Addressing Constraints: Multiple Usernames, Task Spillage and Notions of Identity

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Abstract

In this work in progress report, we present preliminary results from an interview study on people's use of email addresses and instant messenger usernames. Based on these interview findings, we speculate that many people use multiple identifiers reactively and prosaically, rather than simply proactively and strategically. This has implications for understanding the scope of previous studies; for developing cross-platform methodologies for analysis of people's practices; for understanding identifier selection; and for design of communication tools and protocols. We believe that a focus on "identity", which we characterize to be a set of strategic and coherent practices for self-presentation/protection, has led to an under-representation of reactive and prosaic practices of identifier selection that can result from organizational policy, technological implementations, and social and task information flow management.

Keywords

Email, instant messaging, task, collaboration, identity, usernames, identifier, interview study

ACM Classification Keywords

H5.2. Information interfaces and presentation

Introduction

Email is the dominant form of online communication. According to the Pew Internet & American Life Project, 93% of Internet users have sent or received email [8]. Over the past 20 years there has been much work published at CHI and CSCW on the ways that people use email to manage their tasks and their work and social connections [2][3][6][9][15].

Characterizing email use

Investigations into email use over a number of years have looked at email overload and people's filing strategies [4][6][15]; a more recent study demonstrates that little has changed over the years despite the increased use of other communication tools like IM [6][9]. Studies have examined users' strategies of email workflow including action, email and task management, sorting, and triage. A number of extensive surveys present characterizations of: email and workflow; mailbox size(s) and management strategies; characteristics of messages including type of content and perceived importance; and assessments of subjective feelings of overload [2][3][5].

However, most research has considered a single inbox and address, and even where multiple inboxes are considered, little focus has been put on the complex ways individuals use multiple identifiers in online communication aside from discussions of intentional identity/profile maintenance. This issue was noted in the deployment of the ContactMap system – a system that provides visualization of people's contact information [14]. The authors note they had problems "because many of our participants used several communication modes with the same contact and thus needed access to multiple addresses for that person."

However, no reference was made regarding users of ContactMap having multiple addresses or multiple inboxes – the work focused on groupings of contacts. Thus, even where there is recognition that people have multiple email addresses, little discussion has ensued as to people's motivations – for *why or how* these different addresses are used.

Multiple email addresses and communication ecologies

The methodological choice to study a single inbox, often a workplace one, may be expedient (easy access, easier to gather and analyze data), but it has consequences. First, the assumption that we can measure the person's email and task management by looking at their behavior in a single context may not hold. Research surveys and interviews with students [1][8] and professionals [4][7], and market research data all indicate that the use of multiple addresses is common, and that at least half of all email users maintain multiple email addresses [7][9]. Reasons cited often refer to role separation [1]. Second, a focus on the workplace inbox may orient overly toward factors related to efficiency, effectiveness, and feelings of overwork. These factors are clearly important, but may apply less in recreational settings.

In addition, email should not be singled out. While email is still the broadest and most common type of online messaging, the use of instant messaging (IM) is growing quickly. Email and instant messaging are rapidly being combined and integrated in both the client and server infrastructure. Further, the short message service (SMS) for text messaging on mobile phones, is now the third most common type of online messaging in the US and second globally. Mobile operating

systems developers are rapidly integrating multiple types of messaging such as email, instant messaging, SMS and voicemail on handsets. For example, the default message view on RIM Blackberries intermixes email, instant messages, and text messages. SMS and voicemail messages can now be read out as speech.

Our work: Everyday identifiers

In our research we are investigating individuals' everyday use of multiple electronic mail addresses and instant messaging usernames in work and recreational contexts. *First*, we believe that we cannot extrapolate from one inbox to a general practice model of internet-based communication. Research must address the person's *landscape* or *ecology* of communication means and methods of management, in recreational *as well as* work contexts. Our research asks: What are practices of multiple identifier use? *Second*, we ask: Where does the drive for multiple identifiers come from? Is multiple identifier use is proactive and strategic (planned by the individual to achieve an intended content segmentation and integration or self-presentation result), or reactive and prosaic (created by the individual as a workaround for externally driven circumstances)? Does work policy, technological limitation, or individual preference account more for multiple identifier use? And to what degree do these factors contribute – or not? *Third,* we ask: What are the costs? Although often the technical cost of creating new online identifiers is low, behavioral economists suggest that there is a high switching cost of moving to new online identifiers [11]. Even if switching is only partial, there are clearly costs involved in managing multiple inboxes, to/from addresses, and IM usernames that go along with multiple identifiers. Thus we believe that a qualitative understanding of people's adding, switching and maintenance behaviors

is important– their motivations to *add new identifiers* and/or *make switches* and their reactions to *maintaining multiple identifiers*.

Interview study rationale and method

We carried out 30 preliminary background interviews that indicated the work policies around the separation of work/personal email was a potential initial driver for the segmentation of identifiers. With more focus in organizations on keeping systems "clean" of personal data, and with increases in online communication through mobile and desktop devices, if current technological addressing practices do not change significantly, we can assume that the proliferation of identifiers will continue. Therefore, our current interview study draws interviewees from two work populations: one regulated with substantial constraint imposed on communication in the workplace (a financial institution) and one unregulated with minimal constraints imposed (a design company). We have to date conducted 25 of 50 semi-structured, 60-minute interviews with participants in our regulated population (see side-bar for details on interviewees).

Our analyses are following a grounded methodology: quotes are selected and clustered into categories according to expressed rationale and intent for creating different identifiers. Our clusters summarize people's main communication and self-representation concerns, and their perspectives on identifier selection/use as part of resolving these concerns and accomplishing their communicative intentions.

Preliminary results

In accord with previous results, we found that our interviewees have a number of identifiers. The number

ranges from 2 identifiers to 12; mode is 4 with mean 5.25. Only one person had a single email address (and also had one IM username). Typically interviewees had one work email and one work IM identifier; the rest were all "personal" identifiers. The mean number of years using email was 13.9 years; mean years using IM was 6.9. All our interviewees had personal email addresses before joining the company, and anticipated that work email would not persist beyond the current work context (and no email forwarding facility was offered). A concern for privacy was explained in terms of industry and federal policies on content monitoring.

We generated the following clusters for why people create new email addresses and/or IM usernames (a few selected quotes are shown in the sidebar tables on this page and the next). Our clusters go from most often expressed (1), to least often expressed (4).

(1) Separating business and personal content; social contact management

Reasons given: personal desire to keep business and personal content separate; need to be in compliance with organizational policy; new job generates more identifiers; privacy "I don't want my personal business available to work colleagues". People also articulated a desire for "permanence" – the creation of personally controlled and therefore "permanent" identifiers and contacts lists.

These comments suggested people may have two sets of identifiers: one for work and one, a permanent one, for "home". This was not the case, most people had many "personal" identifiers - related to the following three issues, in order of their reported significance:

(2) Interruptions, task spillage and content contamination.
People manage interruptions and workflow through partitioned contact/communication streams – generating new identifiers to create context and content streams.

Reasons articulated were: maintaining social context, avoiding task/setting spillage: "I don't want to deal with work when I am at home with my family", "I can't concentrate if my friends are mailing me at work all the time". However, in addition, several interviewees reported generating personal email addresses "on the fly" to manage their personal information flow. Identifiers originally intended to partition groups or tasks gets "contaminated" and is no longer a useful partition – "so I created another one". This results in maintenance of the new set as well as of the "legacy set" – "I don't want to get rid of it altogether as I still get stuff there". Finally, and perhaps most often raised, "spam" was a major driver for "dumping an address" - and creating a new one. On investigation, we found "spam", however, for some people is mail from "anyone I don't want to hear from".

(3) Technical/technology and usability issues

Reasons given were: multiple applications (work mail, webmail (often multiple services, IM, cell phone number and ISP email address); creation of a more memorable/meaningful address (removal of numbers, shorten length); access control (web mail, SMTP, relay, VPN); move to new ISP to get better price or service (e.g., increased speed); response to forgotten username/password; move to new ISP or web mail as a result of new features (better storage, better spam protection, better mail presentation, better integration with calendaring and contacts). Recent changes in

Interview Quotes

"… I didn't like the name that I picked when it was my first e-mail."

"It was a little bit too cutesy, it had something to do with honey bunnies; and it wasn't the sort of image I wanted to project.

"..but it was really long, I do remember it was really long, and it had dashes in it. So what I ended up doing was changing to a shorter one."

"After that one I got a Yahoo account just because the Hotmail there was too much spam and too much junk in it and it was too big to look through all the time"

" I knew that my college one wasn't forever, so I wanted something more permanent after I graduated."

" I didn't like my college email address because it had a number in it, because I couldn't come up with a permutation of my name that was not already taken."

spam-related ISP restrictions has also affected people's practices.

(4) Identity/naming concerns

Reasons given were: status and prestige (moving from previous "immature" or "unprofessional" identifiers; marriage/divorce. This was the greatest expression of creating a new identity we encountered.

Discussion

While a discussion is perhaps premature, we feel a number of issues are arising from the data. Our interviews confirm that corporate policy and legal statutes are drivers for people maintaining multiple email addresses. Email relay restrictions often force users to employ multiple email accounts or enter complicated configurations to send email when they have multiple addresses. However, we found the weight given to these corporate drivers to be significantly less than anticipated within this population.

Many people expressed they felt driven to create personal email idenitfiers because they could not rely on "work email being my email" (i.e., work contact information goes away when I leave this job); interviewees mentioned *permanence* to be a driver in their creation of new identifiers, corporate policy entails leaving email behind when changing jobs. This reflected people's desire to avoid the cost switching in future. People stated they moved to the Gmail service as the namespace was not saturated to "get their names" rather than for the search; this is something "someone could keep for a long time since it is not tied to any other institution". We found a factor in generating new email addresses is spam, although people's definition of "spam" varies widely. Often people simply mean any

email they did not want, including email from coworkers and known people in addition to "unsolicited commercial email." A useful distinction is "trusted" and untrusted". Trusted is the category people have of individuals who are not likely to send them unwanted email. Some people categorize people as known or unknown, and when /intentions are unknown another address is given.

Summary

The world of assigning and selecting identifiers is highly dynamic, shaped by current personal context, technical constraints, as well as institutional and legislative reasoning. In this work in progress report we have presented our preliminary analyses from the first of our two-part interview study of email and IM identifier use in regulated and unregulated organizational settings.

We were initially motivated to conduct this research in order move beyond a model of practice extrapolated from use of a single (usually work) inbox, to identify practices around the broader landscape of communication practices including identifier selection and use. However, we were surprised to discover *how many identifiers and how many inboxes and buddy lists are actively in use by our interviewees.* The data support multiple reasons for people's use of multiple email and IM identifiers –institutional motivations do drive establishment of multiple identifiers, but factors driving multiple identifier use are far more prevalent in people's personal, home lives. Much of the literature in this area has focused on use of multiple identifiers for intentional persona, reputation or identity management. While this kind of playful and strategic performance is clearly of great import, our interviewees do not report they are managing their online *personae*,

but report being "forced" to create multiple identifiers to manage their social interactions and/or tasks; this is definitely work and not play. Personae projection was the least important of all motivations reported. Interviewees so far are not being strategic about identity projection, but rather about everyday task and people management. They report being reactive to organizational and technical forces; they'd prefer a better solution. Finally, there is a tension between permanence and migrations between identifiers as part of their information and social management.

Our next steps are to complete the second round of interviews in an unregulated work setting. Through analyses we will be further outlining a taxonomy of motivational factors for multiple identifiers. This will give further insight into the benefits and limitations of current identity management software and services. Our ultimate plan is elaborate a socio-technical design space for identifier use that offers a more nuanced service than current applications and services allow.

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