Identity Management:
Multiple Presentations of Self in Facebook

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ABSTRACT

As the use of social networking websites becomes increasingly common, the types of social relationships managed on these sites are becoming more numerous and diverse. This research seeks to gain an understanding of the issues related to managing different social networks through one system, in particular looking at how users of these systems present themselves when they are using one site to keep in contact with both their past social groups from school and their current social connections in the workplace. To do this, we examined online profile pages and interviewed employees at a large software development company who frequently use the website Facebook, a site primarily used by college students and young graduates transitioning into the work force. The outcome of this initial case study is a framework for understanding how users manage self-presentation while maintaining social relationships in heterogeneous networks.

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

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1. INTRODUCTION

In recent years there has been a proliferation of social networking websites available on the internet for maintaining friends and colleagues. The most popular include Friendster, MySpace, Facebook and LinkedIn. These sites allow for users to generate lists of individuals they know and use the sites to share messages, photos, and other media with each other.

When each of these sites launched, it tailored its content and user experience to a particular audience: towards teenagers on MySpace, college students on Facebook, and high-tech professionals on LinkedIn. Yet as these sites have expanded and generated broader appeal, and as the users of these sites have transitioned between life stages and expanded their number of social connections, these sites are now assisting users in maintaining numerous social networks and diverse social relationships. A particular aspect of this issue we are interested in is when individuals transition from college into the workforce and expand their offline social circles to include a broader range of people. We are interested in answering the question of how these users continue to use social networking tools to support their diverse set of friends on sites that were originally designed for a single type of social network.

The site Facebook is very popular amongst college-aged students – over 80% of students at US universities have registered profile pages [1, 3]. As these Facebook users have graduated from college and joined companies as full-time employees, they continue to use Facebook on a regular basis. As has been demonstrated with college students using the site to keep in touch with current college friends and past high school acquaintances [4], we suspect that graduated students use the site to maintain social connections with current coworkers and past college friends. As evidence to support this, as of May 2007, there were over 14,000 Facebook users who identified themselves as employees at our company, IBM. By registering as part of the IBM network, these users are able to view the profiles of other registered employees, and they are making their profile pages visible to other employees.

When a user moves from one network to another, in this case from a college network to a workplace network, and continues to use a social networking site for maintaining relationships, does his/her self-presentation on the site change? We hypothesize that as individuals move away from their college social networks and into the new social environment of the workplace, they will evolve their use of the Facebook website to keep in touch with college friends and maintain more frequent contact with their workplace and geographically nearby friends.

To begin to answer this question, we conducted an initial survey of Facebook profile pages of our company employees and interviewed several frequent users of Facebook to gain a better understanding of how they balance maintaining relationships and impression management. The outcome of our initial inquiry is a framework for understanding the types of behaviors exhibited by these users in transition. This framework provides a starting point for considering how social network sites that support maintaining heterogeneous connections can offer a range of options for more effective impression management. We conclude with design implications for builders of social network tools that support bridging across multiple, heterogeneous social communities.

2. SURVEY OF CORPORATE FACEBOOK USERS

We looked at 68 Facebook profiles of users within our company's network and examined their profile information to understand how these users balance the presentation of themselves as professionals versus non-professionals. In selecting these profiles, we used Facebook's feature of browsing a chosen network to randomly view profiles. The demographics of the users are summarized in Table 1 below. The average user in this sample was 28 years old; 57% of the users live and work inside the US; 73% of our sample was male; on average, users belonged to 2.1 networks, have 5 friends within the company and 120 friends in total.

Table 1. General characteristics of users sampled (N=68).

	Average (Median)	Range
Age (years)	28 (26)	20 – 40
Years at company	3.6 (1.75)	1mo – 13yrs
Avg. # networks (communities)	2.1 (2)	1 – 4
Number of company friends	4.9 (1)	0 – 49
Total number of friends	120 (43)	0 – 693
% company friends	11%	0 – 100%
Location	30 inside US, 23 outside US	
Gender	73% male, 27% female	

The range in the numbers of friends at the company and number of total friends is very high – in fact, across these profiles we found a great amount of individual variation in usage and network size. These variations led us to segment the users into three distinct behavioral types. To segment the users, we examined the profile pages focusing on features that showed considerable variability: the number of friends, both in total and inside the company; the presence of personal information about hobbies and interests; and the presence of information about the person's job, including job title, job description, and start date.

The profiles appear to cluster into three distinct groups, which we have labeled "*Reliving the College Days*," "*Dressed to Impress*," and "*Living in the Business World*." The largest group is the *College Days* group. This group is defined by users belonging to a higher number of school networks and having fewer connections in their corporate network. As can be seen in Table 2, this group is more likely to have many friends, have few company friends, and belong to many Facebook interest groups. This user type is more likely to list a job title than the other types, but is less likely to list a job description or start date than the *Dressed to Impress* group. Overall, these are the youngest group of users (average age 25 years), and they appear to have started using Facebook during their college years. They have continued to use Facebook since joining the company to maintain contacts with their college friends, and have not transitioned their use to the corporate environment.

The second user type we have labeled *Dressed to Impress.* This cluster is defined by having a greater number of corporate members in an individual's social network. Compared to the *College Days*, the *Dressed to Impress* users have many fewer friends on the site, belong to fewer networks and have joined fewer interest groups. This group is the most likely to have provided a job description and a job start date on their profile page. We view these users as active on Facebook, using it to maintain relationships with both friends from school in the past and friends within the working environment. As many of these individuals appear to have joined Facebook after their college years, this group is markedly older (36 years) than the *College Days* group.

The final group we have identified we have labeled as *Living in the Business World*. The Facebook profiles for this group are quite limited and many have been created recently. What most distinguishes this group from the others is that many of these users are members of their company's network and no others. This may indicate they joined Facebook to investigate and be part of an online community with their co-workers. They are characterized by their few numbers of friends, their membership in only the company's network, not any school networks, and the lack of profile information provided.

Table 2. Work-related characteristics for three segments.

Average (median)	*Reliving the College Days* N=38	*Dressed to Impress* N=14	*Living in the Business World* N=16
Num friends	200 (167)	39 (41)	1.7 (1)
Num company friends	4.1 (1)	12.3 (8.5)	.2 (0)
Num networks	2.6 (3)	1.9 (2)	1.1 (1)
Employer job title	77%	64%	25%
Job description	21%	31%	13%
Job start date	59%	86%	6%
Num groups joined	17 (12)	3.5 (2)	-
Job-related groups	.2	.3	-
Age	25 (24)	36 (34)	28 (26)

2.1 Managing Personal Identity

As the user composition of Facebook becomes more diverse, it will become more challenging for individuals to manage their personal identity within a website originally designed for the college years, but increasingly open to the post-college and professional years. Within the structure of our three population segments, we believe the *Reliving the College Days* individuals are not managing their personal identity for a corporate environment, while the *Dressed to Impress* and *Living in the Business World* users are managing their self-presentation to some extent, indicating they are aware that the viewers of their profiles are both professional colleagues and old friends.

The members of the *College Days* group described above appear to be carrying over the identity they crafted during the early use of Facebook on university campuses. The personal information disclosed in profiles is full of hobbies, quotes, favorite books and activities (e.g., college fraternity/sorority or athletics). Members of the *College Days* group represent themselves in their main profile photos with quite playful and varied images. In our survey of 38, we saw images of motorcycles and cars (3), images with friends and family members (8), images of movie/television

characters (2), pets (1) dancing (2) and a piece of computer hardware (1).

The personal status messages and wall postings are typically informal as well. Examples of status messages, which are authored by Facebook users and intended to show timely status of the current activity, are: 1) "*is ready to party like a rockstar in the A!!!!!*!, 2) *is asking people to pls pls sponsor her even just a little on www.justgiving.com* and 3) *is headed to Michigan!!* The interest groups that this user segment join include political groups, social clubs, friend (and insider joke) groups, religious organizations and sexual orientation groups.

The clues about online identity for the *College Days* group are fairly typical for many social network sites. Of interest is the emergence of some professional or work identity within the profiles of this group. As shown in Table 2, many members of this group have "friended" people in their corporate network and have provide some job-related information (title, description or start date) in their profile. A small number (6) also provide their corporate email address within their profile and a small number are part of job-related groups (often related to internships or a local corporate group). We believe that these users post information about their job because they want their non-work friends to know what they are doing with their lives, in contrast with a professional networker who might want to use a social networking site to keep in touch with current colleagues. The very limited discussion of work on their profiles is with outsiders. For example, someone may post on the user's wall asking how the job at is going or offering congratulations on a new job assignment.

The second group of Facebook users, the *Dressed to Impressed* group, is more conservative and professional in their use of Facebook. Eight (of 14) members of this group provided no information in the "personal" section of the Facebook profile, which typically includes preferences for music, books, and movies. On the other hand 12 of 14 provided some job related information (e.g. title, description or start date). The main profile photo image was much less playful. Twelve of 14 were single person images, three people were wearing ties, and two were in work setting. Compared to the *College Days,* this group had less use of status messages, wall conversations, and photo sharing. Both the limiting of personal information and the increase in professional cues (e.g. the suits and job descriptions) indicate that these users are actively presenting themselves as professionals and view Facebook as a place both non-professional and professional networking.

The users in the final group, *Living in the Business World*, are the newest group to Facebook and have the most limited profile information. Some of the newbies in this group may emerge as very active members in the future. It is also possible that a group of lurkers may emerge from this group that have very limited profiles on Facebook, but are active browsers of the site content. In terms of identity management, this group shares neither personal nor professional information to date, except for the basic professional detail of being employed at our company. If these users expand their usage, we would expect them to build out their professional information more so than their personal, because their original presentation of themselves is as a professional. In the next section discussing our interviews, we will highlight one such active member who can be characterized as *Living in the Business World* and using Facebook for workplace socializing.

2.2 Limitations

This survey was done based on the profiles visible to us in our browsing of IBM's network within the site Facebook.com in May of 2007. Because of the privacy settings within the site, any user who had chosen to hide aspects of his/her profile from the company's network, or his/her entire profile, was excluded from our inquiry.

3. INTERVIEWS

To more fully understand these findings and these user segments, we interviewed eight employees who use Facebook, to understand how they use the site and what they gain from using it. We selected these users based on their high level of activity on Facebook. Our interviews found that the reported behavior of these eight individuals reflect the findings of other Facebook inquiries [1-3]: these individuals use the site daily, mostly during the work day; they use the site to keep in touch with friends they have met offline; and when they go to the site, they check messages and profile page changes, to see what their friends are up to.

Seven of our eight interview subjects were recent hires, starting at the company within the previous year, and they use the site predominantly to keep in touch with their college friends. When asked about the other employees on their friends list, they identified them as other young employees whom they had met during training or early on in their career at the company.

Three of the individuals we interviewed followed the patterns we saw in the *College Days* segment of profile pages. When questioned about issues of identity management and concerns about coworkers and managers viewing their profiles, these users were unconcerned because they considered Facebook to be outside of the context of the workplace. A particularly representative interviewee was Ben (pseudonym):

> Ben is in his early 20's and joined the company as a full time software engineer in January 2006. He is an active Facebook user, beginning in 2005, checking every day, multiple times a day. He primarily uses the site for maintaining friendships with close, but geographically distant, friends. He has over 200 friends on the site, 35 of which are employees he met at new hire events. When he joined the company, he did not change anything about his profile or the pictures of himself. His current profile links to many photos of him drinking alcohol (including directly out of a beer keg) and attending numerous college parties. He feels that Facebook is "for fun" and relates only to "personal life" and hopes that if his manager ever did see this page would understand that it has "nothing to do with his professional life."

Two of the individuals we interviewed were more aligned with our *Dressed to Impress* population: they are active Facebook users, but are aware of the issues of self-presentation and online identity, so manage their profile differently than they did in college. Ethan (pseudonym) expressed the balancing he does between work and personal life:

> Ethan is in his early 20's and joined the company as an entry level consultant six months ago. He joined Facebook in college to keep up with his current friends and used it primarily for getting to know new friends better. He now uses the site to keep in touch with these friends, but his usage has gone from an hour a week to 10 minutes a week. He has over 200 Facebook

friends and most of the new employees he met at company orientation are listed as friends. Before starting his job, he purposefully "cleansed" all information about himself on the internet: from Facebook, his blog, and his personal website. In particular, he removed all photos of himself involving "drinking alcohol." Because of that he is not concerned about strangers, managers, or mentors seeing his information online.

A third type of user we interviewed is one who uses Facebook to actively maintain social relationships within the company. This type of user most closely aligns with the *Living in the Business World* type of user and we predict that many of the new users in this *Business World* group who have sparse profiles today will evolve into users similar to our interviewee Anne (pseudonym):

Anne joined Facebook at the urging of her coworkers. Since joining, she has posted dozens of photos of herself and has received dozens of wall posts from her coworkers. Most of her Facebook friends are coworkers whom she started with at the same time. These are people she goes to lunch with and socializes with after work. She works closely with some, but others could be considered as part of her extended work network. She believes that she has become better friends with these coworkers because of Facebook and because of the site spends much more time talking to them face-to-face than she would otherwise.

While Anne is just one example, her story reflects the type of behavior we expect to continue to discover more of as corporate use of Facebook becomes more common. Her encounters with her coworkers are more frequent and meaningful because of the added dimension of being able to share information online. We will be continuing to explore this type of user behavior and the evolution of the *Business World* group.

4. DISCUSSION

From our preliminary exploration, we see signs that use of Facebook is permeating the workplace and becoming part of the workday routine of young hires. As social networking sites become more popular in general, these sites are likely to become an integral part of the workplace.

We believe there are many potential organizational benefits of increased use of social networking applications. First, social networking sites offer workers improved ways of keeping in touch with colleagues. As more employees work remotely, social networking tools can specifically increase awareness and contact between distant employees. Within many companies, staying in contact and maintaining relationships within an organization are crucial activities for a successful career, and a social networking site can become an integral way in which to do this.

A second benefit of social networking applications is supporting users in exploring and learning about new employees and team members. This act of *people sensemaking* can facilitate finding coworkers with particular skills or discovering past work experiences that might be relevant to new projects. Organization-based social network sites can also help workers identify work (and non-work) topics of mutual interest that enable building common ground and improves interpersonal communication between people who are interacting for the first time.

While we believe that the benefits of social networking sites in the enterprise are many, there are a number of significant design challenges for such applications. As our examination of corporate use of Facebook reveals, there are difficulties in simultaneously using a single site for both professional and non-professional use. A portion of the users in our survey were managing their self-presentation, crafting their profiles for both a non-professional and professional audience, but the majority was not. As our *Living in the Business World* users continue to use Facebook, they may find it challenging to effectively craft a professional persona within Facebook, given the site's existing features and expressive capabilities.

Multiple user profiles and multi-level access controls can help users manage their online identities, without unintended leakage between corporate and social personas. And Facebook provides some of these controls. On the other hand, managing multiple profiles is an added burden for users and sophisticated access control mechanisms are difficult to navigate and are often ignored by users. At minimum, we need to see better authoring tools that support efficient content management across the two worlds, including general and detailed forms of access control specification. Outside of social networking sites, bloggers and web professionals often successfully manage multiple online presentations of self, by authoring both a corporate and a personal blog, or maintaining independent web domains with pages for both their professional and personal content. The tools and strategies used by these advanced users can usefully inform the design of emerging multi-community social network applications.

Our survey of corporate Facebook users provides a first look at the issues of identity management and multiple social network maintenance done by employees. In future work, we plan to observe how the three segments we presented evolve over time, and if more or different behavior segments emerge. Within the site Facebook, we are interested to see if users will ultimately be too limited in representing their professional selves or if they will find innovative workarounds within the site to more fully express their professional identity.

5. ACKNOWLEDGMENTS

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