would like, while changes in a relationship might cause content previously important for public affirmation to become instead a source of pain [37]: “*Nor all thy Tears wash out a Word of it.*”

STUDY DESIGN

Our study aims to explore how practices of online presentation, exhibition, and archiving are intertwined; how needs for different activities contrast or align with each other; and how designs might help to balance, support, and enrich these practices. We approach this problem by investigating how and why people manage their Facebook data. We seek to provide a deep understanding of how aforementioned theories manifest in the interaction between users and their own data, to identify how these perspectives are relevant to social media systems, and to discuss implications for designing systems that support these practices.

Research Context and Data Collection

On December 22, 2011, Facebook launched Timeline. As described earlier, this user interface makes past data more salient for both the user and members of their social network, highlighting a number of the issues in which we are interested related both to temporality and the tension between public and personal goals. Now a standard part of the interface, Timeline was originally opt-in and adoption was slow, allowing us to sample a set of users as they began to use the interface and grapple with these issues.

We conducted our study in May and June of 2012, around six months after the new interface was launched. To try to improve the diversity of our sample, we used Facebook advertising to recruit participants. The ad was targeted at Facebook users living in our local community (a small city in the northeastern United States) to facilitate bringing participants to our lab for an interview. We also targeted people who had used Facebook for several years and had generated a significant amount of social media content. Participants were compensated with \$15 in cash.

A total of 13 people (9 female, 4 male; 8 White/Caucasian, 2 Asian, 2 Hispanic/Latino, 1 American Indian/Alaskan Native; aged 18 to 43, $M = 22$) with an average of 4.3 years of Facebook activity completed the study. Participants first completed a pre-survey with questions about their Facebook use and demographics. Seven of our participants had already installed Timeline at the time of the study, while the others were instructed to adopt it after completing the pre-survey to capture their initial reactions to the interface.

Each participant then completed a daily online diary for two weeks about aspects of Facebook use related to data creation, curation, and sensemaking around digital traces—questions derived from the theoretical perspectives above. We asked them to record whether they had updated or changed their profiles by adding a new post, changing privacy settings, and so on; whether they had reviewed their own or others’ past content; and whether they had managed past content of any sort. The daily diary allowed us to record actions and reactions close to when they happened and provided us with examples to reference during interviews. We reminded participants about the diary via daily e-mails.

After two weeks, participants came to our lab for a one-hour interview. We asked them to log in to their Facebook account and to review their profiles during the interview, both to reflect on their experience and to enrich their responses. We asked general questions about their overall Facebook usage and privacy attitudes, in order to encourage them to reflect on the kind of management behaviors in which they engage. We specifically asked about their Facebook activity from a temporal perspective, such as how they felt about their past content and how they valued it, in order to understand what Facebook data means to them, as well as if, when, and why they take explicit action to manage it. Other questions included how and why they view others’ past content and their attitude toward Timeline after having used it. We also encouraged them to talk about offline archiving experiences such as journaling and their experience with other social tools (such as Flickr and Twitter) and to compare these experiences with their use of Facebook.

Data Analysis

To develop a holistic understanding of participants’ use of Facebook, we included data from both diary entries and interviews in our analysis. We conducted a collaborative, inductive analysis process. In the first analytic phase, we used open coding to develop a set of primary categories, including real-time decision-making of Facebook activities, management behaviors, browsing behaviors, general use of Facebook, and so on after browsing all interview data.

Based on this draft of primary categories, four researchers independently coded the same three interview transcripts to develop and refine these categories and subcategories. For example, subcategories of “management behaviors” include description of behaviors, motivation for managing, strategies for managing, and so on. In the end of this first-phase

discussion, we established a high-level agreement and common ground for categorizing and interpreting the data.

In phase two, we used TAMS Analyzer to map all interviewees' statements onto these primary categories. Each of the four researchers reviewed half of the transcripts, such that all data were examined by two researchers¹. This initial categorization was used to sort the data so that we could easily review related data together to help discover themes in the third, primary phase of our analysis. In the third phase, we conducted a series of face-to-face meetings in which we used concept charting [19] to expand on and refine interconnections across the themes and sub-themes that emerged. Each researcher was assigned one or more stacks of related data based on the initial categories and developed detailed themes in those data. Further, we often discussed and traded data when questions or controversies arose.

Below, we present the themes using representative quotes from participants. We structure the discussion around three main themes. The first is the idea that although Facebook is a single platform, it provides multiple regions of activity. The second is the key role of temporality in how transitions between and tensions among these regions occur. Finally, we discuss how future designs might better account for these multiple regions by providing appropriate curation tools and metaphors.

ONE PLATFORM, MULTIPLE REGIONS

Our data provide strong evidence that people do, in fact, experience Facebook from the analytical perspectives identified earlier, around the performance and exhibition regions ("public regions") and the personal region. In this section, we explore the shape of these regions, as well as the tensions and opposing needs people experience as they manage their Facebook profiles across multiple regions.

Performance Region: Creating Content

Consistent with Goffman [7], the *performance region* is where users make decisions about creating and managing content for current self-presentation needs. The content is usually targeted to, or associated with contexts and audiences relevant to the moment.

(There is) a video posted by my girlfriend that was related to a phone conversation we were having. (P2)

I updated my status to show team support for a big meet. (P18)

Decisions made in the performance region also include who people decide to be friends with, with context influencing their behaviors as well, making "friending" another sort of performance act.

¹ We do not report inter-coder reliability; as argued by Armstrong et al. [1], reliability measures are most useful when the coding breakdown is the primary output of analysis. When the codes are a first step toward further interpretation, measures like kappa give little information about the quality of the analysis.

[I friended him] because he was at camp with me so after camp I guess I just got friend requests from people there or friended people who were there ... (P16)

[I friended them] just to be friendly. Like, it's just kind of rude [not responding] if someone is friending you ... If I really dislike somebody, I won't accept it. But if they're a nice person and maybe have something interesting to say, I'll—I'll accept it. (P9)

Constraints in the performance region change over time, and participants leverage features such as profile pictures to customize their self-presentation for specific situations:

I changed my timeline cover, because the soccer game Barcelona vs. Chelsea is coming up soon and I want to show my support to Barcelona. (P2)

The fact that both the old Facebook profile page and the new Timeline interface prioritize content based on recency ensures that context-relevant performance is positioned for maximum exposure, both in the flow of updates on one's profile page and in others' news feeds. In general, the performance region is closely associated with a time-space locus that focuses on current activity and current goals:

Yeah. I mean overall I'd say I am [conscious about how my page appeared to other people]. But I think it more so applies to like my current content. (P6)

Exhibition Region: Managing Content

Due to the persistence of social media data, content initially bounded by a specific time-space locus gradually goes into the *exhibition region*, modeled after Hogan [11]. For the most part, this region focuses on past data and longer-term needs around constructing identity. However, while Hogan's discussion of exhibition focuses on the system's role in data curation [11], our results show that users, too, wish to play an active role in curating data in this region.

Participants were not always concerned about the past, but when they were, they encountered decision-making challenges regarding the changing contexts and the appropriateness of the content on their profiles. These challenges sometime resulted in an explicit competition between the performance and the exhibition region that drove management behaviors. We define management here as a conscious behavior for evaluating personal profiles or tweaking one's public presentation in social media over time.

The concept of management hints at a conscious effort, consistent with how previous literature defines personal information management as a practice that involves maintaining, organizing, retrieving, and redistributing personal information for task-related purposes [14]. It was common for people to express concerns about past data that was emotional, hard to interpret, inappropriate for their self image, or irrelevant to themselves or others.

Managing emotional content. Emotional or self-expressive content was frequently mentioned as the content needing

the most attention. At the time of performance, this content might have been quite useful: “I was so frustrated at the time, posting a status about it was a slight relief from the situation” (P6), but it became undesirable, or subject to misinterpretation, out of context: “Because I thought my status may have come off as a bit whiney or condescending...” (P6). This finding is consistent with prior work that looks at tactics for self-presentation in face-to-face situations [18] and experiences of regret in social media [35].

One aspect of context that came up often as a trigger for managing emotional content was how others might interpret a given post:

I was in a certain mood right then and I posted something ... I went back and read it I realized that people probably wouldn't take it sarcastically. That's so hard about communicating online, is people can't tell ... your emotion behind stuff. (P12)

Managing overall self-image. When people take a critical eye towards their Facebook profiles, they are usually concerned about whether the content still promotes or adds to their overall self-image. Over half of participants mentioned that they have deleted content that is related to a specific event or a specific conversation but does not have value for long-term exhibition of the self:

I would delete it, yes, like after the event happens it's like really useless. It doesn't add onto my life or my timeline. I try to keep it clean. (P2)

These concerns would also trigger based on participants' desire to control how much they revealed about themselves:

I'm an organized person and like things to be more concise and ... I want to limit how much I'm showing people about my life at a time. (P10)

About one-third of participants also mentioned their concern towards old content, which seemed to be appropriate, “cool,” or “funny” at the moment but became undesirable as people's values changed over time:

I had an [photo] album in ... 2007 ... I thought it was cool...and two years later I was looking at it and it embarrassed me so much that I deleted some of the pictures. (P3)

Managing relevance. For most participants, it was important to keep data on their profile relevant, both in the sense of content and temporal relevance. More than half of the participants actively manage recent content “...just to kind of keep it relevant” (P7) to their current life. People would delete bits of information about having read articles, or listening to music, even if “it's not hurting anything. It's just kinda cluttering what's there” (P12).

Most participants also recognized that recent content was most likely to get attention from others, leading management activities to focus on recent content:

[I manage] just the most recent stuff because I assume that most people don't have the time or patience or desire to go back further than that. (P5)

Managing friends. Besides content that expires in time, people also treat the relationship of being a Facebook friend as a dynamic concept. They frequently adjust their friend list to make sure that people who have access to their profiles are appropriate audiences for their long-term exhibition. In particular, they were sometimes motivated to control others' access to their information:

Sometimes I would friend people for like a specific purpose like I'm working with them on a project ... but like afterwards do I need to have them see all my information all the time. (P6)

The other major reason for removing friendships was relationship change:

After a really horrible suite/living situation with now ex-friends, I did end up deleting, blocking, and changing the privacy settings on my Facebook because I felt that they could find out things about my day, my schedule, my emotions, by reading my Facebook if we remained friends and I wanted nothing to do with them anymore. (P11)

Friend list management corresponds closely with Hogan's observation that once a performance becomes recorded, the content submitter (user) may have little control over how their content will be consumed by others who have access to the exhibition. The ability to delete friends seems to be one common strategy that people use for transitioning content into the exhibition region.

Personal Region: Curating Content for the Long-Term

When participants responded to our questions about how and why they manage their profiles, exhibiting their image to the public was not the only concern. Almost all participants noted that Facebook has significant *personal* value, serving as a “personal locker” on the Internet that archives their personal and social memories.

We define the *personal region* as the place where users perceive or manage their Facebook data around a perceived personal value such as reminiscing and reflecting, as opposed to traditionally rendered public values such as self-presentation to others. This region is also focused on the past, and on features that promote archival storage:

Because I don't keep everything on e-mail or on my computer or written down someplace. So a lot of times Facebook is the way that I remember stuff ... And I like to go back and see how ... my silly friends and I were, back in the day. (P12)

Whether or not they frequently use Facebook as a reminiscing tool, participants found this archival space to be reassuring: “I mean I actually like having the past stuff, not that I

frequently look at it but if I ever do want to reminisce something ... it's cool that it's there" (P3).

On balance, most participants preferred to have a record of “everything” happening on Facebook, negative or positive, even in the case of difficult relationship endings:

I'm not friends with a lot of people that I was friends with years ago. And sometimes it ended really badly ... but sometimes I get nostalgic, I go back and I smile and I remember and it makes me feel really warm sort of like comforting to know that stuff happened and reflect upon it. (P5)

Decisions about whether to archive or access specific content, however, might change over time:

So like at least for me, I'm now best friends with my previous boyfriend, so there would be no reason to delete these pictures. I think though I remember at the time untagging myself in pictures and then ended up retagging myself ... I was angry when we broke up ... but then I went back and retagged some of them because I liked the picture. (P6)

Tensions Between Public and Personal Regions

The fact that Facebook is designed primarily to support social and public activity raises tensions between the public and personal regions. People do struggle to balance what is desirable for public display and what they want to keep for personal archival, sometimes facing the “ongoing tug of war” (P5) to sacrifice one or the other:

I look weird in that picture ... Oh my goodness. I don't like it at all but I don't know if I would delete it because I like having that memory. (P6)

Photos are seen as being especially valuable in the personal region. However, photos also have a significant public component as well, since people are often tagged in one another's photos. People who value this collection or are used to claiming the ownership of photos in this way face more of a psychological burden when they don't think that the photo is publicly desirable:

I've had people post photos of me and be like wow this is a bad photo. But I mean ... if I untagged all the photos that were bad I would have no photos at all. (P7)

However, untagging yourself from a photo removes your access to it, and, as with deleting content, can lead to regret:

I tend to delete, untag myself off of a lot of pictures, and sometimes I think it's a mistake because then afterwards when I want to look back I'm not going to have that much to look back on ... But, anyway, I still like to just keep the things I think are relevant (on Facebook) even though it's probably a mistake. (P2)

One way that people deal with this tension in ways that minimize regret is by using Timeline features that provide more control over the exhibition region. The most frequent-

ly used such feature is “hiding” content, which prevents it from appearing on the Timeline but leaves it accessible from elsewhere, such as albums:

I rarely un-tag photos that I don't like of myself but I'll hide it from my timeline, it's like I don't need that to be like the first thing anyone sees when they're on my page. But I do like to keep them just because like most of them are nice memories. (P6)

Leaving tagged pictures “awaiting approval” of the tag is another way to keep photos without exhibiting them:

I leave it in the approval section, like where you have to click yes or no ... I don't delete it because it's kind of nice to remember the stupid, funny nights ... (P4)

The personal region seems to be more tolerant than public regions, in that most people prefer to have a record of all that's happening on Facebook—negative, positive or informative—versus the need to be vigilantly selective about content visible to the public. However, this raises important questions around how Facebook might better support the personal region, since content normally must first pass through the public performance region unless people take special care to use non-default privacy controls.

TEMPORAL TRANSITIONS BETWEEN REGIONS

This brings us to our second major theme, which highlights the important role that temporality plays in mediating among these regions, one reason that we define regions as having both a spatial and temporal component.

Between Performance and Exhibition Regions

As content moves from performance to exhibition regions, people are faced with the need to re-evaluate and re-select content. Temporal relevance serves not only as one important factor that people consider when managing their profiles, but also as an important boundary for separating performance and exhibition regions. Participants tended to perceive their “recent” content (in contrast to their “former” content) as providing a more accurate representation of self, reflecting who they are right now and what they're up to. As specific performances “expire” in time, needs for managing content, such as deleting, might arise.

Participants commonly talked of content that was *relevant*, *recent*, *current*, and *past*, highlighting the importance of temporality. In general, they tied the notion of recent content to the front page of their profiles; however, they had widely varying perceptions of what counted as “recent.” Some participants perceived recent content as being comprised of a day's worth of content, while others felt it might include up to a month or a year. The closest commonality we found was that there was broad agreement that recent content would help people catch up on one's life, and tended to represent current aspects of the self well:

I think when I look at my page it's like ... Like wow, this is what Katherine's been up to lately, like okay

like that's what she looks like, pretty background ... she got into [university name]. (P10)

The notion that current Facebook content represents the self well is closely tied to the notion that the “big events” in their lives are documented on Facebook, such that an audience can easily catch up with a person’s present state:

I mean, obviously, there's more to my life than just what you see on the Facebook, but as far as like big events happening, like getting into [university] and like running that race and ... Those are just some big things that have been happening ... (P10)

Big events also served to make the transitions between performance and exhibition regions salient, when people faced meaningful life events or turning points. For example, relationship changes, “*applying for a job*” (P2), and graduation were all commonly mentioned as triggers:

Then we got into a really bad spat and then, like, it was just getting, like, kind of nasty about it. So, like, I just took them [friends] off Facebook. (P4)

It usually depends on sort of what jobs I'm looking for or what internships and it's whether that's like changing the profile picture to be more professional or just having it be like slightly more casual. (P1)

Other than that, Facebook content management tasks were a more sporadic activity that people undertook when they “*have a lot of time to kill*” (P5).

Between Public and Personal Regions

Temporality also plays an important role in mediating between the public and personal regions. We found that as social media data “expires” from the public’s attention, it also gradually transitions into a personal space where it is mostly seen as an archive of meaningful memories.

Part of this idea of content expiration comes from a perceived norm that public attention only focuses on recent content. Participants predominantly felt that if they are not viewing the past content of others, then no one else is viewing their past content, either: “*most people don't have the time or patience or desire to go back further*” (P5). When personal content exceeds its “shelf life,” it crosses over into an awkward state that users perceive as “implicitly private.” People expressed discomfort when others accessed their old data: “*I think it's weird when people comment on my old stuff because you can sort of tell that they're digging*” (P1). Participants also felt that they were invading others’ privacy when accessing old data, even for short definitions of “old”:

It would be weird, like if I came down and I like ... even like to a week ago it would be weird if I like now commented. (P6)

Because it means that you're like digging through their profile and sometimes that's ... I don't know, I mean, because it's like referred to as creeping on

someone—in a nice way—but if I go through old photos I usually wouldn't comment on them. (P7)

Although the archive is not necessarily seen as appropriate for others, it has value to the self:

I think it's good to have [an archive], if not for someone else, for myself. Because I don't keep everything on e-mail or on my computer or written down someplace. So a lot of times, Facebook is the way that I remember stuff ... I want to be able to go back ... I do like that. (P12)

Timeline Creates and Alleviates Temporal Tensions

Timeline also provides a nice case in point about how interfaces can interact with these temporal tensions. As shown in Figure 1, the interface provides a kind of temporal data segmentation. Content generated around years and months are gathered and arranged within sections of one’s Timeline, and access points are provided on the front page.

This design both creates and alleviates tensions among different functional regions. On one hand, the easy access to old data led many participants to engage in significant management of their Facebook content because the sudden availability of older content blurred the lines between performance and exhibition: “*When I first got Timeline, it was showing me like all the stuff from the past. I hid things that I was like, people don't need to know about that*” (P5). However, other participants felt that attaching timestamps to data helped to resolve the “temporal context collapse” between performance and exhibition regions:

Timeline does kind of embrace your history ... maybe it's the ambiguity [of the old profile] that makes me want to just delete it just to have the current and relevant stuff ... But I guess with Timeline it's like—oh, okay—you see these pictures, but they are from 2008. (P10)

DESIGNING FOR THE MANY FACES OF FACEBOOK

These tensions highlight the uneasy coexistence of these multiple regions in a single platform. Facebook supports some goals (mostly social) and some curation strategies well, but its support for user curation and the personal region are not strong and often run afoul of users’ needs.

Here, we discuss the sometimes-uneasy relationship between the system and users curating together, along with the need for better designs and more effective metaphors for supporting dynamic needs and multiple regions emerging from the same “overloaded” platform.

Who Curates, and How?

Hogan’s discussion of past data emphasizes the role of the system as content curator [11]. Our study points to a more complex story, including the user’s role in curation and the various strategies that the system and its users engage in, alone and collaboratively, to manage performance, exhibition, and personal archiving. Some decisions, such as the format of Timeline or the algorithms used to filter content,

are executed by the system unilaterally. Users also have some unilateral choices, particularly around the decision about whether or not to post content in the first place.

After the creation of content, users' ability to curate their data and exert control over how they will be exhibited is both empowered and limited by system features, such as the ability to delete content, to create sharing and privacy policies, to manage friend lists, and so on. In observing users' active role in curating their content, we found that some system features effectively supported their curation needs. For example, hiding content and delaying approval of tags were both used to accomplish high-level goals around controlling the exhibition of data.

At other times, however, the tools don't align with people's needs or mental models. For example, although Facebook provides privacy settings that support personal use, it provides no obvious personal spaces for private reflection and meaning making around this personal content:

I notice I have a few things that are private only to me but like they're not separate in any way. They're not like special, "oh, these are only for me ...". (P10)

Lack of visibility about how the system curator works can also confuse people [12], resulting in distrust and defensive behaviors. One example of users trying, but failing, to embrace system curation tools is in the use of privacy settings. All participants in our study used Facebook's privacy settings, such as only allowing friends to view their profiles. However, there is confusion about how effective these controls actually are, resulting in people relying on—but not always fully trusting—the system:

We were young enough when it (Facebook) went public that we saw kind of a year or two before us getting really scrutinized heavily by future employers and I know there's all sorts of workarounds on Facebook that they can use to hack in and see your stuff so I don't really trust Facebook's privacy settings. (P1)

Likewise, although one-third of participants actively used the ability to hide Timeline content to manage tensions between public and personal regions, a similar number didn't understand how this mechanism might support their use of this hidden data because the interface didn't make clear what would happen or how to access it:

So, in terms of hiding things (from Timeline), like, for me, if I hid it, it's gone because ... I don't know ... I don't even know how I would get that back ... So hiding and deleting is kinda the same thing. (P6)

Another problem arises when curation is too costly. Consistent with previous work [20], audience segmentation is seen as being useful for managing information inflow, but is too hard to use to control one's own sharing:

If I could wave a wand and just say only my writer friends, then that would be ... I might do that, but it's

just such a ... it would be such a pain to sort everybody and to think about that every time. (P9)

Finally, goals for curating personal data feel awkward in the social context of Facebook. Though in principle it supports self-archiving through its privacy settings, this feels unnatural in the current platform:

I notice when I created my most recent album that it was ... only visible to me and I was like, well, if it was only visible to me, why would I put it on Facebook because I would just keep it on my computer. (P7)

These aspects of features, models, cost, and norms around curation highlight the need to think about how system curation decisions and tools affect users' behavior and norms. When we step back and think about Facebook's curation policies, the most salient is based on temporality. Facebook, like most other social media platforms, arranges content around the time that it is created, resulting in recent content being prioritized while earlier content flows backwards into one's online identity exhibition. On that note, even though no participants explicitly commented about it, we wonder to what extent this taken-for-granted system curation policy has shaped users' perceptions, such as perceiving the Facebook norm as "going forward," and their behaviors, such as how they tend to manage temporally adjacent content in Timeline. This possibility raises interesting issues about the role of personal data on a public platform, and has important design implications for future interfaces.

Metaphors Matter

Our findings about different functional regions of social media, and the corresponding metaphors of performance, exhibition, and personal locker, lead us to revisit how we should design social media as an identity platform for both context-specific performance and long-term exhibition, for both others and self.

One can argue that Facebook actually does well compared to many other social media. It serves performance well through the newsfeed and exhibition fairly well through Timeline, and also provides some features for personal spaces, such as the privacy option "visible for me". Many other interfaces focus only on one region: Twitter and Google Buzz, for instance, provide functionality mainly supporting performance; Pinterest is largely about exhibition; and Flickr and Path are largely tools for archiving. All of these could, in principle, serve multiple goals: in Flickr, people can perform for those who follow their photo stream, and exhibit to at least some extent through the album mechanism. Likewise, Pinterest could, in principle, support collections of past data for both personal sensemaking and exhibition to others, although its normal use as an exhibit of one's tastes and desires is so strong that it may be hard for these other uses to gain footing.

There are arguments to be made for the use of separate platforms for separate purposes and for not trying to be "all things to all people." But, in practice, people do use social

media for multiple purposes, and designs should respect that. Inviting people to upload their personal histories to Timeline may align with Mark Zuckerberg's beliefs in the value of "radical transparency." But the Timeline metaphor and its affordances that favor public exhibition are a bad match for most people's goals in archiving personal data. Careful attention to how people might wish to use the data that social media increasingly capture will lead to designs that better serve people's needs and respect their wishes.

One way to mitigate these tensions and improve social media platforms' ability to support multiple regions is to think about how system curation could become "smarter" or "more considerate" when managing one's digital traces. The way temporality mediates content between public and personal regions raises the possibility of designing a "two-sided" system, where content that falls out of the public attention will be automatically moved into a private space designed for personal archival. Instead of being implicitly private, these data would become explicitly personal. There is much value in systems that forget after a while, and even in systems that help us in our own forgetting [23]. However, our users' re-visitation of old content and regret around decisions to delete it suggest that actual deletion of data is not to be taken lightly.

Another, more extended metaphor, is inspired by work from Miller et al. on the relationship between people's identity and personally owned artifacts [24]. We wonder if drawing on people's practices for displaying physical artifacts around their houses might be a useful tool for thinking about social media design, somewhat like Odom et al.'s exploration of how people manage virtual processions relative to the ways that they arrange physical space [28].

If we conceptualize one's Facebook data as a collection of artifacts displayed in one's house, physical places where people traditionally display artifacts could have strong connotations for supporting the multiple regions. Pictures on the wall might function to display one's long-term identity exhibition, not unlike the way that one's basic information on Facebook is always explicitly displayed and easy to access. Grouped pictures in frames might serve to organize specific facets of people's identity or highlight meaningful groups of friends or family. Stickers or drawings on the refrigerator might represent items that are temporarily important but are replaced or augmented with new content over time, not unlike how one's profile photos and cover photos are currently used. Pictures put on the bedroom table might have significant personal meanings that only trusted others can access, somewhat like "implicitly private" Facebook content. A diary locked in a drawer might be strictly personal and private, such as the personal archival space that some of our participants expressed interest in having as a part of the platform. Then, the system might provide tools that help people move, arrange, and tell stories about data among these display spaces.

Note that we are not arguing that Facebook should be, literally, a house or a neighborhood or some other physical space, although systems like Second Life and LambdaMOO have had some success using these metaphors literally. We are, however, proposing that metaphors that call attention to the multiplicity of regions, transitions, and curation needs of social media users might have real value above and beyond the relatively simple, time-based metaphors that are commonly used in social media systems.

CONCLUSION

Our study applied both Goffman's [7] theatrical and Hogan's [11] exhibition metaphor for examining the actions that users take for managing social media data over time. Our analysis highlighted spatial and temporal tensions brought on by the persistence of data, extending previous literature on self-presentation, which mainly focuses on the decision-making process in the moment. The need for creating digital content for performance purposes might contradict one's intended long-term image as time goes by, as both goals and audiences change. It is also important to note the sense of expiration for digital content on social media, that is, that recent content plays a role as the focus of attention for purposeful self-presentation, and digital content created in the past becomes "invisible" as new content accumulates.

As an extension to Hogan's exhibition approach, we also found that as social media data expire from public attention, they not only move to an exhibition region that affords presenting one's long-term image, but also gradually become part of a personal region, where social media data functions as a personal archive and repository for meaningful memories. Past interaction data has been commonly described as "implicitly private," where people feel strange accessing others' pasts and don't expect an audience for their own.

We also discovered an implicit negotiation between users and the system in terms of how personal data on social media platform should be "exhibited". Emphasizing users' role in curating their digital traces both extends the concept of curation in Hogan's theoretical model and allows us to rethink appropriate design metaphors for social media that nicely support users' needs and expectations.

Popular social media systems, such as Facebook, naturally afford the accumulation of user data over time. We hope that our findings about social media being a combination of different functional regions and our proposals of alternative metaphors for conceptualizing social media might inspire future designs to better accommodate the many functions, values, and faces of people using social media.

ACKNOWLEDGMENTS

This work was supported by NSF grant IIS 0845351.

REFERENCES

1. Armstrong, D., Gosling, J., Weinman, J., & Marteau, T. The place of inter-rater reliability in qualitative re-

- search: An empirical study. *Sociology* (1997), 31, 597-606.
2. boyd, d. Friendster and publicly articulated social networking. *Proc. CHI* (2004), 1279–1282.
 3. boyd, d. Why youth (heart) social network sites: The role of networked publics in teenage social life. In D. Buckingham (Ed.), *Youth, Identity, and Digital Media*. MIT Press, Cambridge, MA, 2007, 119–142.
 4. Cosley, D., Sosik, V.S., Schultz, J., Peesapati, S.T., & Lee, S. Experiences with designing tools for everyday reminiscing. *HCI* 27, 1–2 (2012), 175–198.
 5. Ellison, N., Heino, R., & Gibbs, J. Managing impressions online: Self-presentation processes in the online dating environment. *JCMC* 11, 2 (2006), Article 2.
 6. Ellison, N., Steinfield, C., & Lampe, C. Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media & Society* 13, 6 (2011), 873–892.
 7. Goffman, E. *The presentation of self in everyday life*. Anchor: New York, 1959.
 8. Golder, S., Wilkinson, D., & Huberman, B. Rhythms of social interaction: Messaging within a massive online network. *Proc. C&T* (2007), 41–66.
 9. Greengard, S. Digitally possessed. *Communications of the ACM* 55, 5 (2012), 14–16.
 10. Hangal, S., Lam, M., & Heer, J. MUSE: Reviving memories using email archives. *Proc. UIST* (2011), 75–84.
 11. Hogan, B. The presentation of self in the age of social media: Distinguishing performances and exhibitions online. *Bulletin of Science, Technology & Society* 30, 6 (2010), 377–386.
 12. Hull, G., Lipford, H.R., & Latulipe, C. Contextual gaps: Privacy issues on Facebook. *Ethics and Information Technology* 13, 4 (2011), 289–302.
 13. Joinson, A.N. Looking at, looking up or keeping up with people?: Motives and use of Facebook. *Proc. CHI* (2008), 1027–1036.
 14. Jones, W. *Keeping found things found: The study and practice of personal information management*. Morgan Kaufmann, Boston, 2008.
 15. Kamal, N., & Fels, S. Online social networks for personal informatics to promote positive health behavior. *Proc. WSM* (2010), 47–52.
 16. Krämer, N.C., & Winter, S. Impression management 2.0. The relationship of self-esteem, extraversion, self-efficacy, and self-presentation within social networking sites. *J. Media Psychology* 20, 3 (2008), 106–116.
 17. Lampe, C., Ellison, N.B., & Steinfield, C. Changes in Use and Perception of Facebook. *Proc. CSCW* (2008), 721–730.
 18. Leary, M.R. *Self Presentation – Impression Management and Interpersonal Behaviour*. Westview, Boulder, CO, USA, 1996.
 19. Lofland, J., Lofland, L. *Analyzing social settings: A guide to qualitative observation and analysis*. Wadsworth, Belmont, CA, 1994.
 20. Madejski, M., Johnson, M.L., & Bellovin, S.M. The failure of online social network privacy settings. *Columbia Research Report CUCS-010-11*, 2011.
 21. Marshall, C.C., & Shipman, F.M. Social media ownership: Using twitter as a window onto current attitudes and beliefs. *Proc. CHI* (2011), 1081–1090.
 22. Marwick, A.E., & boyd, d. I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society* 13, 1 (2011), 114–133.
 23. Mayer-Schonberger, V. *The Virtue of Forgetting in the Digital Age*. Princeton University Press, 2009.
 24. Miller, D., Jackson, P., Thrift, N., Holbrook, B., & Rowlands, M. *Shopping, place and identity*. Routledge, London, 1998.
 25. Munson, S., Lauterbach, D., Newman, M., & Resnick, P. Happier Together: Integrating a Wellness Application Into a Social Network Site. *Proc. Persuasive* (2010), 27–39.
 26. Nielsen, J. *Web usability*. New Riders, New York, 2000.
 27. Odom, W., Sellen, A., Harper, R., & Thereska, E. Lost in translation: Understanding the possession of digital things in the Cloud. *Proc. CHI* (2012), 781–790.
 28. Odom, W., Zimmerman, J., & Forlizzi, J. Teenagers and their virtual possessions: Design opportunities and issues. *Proc. CHI* (2011), 1491–1500.
 29. Peesapati, S.T., Schwanda, V., Schultz, J., Lepage, M., Jeong, S., & Cosley, D. Pensieve: Supporting everyday reminiscence. *Proc. CHI* (2010), 2027–2036.
 30. Petrelli, D., Whittaker, S., & Brockmeier, J. AutoTopography: What can physical mementos tell us about digital memories? *Proc. CHI* (2008), 53–62.
 31. Petrelli, D., & Whittaker, S. Family memories in the home: Contrasting physical and digital mementos. *Personal and Ubiquitous Computing* 14, 2 (2010), 153–169.
 32. Robinson, L. The cyberself: The self-ing project goes online, symbolic interaction in the digital age. *New Media & Society* 9, 1 (2007), 93–110.
 33. Sosik, V.S., Zhao, X., & Cosley, D. See friendship, sort of: How conversation and digital traces might support reflection on friendships. *Proc. CSCW* (2012), 1145–1154.
 34. Tufekci, Z. Grooming, gossip, Facebook and MySpace. *Information, Comm. & Society* 11, 4 (2008), 544–564.
 35. Wang, Y., Norcie, G., Komanduri, S., Acquisti, A., Leon, P.G., & Cranor, L.F. “I regretted the minute I pressed share”: A qualitative study of regrets on Facebook. *Proc. SOUPS* (2011), Article 10.
 36. Zhao, O.J., Ng, T., & Cosley, D. No forests without trees: Particulars and patterns in visualizing personal communication. *Proc. iConference* (2012), 25–32.
 37. Zhao, X., Sosik, V.S., & Cosley, D. It’s complicated: How romantic partners use Facebook. *Proc. CHI* (2012), 771–780.