IBM Research Report

Enterprising Individuals: An Investigation into Fostering Professional Ties within Large Organizations

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ABSTRACT
Maintaining relationships is a fundamental activity influencing professional success. Current on-line communication tools are inadequate at taking advantage of and helping people maintain their professional network in large organizations. In this work we discuss findings from a contextual inquiry into the behaviors and activities involved with maintaining professional connections through digital communication. We present key findings derived from interviews with 14 professionals. In particular, we focus on how our participants foster and invoke collaboration. We present a set of design scenarios to illustrate emerging areas of opportunity for digital communication leveraging the constraints of being situated in a large organization.

Keywords
Design research, user-centered design, social networks, scenarios, collaboration, on-line communication

1. INTRODUCTION
The American baseball commissioner Branch Rickey once said that, "Luck is the residue of design." In the activities and tactics of maintaining professional ties, luck and quite often serendipity plays a surprisingly important role. Previous research and empirical study has investigated the importance of informal face-to-face communication as a means and opportunity for fostering professional connections [2,3,4,5]. As work relationships become more dispersed in both geography and time, the probability of serendipitous professional interactions is challenged. Online communication tools such as Email, Instant Messaging, and Weblogs will continue to be overloaded as places where people try to maintain their increasingly dispersed network of professional ties.

Successful professionals are defined in part by the strength of their networks. A network only remains strong if existing relationships are maintained and new relationships established. Staying in touch with more intimate connections, such as close friends and co-workers, is usually not a primary challenge. However, staying in contact with our occasional contacts, the weak ties at the edges of our professional network, can be taxing. If there is value in weak ties, as Granovetter and other social network analysts have shown, then these occasional contacts may require greater attention when designing for digital communication systems in the workplace.

Unfortunately, few of the existing digital communication systems adequately support the occasional communications that are characteristic of lower-commitment relationships.

As the average job length decreases and co-workers and project teams become more distributed, professionals in corporations act more like consultants, and the potential value of their social ties grows [6]. People will need more dynamic ways of accessing and leveraging their networks from the tools they use on a daily basis. Surfacing views and building awareness of the social context of work will lead to sustained potential for collaboration.

Our interest in this domain is inspired by emerging approaches to proactively building and maintaining social ties through systems like weblogs, instant messaging, and social networking services. These systems are helping mediate many types of relationships, and can also offer hints for ways to build and sustain professional ties in a more flexible manner.

2. RESEARCH GOALS AND METHODS
The primary goal of this project was to conduct design research into the practices and needs of people maintaining professional connections. We performed a contextual inquiry into people's current practices. We created a set of design scenarios to identify important areas for future investigation and set direction for continuing research.

We investigated the professional networking behavior of 14 people. Seven worked at the same large technology corporation with over 300,000 employees. The remaining seven were a mix of interns, consultants, and employees for other large technology companies. People in our sample included a Software Product Division Director, an Administrative Assistant, a Product Designer, a Summer Intern, and a Technical Marketing Manager. All participants used a variety of digital communication media in their daily work. We conducted our interviews based on the Contextual Inquiry techniques described by Beyer and Holtzblatt [1]. Interviews took place either in the participant's office or over the telephone, with one or two authors present.

We asked informants about their uses of current communication tools and how they maintained their professional network. We asked them about the positives and negatives of digital communication technologies, and inquired into the social and political aspects of their work lives. Many participants showed us
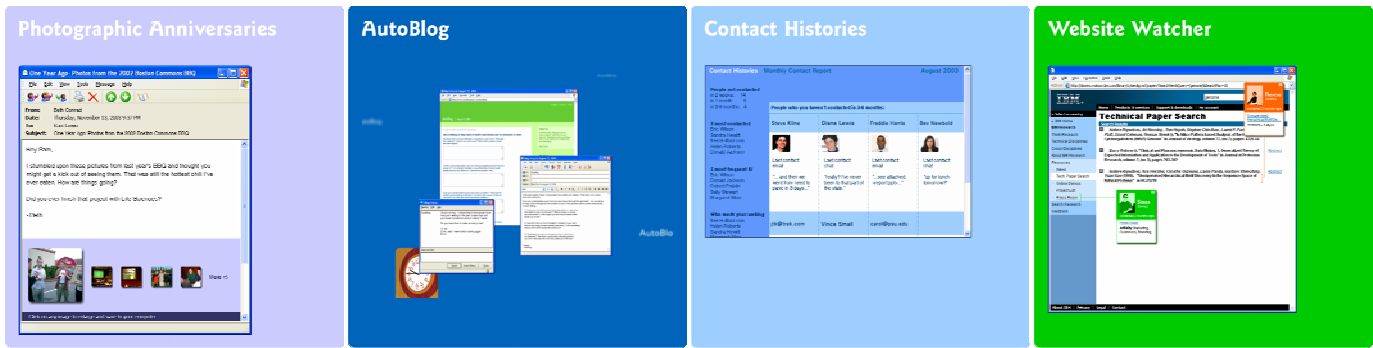
Figure 1: Each scenario includes a conceptual system that leverages corporate information and data to better enable people to maintain their professional connections in the workplace.

their preferred communication tools and explained how they adapt them to meet their needs. The majority of our data was communicated through reflective stories and past experiences.

3. KEY FINDINGS

The individuals in our sample comprised a broad mix of professional experience. One participant held the same position for nearly 15 years and only recently had changed roles. Another participant was accustomed to switching positions 2-3 times a year. The scope of work and degree to which individuals change teams and roles did not detract from the overall value attributed to professional "networking". Approaches to maintaining connections were similar regardless of job title or position in the corporate hierarchy.

To this end, we collated the behaviors and reported tactics of all interviews. The following five key behaviors emerged:

1. Manufacturing Serendipity – "creating" chance meetings in hopes of further collaboration.

2. Visibility – Publicizing Roles and Skills – finding more dynamic ways to communicate their prospectus.

3. Social Positioning and Politics – aligning and associating self with the correct people.

4. Know Your Audience – overcome the effort needed to repackage content for different media preferences.

5. Preferred Media Overload – people overload the culturally preferred communication media to maintain their professional networks.

4. SCENARIOS

We created a handful of scenarios (see Figure 1) to illustrate how potential systems might better enable professionals to maintain tie. Each scenario addresses one or more of the 5 findings about.

- Photographic Anniversaries – using meta data on photographs as a trigger for future collaboration.

- AutoBlog – an automated system that, at certain times, sends prompts to engage an employee in weblogging.

- Contact Histories – a periodic summary of personal contact cutting across media.

- Website Watcher – sharing browser history and skill affinity to augment the web browsing experience.

5. CONCLUSIONS AND FUTURE WORK

Maintaining relationships is a fundamental activity influencing professional success. Current digital communication tools are inadequate for helping people maintain their social network in the changing landscape of work in large organizations. We interviewed over a dozen professionals about their relationship maintenance practices and organized their behavior and tactics into five key areas. We developed four scenarios that incorporated ideas from our key findings.

Our research suggests that there is great potential to increase the richness of online communication within organizations. Systems that can leverage corporate resources such as communication logs and knowledge management tools hold great potential for the networked employee. Creating new opportunities for professional interaction and heightening awareness of the state of one's ties are two ways to better foster collaboration.

The design concepts we have developed are an initial exploration in a rich and multifaceted research area. We would like to focus on one of the key findings and perform a more in-depth study. We plan to develop and test a prototype system that augments existing collaboration tools using the results here as design goals.

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