

Proxy Users, Use By Proxy: Mapping Forms of Intermediary Interaction

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ABSTRACT

Within Human-Computer Interaction and Internet Studies there is a growing interest in non-users, which articulates the increasingly diverse modes of digital media engagement that slip between established categories of user/non-user, online/offline and self/other. In this paper we aim to build on these concerns and their disciplinary intersections to map emerging forms of computer interaction and social media participation that can be grouped together under the concept of *proxy users* – intermediaries that act on behalf of others. This preliminary mapping work, surveying a number of research projects and studies involving the authors, begins to trace the diversity of agents, roles, contexts, and motivations of proxy users.

Author Keywords

Proxy, user, non-user, internet, intermediary

ACM Classification Keywords

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

INTRODUCTION AND BACKGROUND

A proxy is defined as a person authorized to act on behalf of, or empowered to represent, another; applied in the context of law or politics it is typically understood as a delegated function. Yet, the term is also used more widely to designate a variety of agents that intermediate relations, such as proxy servers in computer science, proxy indicators in natural science, or proxy associations in vernacular expression. These wider uses of the term point to an expanse of proxy agents, both human and non-human, as well as forms of proxy representation, which are both authorized and involuntary.

We pick up on these multiple meanings and uses to develop the concept of ‘proxy users’, which refers to forms of intermediation where peoples’ engagement with digital technologies, representation on social media, or activities on the internet are mediated or undertaken by

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others. As we argue in this paper, proxy use can involve different kinds of agents, varied degrees of authorization, and multiple subjects of proxy intervention. We categorize these forms of proxy use as: *enabling*, *asserting*, and, *inhabiting*.

Considerations of proxy computer, internet and social media use intersects with a number of areas of scholarship, including research into forms of non-use, as well as research concerned with notions of the self and agency within digital networks. Historically, questions around not-using computers and the internet were often approached through the concept of a digital divide, and questions of access. Such divisions were largely located at a macro, societal scale, measured in terms of technology provision, and addressed as a problem of scarcity and disadvantage to be overcome. Such technology-centric approaches were amended by research that recognized the importance of the economic, political, and social contexts of technology access and use (e.g. Warschauer, 2003).

More recent attention, within both HCI and Internet Studies, has turned to the notable volume and variation of ‘non-use’ emerging in places of technology abundance. Satchell and Dourish (2009) note that the user has historically dominated HCI research, and whilst this is a largely imaginary and discursive category, it has had the unintended consequence of relegating non-users to the status of ‘potential’ users (Satchell and Dourish, 2009). In contrast, emerging research on non-use highlights a wide spectrum of individuals, who may actively resist or refuse technology use (Portwood-Stacer L, 2013; Wyatt, 2003), be occasional, but compelled or disinterested, users (Satchell and Dourish, 2009; Selwyn, 2006), or involve forms of departure or disconnection (Brubaker, Ananny and Crawford, 2014; Light and Cassidy, 2014).

Non-use, then, does not operate in a simple binary relation with use, but instead highlights more nuanced and cyclical relations of both engagement and disengagement. Forms of ‘non-use’ may be fleeting, partial, selective, and mutable; and they may be driven by provisional and situated constraints or by clearer social or political agendas and decisions. Yet, they signal a much more differentiated field defined by critical and discriminating approaches to relationships with digital technologies. Much of this nascent interest in non-use shifts from macro or structural perspectives to emphasize modes of individual conduct, reasoning, or agency, often through responses to the politics of technological imperatives for participation or diffusionist models of

staggered yet inevitable technology adoption. This individualized approach to non-use, however, often disregards the networks and contexts of sociotechnical relations that operate to enable or constrain modes of interaction (Nansen et al., 2013)

We build on this agenda, based on a number of studies that identify a significant role played by intermediaries, or what we term proxy users in the contexts of internet use and non-use. These proxy users operate between macro-social and micro-individual scales, and between forces of exclusion and resistance, through a range of more meso and relational arrangements.

RESEARCH PROJECTS AND METHODS

This paper draws on data and findings across a number of research projects and studies exploring the situated contexts of using digital media in relation to domestic environments and family life, young children's emerging uses of mobile media, pets on social media, and the digital mediation of death and commemoration. Whilst proxy use was not the central focus of these studies multiple forms of proxy use emerged, alerting us to the prominence, diversity, and significance of this phenomenon. The research projects include:

A study of the changing use of digital media and communication technologies in the home associated with broadband connectivity. The methodological approach involved multiple strands of ethnographic enquiry with 22 households (Kennedy et al., 2015).

A study investigating babies, toddlers, and young children's emerging mobile and interactive media use in domestic settings, which to date has undertaken household interviews, tours and observations with 19 families, and 31 pre-school aged children (Nansen 2015).

A constructivist grounded theory exploration of how social media platforms (such as Facebook and Instagram) are affecting the relationship between pets and their owners.

A study of the digital mediation of death and commemoration based upon interviews with key informants from the US, Australian and UK funeral industry, and a series of ethnographically informed case studies of commemorative practices and social media (Meese et al. 2015).

EXAMINING INSTANCES OF PROXY USERS

The following discussion provides examples of proxy use from the studies described above, before gesturing towards the wider terrain of agents, roles, contexts, and motivations that are situated within analyses of proxy use.

Household proxy users

In the study of domestic technology use, we found that proxy use commonly took the form of one member of the household *enabling* others to use digital media. For example, by delegating someone else to download a movie or game. Enabling proxy relationships were typically enacted in these settings and situations in response to limitations in digital literacy and drew on the knowledge or expertise of other household members to undertake a specific activity, such as purchase new

hardware, install an app or download a movie torrent. As one interviewee stated, "*Michael does most of the downloading, and the bigger stuff so I don't do any of that*". Enabling proxy relationships also occurred more generally in terms of the reliance of some householders on the labour of others to maintain the household network of technologies and systems – something previously discussed in relation to digital housekeeping (Kennedy et al., 2015; Tolmie, et al., 2007). In an example of enabling proxy use of this kind, one participant described how he spent hours researching media fileservers on behalf of the household:

Riley: The server was a big deal. A lot of hours in [researching] that one. I wanted to make sure I got the right one.

Ashley: I'm just not that fussed.

In our research we found that *enabling* forms of household proxy technology use were typically delegated to others as a consequence of uneven distributions of technical competency, and as a consequence of either tacit or explicit negotiation. Furthermore, this *enabling* proxy use tended to instil and perpetuate differences in digital literacy and expertise.

Infant proxy users

In our research with young children we found that parents played a significant *enabling* role by making mobile media available to babies and toddlers by unlocking a device, preparing software, or loading an application, which was then handed over to children:

...she can do it, once I've unlocked...even, even with iView, once I'm on iView she can pick her own show and then go to the channel she wants to go to.

These forms of proxy use sometimes revolved around the pragmatics of keeping a young child engaged whilst travelling for example, but were more frequently motivated by sharing digital content, especially family photographs, and in facilitating mediated communication with relatives abroad:

We quite often just have them [on Skype]...have the computers in there while we're having dinner...the laptop will be there, opened up at one end of the table with the family here and there will be my sister having breakfast with her family in Ireland...

This *enabling* role was extended by parents into online spaces through forms of *asserting* young children's online presence – something we, and others, have discussed in relation to content posted on their behalf within social media platforms (e.g. Nansen and Jayemanne, forthcoming; Kumar & Schoenebeck, 2015).

Whilst these forms of proxy use may *enable* or *assert* babies engagement with mobile devices and internet applications, they do not necessarily construct young children as passive recipients of parents' desires to make content available or, to establish online communication or presence. Instead, the research revealed that young children, including infants, were often active participants in these processes, pushing parents for access to devices, digital content, and mediated communication.

We had my son's birthday and there were some photos, some footage of us singing happy birthday and the little one just wants to watch it over and over again. She thinks it's fantastic watching herself.

Further, young children's media conduct was both empowered and governed by software applications that acted as proxies for content selection. For example, YouTube's algorithmic functions for sorting, recommending and autoplay operated as an *enabling* proxy agency for infants by automatically delivering an ongoing stream of content.

Animal proxy users

As with infant proxies, our study of social media and pets uncovered *asserting* proxy-use on the photo-sharing platform Instagram where a large number of accounts 'belong' to specific animals, for example: @charlie_the_goldenretriever, @echo_the_bordercollie.

For animal proxy-users in these spaces, this practice was part of an attempt to limit the impact of their enthusiasm for their pets on their local social network. Rather than inundate their own Instagram feed with photos of their pets, they created a separate account to share photos. Such proxy-use overcomes the limitations of Instagram, where you see *all* the photos shared by the users you try to follow. Proxy-use provides followers with more choice about what photos they want to view, freeing up users to share photos of their pets more frequently.

This proxy-use, or 'petworking' (Hutchinson, 2014), has bred a thriving community of pet-owners on Instagram, converged around '#hashtags' for each specific breed (e.g., #bordercollie), where owners share advice and knowledge on dog ownership and training. A widespread vernacular practice (Meese et al. 2015) in these spaces is to post *as* the dog owning the account, in both captions and comments on other proxy-accounts. For example, a photo of a dog holding a toy in its mouth with the caption, "*I brought my toy to you so we can play, but I don't want you to have it*". Increasingly, however, we are observing the commercialisation of these proxy users, where pets with a large number of followers (5,000+) become 'brand ambassadors' for pet products and services, fundamentally transforming the relationship between pets and their owners from *companion* to *employee*.

Posthumous proxy users

We have also found that forms of online presence persist after death through the proxy intervention of a range of people, platforms and applications that *inhabit* the identity of the deceased.

When someone dies, friends and family have options for the deceased's social media profile. Policies vary from provider to provider, but Facebook is the dominant platform where these issues are most salient. Facebook policies on how to manage the profiles of the dead have shifted over time, and currently recommend that the next of kin either delete the account of the deceased, 'memorialize' the profile, or nominate a 'legacy contact', each of which significantly constrains the usual

affordances of the profile ('Memorialized Accounts' 2015).

There are, however, two alternative possibilities, neither supported by Facebook. One alternative is to leave the profile exactly as is by not reporting the death, in which case the profile will continue to be open to friends and their posts, and to all automated prompts, 'likes', advertising and so on, though of course the deceased profile owner does not post; or, a proxy for the deceased may access and use the dead user's profile. In such cases posts may be made on behalf of the dead and, insomuch as posting to social media can be described as living, the digital persona maintains a social life after death.

A more notable example of this practice is the continued presence of popular film critic Roger Ebert on Twitter, over a year after his death. A prolific film critic and writer, Roger Ebert suffered from neck and face cancer late in life, which left him unable to talk. However, he was still able to write and he subsequently built a large following on Twitter (Ebert, 2010). Since his death in April 2013 his wife Chaz Ebert has *inhabited* his identity and continues to operate the account on her husband's behalf, with his explicit authority (Kleenman, 2014).

The act of controlling the account of a deceased person is not just limited to celebrities. In Auckland, for example, a case was published concerning Greg Murphy, who *inhabited* and continued to regularly update his wife's Facebook profile after her death (Russell, 2012). Her posthumous presence was assumed rather than delegated by her husband, who notes that some 'friends were shocked when Natalie appeared in their newsfeed but most have greeted it with positivity... [though] the process is not without some strange encounters'. He ends by acknowledging that there is a 'darker side', and recalls that some men have attempted to "hit on Natalie" unaware that while her profile is active, she is actually dead (Russell, 2012). These posthumous profiles rely upon the proxy intermediation of living friends or relatives to remain active, though are also entangled with automated features that serve as proxies for social action within the platform.

Such posthumous proxy interaction also occurs through dedicated applications allowing digital messaging to be automated and ongoing. *If I Die*, for example, allows a client to create video or text messages that will only be posted to social media when a nominated trustee lets the service know that the client is no longer alive. *Deathswitch* and *finalthoughts.com* provide similar proxy services. Such services resemble earlier forms of mediated messages from the dead; final messages to loved ones communicated through letters, and more recently, video. However, newer algorithmic forms of proxy *inhabitation*, such as *LivesOn* and *That Can Be My Next Tweet*, utilize software to analyze a person's Twitter feed, 'learning' about likes, tastes and syntax, in order to continue posting tweets on their behalf, even after death. *LivesOn* uses the tongue-in-cheek slogan 'When your heart stops beating, you'll keep tweeting', while more speculative services such as Intellitar's now-defunct *Virtual Eternity* or the more recent start-up *Eterni.me* are

much more ambitious and seek to facilitate the creation of proxy avatars which will operate autonomously across all social network sites on behalf of the dead.

With the dead continuing to act and participate in our social lives through these varied forms of proxy intervention, such proxy users resemble what Brubaker and Vertesi (2010) have described as examples of ‘extreme users’, rather than non-users or former users.

MAPPING THE TERRAIN OF PROXY USERS

The examples discussed in this preliminary mapping work begin to trace the diversity of agents, roles, contexts, and motivations of proxy users who operate as intermediaries that work as *enabling*, *assuming* and/or *inhabiting* agencies. These are more suggestive than exhaustive, but begin to prise open the diversity of practices and significance of the concept of proxy users.

It is evident that there is a growing diversity of agents that act as proxies for others in computer interaction and social media use. These proxies range from: family members and householders who assist other people to use digital media; non-human others, such as software platforms and algorithms that mediate and automate internet activity as a proxy for others; to proxies that play out the identity and use the voice of others in social media engagements. These forms of proxy use spread across a spectrum from specifically requested and authorised, through automated, to unauthorized appropriations.

The focal-subjects of proxies also signal a diversity of reasons for desiring or receiving such intermediation. This spreads from those who lack agency, such as householders who lack appropriate digital competency or motivation, to infants or animals incapable of being digitally independent, and the deceased who lack digital agency for obvious reasons.

As an alternative to this ‘deficit model’, another category of proxy uses revolves around those who have excessive power, and so require the deliberate employment of assistants to help manage their online profiles and marketing communication. Whether written by ghost impersonators in the voice of the celebrity or by assistants on their behalf, celebrities hire proxies for a variety of reasons, including lack of time or interest, and contractual arrangements (Marwick and boyd, 2011).

Another domain where proxies are deployed for strategic purposes is in the contexts of public relations management for politicians, corporations and executives:

[...] public relations practitioners attempt to create the appearance of grassroots support [...] This strategy often involves paying others to engage in the communication. (Gallicono, 2013)

Here, the role of proxy use centres on monitoring and managing social media accounts to support, shape and steer a digital profile and its networked publics and discourse. Forms of so-called sock-puppeting and astro-turfing extend to larger entities such as State governments and Chinese and Russian ‘troll army’ agencies that monitor and intervene in social media conversations using fake names to shape the debate.

Imposter proxies are not limited to corporate or state actors, but also include fake personal accounts and trolling within social media networks. Journalist and filmmaker Jon Ronson (2015), for example, wrote about a personal experience where a Twitterbot had been created in his name, and *inhabiting* his identity began to generate tweets on his behalf. He confronted the academics that programmed the bot, which he accused of malicious proxy intervention –they responded by asserting it was an exercise in raising public awareness about the generalized agency of algorithms in shaping contemporary cultural and economic life. Karppi (2013), describes a similarly playful, yet ambiguous proxy agent in the form of ‘doppelganger trolls’ who look for people with the same name on Facebook, imitate their profile picture then send them a friend request, mostly for the lulz. These sorts of intermediation do not so much act on behalf of another but deliberately appropriate their online presence or identity and in doing so blur the boundaries between self and other.

CONCLUSION

This paper draws attention to forms of proxy use that stand between use and non-use, and draws attention to the variation in subjects of proxy intervention. In our fieldwork, we observed *enabling* proxies delegated to act on others’ behalf as a consequence of uneven distributions of technical competency. We also observed proxy relationships that involved one person or agent *asserting* the identity of another by speaking on their behalf of, or in their name, on social media. And we observed multiple instances of proxies that *inhabited* the identity of another online, based on competing motivations.

From this proxy mapping, we note that proxy users do not arise as a consequence of individual agency, but instead emerge in relation to the people, practices and technical population (digital infrastructures, devices, services and software) that configure agency in digital networks. There are many other relationships in the nexus between use and non-use that we have observed, but not reported on in this paper, for example, vicarious use, spectatorship and audience, and peripheral engagement. There are also other instances of intermediation, which have not been detailed here, but clearly require inclusion in further expanded analysis. These include machine proxies such as virtual assistant and software proxies, intimate proxies used in hook-up apps or partner profiles on social media, and other enabling proxies acting on behalf of others who lack independent agency – such as the disabled (Alper, 2014), or inanimate things (Barthel et al, 2013). Future work will also explore the motivations of proxy users, and the design implications of these forms of proxy use.

In this paper we have chosen to focus on proxy relationships, where one person or agent acts on behalf of another. In this way the paper contributes to research into the spaces between use and non-use, as well as issues around identity management online, by analysing the technological and cultural contexts of proxy use in which individuals mediated lives are increasingly entangled.

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