Leveraging Social Software for Social Networking and Community Development at Events

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ABSTRACT

Professional networking is a primary goal of people attending conferences and events. Over the past year we have developed an online social networking and community tool for events, Pathable, to help attendees meet the *right* people. Pathable provides an online directory of attendee profiles, communication tools, and a recommendation system optimized to help people find each other based on commonalities. We performed a questionnaire study at a pathable-enabled event to assess the importance of social networking, and found that quality of conversations and sense of community were strong predictors of who said they would return year after year. In addition, the more people used Pathable to meet others at the event, the greater their event attachment and sense of community. Based on lessons learned from an overview of seventeen Pathable-enabled events, we provide guidelines for leveraging social software to optimize professional networking and community development at events.

Categories and Subject Descriptors

H.5.3 [**Information Interfaces and Presentation (.e.g., HCI)**]: Group and Organization Interfaces – *computer supported cooperative work.*

General Terms

Measurement, Design, Experimentation, Human Factors.

Keywords

Social networks, social networking, community, communities of practice, conferences, events, social computing, social software, social media, Web 2.0.

1. INTRODUCTION

In the modern era of Web 2.0 social media and distance learning, people may acquire extensive professional knowledge without ever leaving the comfort of their office. Yet, world wide there are over 1.2 million professional conferences and events each year [17], adding up to a hundred billion dollar industry. People largely attend conferences for two reasons: to learn from others, and to form meaningful connections with clients and colleagues.

As Nardi et al. [18] so aptly noted, in the modern world it is not *what* you know, it is *who* you know, that is most important in helping you get the job done. Although people have a remarkable increase in access to others around the globe through social technologies [27], these technologies cannot replace the depth of understanding and connection with another person that is gained from face-to-face interactions [5].

We developed Pathable, an online social networking and community tool for events, to help event organizers meet this demand for meaningful professional connections amongst attendees. It is an online social network that is optimized to facilitate *face-to-face* interpersonal connections at events. Pathable provides an online directory of attendee profiles, communication tools, and a recommendation system for whom to meet at the event. Interest-based communication groups and social recommendations help people strategically find similar others in the limited amount of time available to them. It also incorporates event scheduling, a mobile experience, and a wiki. Pathable builds on the fact that people are increasingly connecting during events not only face-to-face but through their laptops and cell phones. See Figure 1.
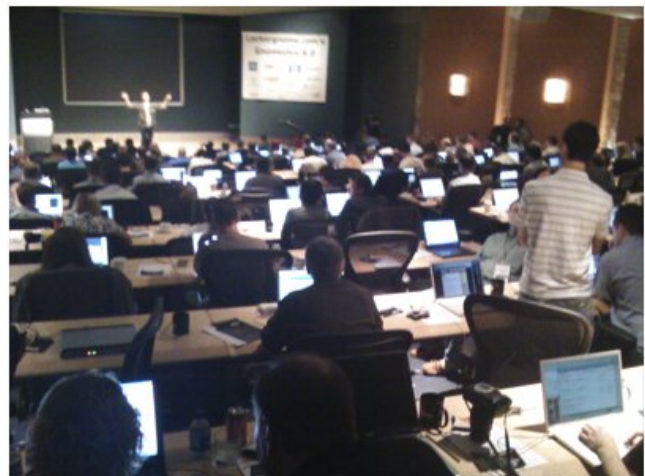

Figure 1. Events are becoming increasingly technology-enabled.

In the past year, during the early phases of Pathable's development, we conducted informal interviews with event organizers, completed a questionnaire study of social networking at a pathable-enabled event, and performed observational and usage analyses assessing attendees' experiences at seventeen Pathable-enabled events.

In this paper we summarize the lessons learned across deployments, discussing a) why developing a professional network is so important, b) how Pathable helps people do so at

events, and c) how event organizers may best optimize their attendees' networking experiences as *community moderators*.

2. BACKGROUND

2.1 The Importance of Networking at Events

As described by Forret and Dougherty (2001) "networking is an important career management strategy in the era of the boundaryless careers [6, p. 283]." People engage in networking behaviors to increase access to valuable information, resources and opportunities. In other words, social networking increases social capital – the resources that can be leveraged through interpersonal relationships [5, 22]. Research has shown that effective networkers are promoted more quickly within organizations, more easily find new jobs across organizations, and earn more money [6]. The more diversity in the kinds of weak ties people develop – those ties outside their own immediate social circle – the greater the social capital [8, 27].

Professional networking behaviors include maintaining contacts, socializing, engaging in professional activities such as attending conferences, participating in community groups, and increasing visibility to others [6]. In the modern era of social media, it also includes personal and group emailing, writing blogs, and joining online social networks such as Facebook and LinkedIn.

People who effectively leverage these new communication mediums largely increase the diversity and scale of their weak ties and social capital [5, 8, 27]. According to a recent report from the Pew Internet and American Life Project [11], 62% of employed Americans are "networked" workers, using email and the Internet at work, and this number only increases with higher levels of management or more professional domains. 73% of managers and professionals report using the Internet or email *constantly* or *several times a day*. 35% of networked workers also use social networking sites (75% of 18-29 year olds, compared to 30% of 39-49 year olds). Nonetheless, employed email users still express a strong preference for in-person meetings to handle more complex situations where they need to ask questions, deal with sensitive issues, or solve problems.

It is only through face-to-face interactions that people can develop the required sense of connection -- a feeling of trust and affinity -- needed to engage in many professional activities. Successful knowledge sharing and critical work often occurs through informal, face-to-face social interactions [4, 9]. Parise [20] for example found that frequent face-to-face interactions due to physical proximity – having offices on the same floor – had a meaningful impact on idea and information exchange within an organization. Many of the factors required for cooperative actions, including an awareness of a person's reputation and a belief in his or her accountability [10] are challenging to achieve without face-to-face contact [5]. In other words, face-to-face networking is essential for developing *professional* social capital – the resources that can be leveraged through professional networks to help get the job done.

The need for face-to-face professional networking explains why, although people may acquire immediate, updated information through the Internet, millions of people attend events each year. People go to conferences not only for updated knowledge in the context of talks and exhibitions, but also for the conversation around the content, and for the contact information of the people with whom they had meaningful interactions. As McDonald et al. [15] note:

Some would argue that conference "work" is about the intellectual topic of the conference, and to a degree that is true. But the topic serves to draw the participants and focus the interactions; the topic is a "means" to get to the "ends" of interesting engagements [p. 24].

Given the importance of developing professional social capital, conference attendees want to know they are going home with the most optimal list of contacts possible. In a sea of hundreds or even thousands of strange faces at events, how do they know they are meeting the *right* people, the ones with whom they are most likely to develop a meaningful connection?

2.2 Community, Social Capital, and Event Attachment

Social networking behaviors generally involves to person-to-person relationships. However when interconnected sets of people develop relationships another sort of entity may emerge: community. When we interviewed over a dozen event organizers to assess our feature requirements for Pathable, we were surprised at the number who mentioned that building community amongst their attendees was a primary goal.

From the perspective of the attendees, this makes sense. Many of the benefits of face-to-face, person-to-person interactions (developing a sense of connection and trust) may also be achieved indirectly by participating in a larger community. A strong sense of community is characterized by feelings of belonging and attachment to a group, investment in the group, and reciprocity with the group [28]. By virtue of membership with the same community, people are more likely to trust each other and do each other favors, without even knowing each other. In other words, participating in a larger community increases social capital in much the same way pair-wise social networking does [22].

Similarity, in a professional context, people are motivated to participate in *communities of practice*. A community of practice consists of a group of people interested in a content domain (e.g. medicine, technology, or marketing) who engage in shared practices to increase the effectiveness of its members and the group as a whole [26].

Why is the development of community so important to event organizers? Rosenbaum et al. [23] recently published a study in the Journal of Service Research that sheds light on this issue. They conducted a study of the role of commercial social support on third-place attachment. Third places [19] are environments outside either the home or the office, such as coffee shops, that facilitate the formation of new connections through frequent, increased opportunities to meet new people. In their study of 83 people who regularly visited a diner, they found that the more social support they received from others in the diner, the more *place attachment* they felt. That is, they had an increased sense of belonging, dependency, and identity with the diner itself.

Let us map this to events. Events and conferences provide another form of third place, designed to help people who need professional support meet each other. Similarly, we might expect that as people develop a sense of community, professional social support, and social capital through others at an event, they will experience *event* attachment.

Thus, we expect that to the extent that an event organizer may foster a sense of community at their event, their attendees are more likely to come back year after year. See Figure 2.
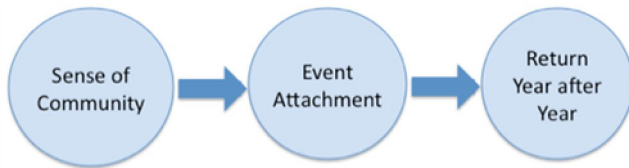
Figure 2. We expect that sense of community at events increases attendee loyalty.

2.3 Related Technology

There are a few related technologies, designed to improve social interactions at events. Crowdvine, EventVue, and IntroNetworks all provide online social networking systems for events. However CrowdVine and EventVue do not have interest-based communication groups, professional matchmaking, and all three do not integrate with face-to-face interactions during the event. NTag and SpotMe provide mobile, wearable devices that facilitate interactions through proximity-based notifications (e.g., by beeping when someone an attendee may want to meet is near), however, they do not facilitate pre- and post- event interactions, and at up to fifty dollars a person, they are too expensive to be a viable solution for many events. There have been a few more experimental projects using wearable devices or proactive displays to help people meet at conferences [15], however these technologies tend to be quite expensive and there is very little research with real-world evaluation at conferences. One exception is Counts and Geraci [3], who performed a limited wizard-of-oz study showing that people are more likely follow up with each other through an online social network if they were at the same social event -- whether or not they had actually met at the event. Another notable exception is provided by McDonald et al. [15]. They explored the use of proactive displays embedded in conferences to enhance a feeling of community and facilitate social interactions. The most similar application to Pathable is Neighborhood Window, which visualized the unique and shared interests of attendees standing near the proactive display. While provocative, such proactive displays only affect the interactions of those standing nearby, and do not support interactions over the entire life cycle of the event.

In the past ten years social media has come to dominate the Internet. Over 150 million people are now using social networking services such as Facebook, and 15 million are using LinkedIn, a professional networking service. As discussed earlier, the power of going online is it increases access to not only your strong ties no matter the time or place, it also increases access to weak ties – essential to effective professional networking. In addition, online search tools, match-making algorithms, and recommendation engines increase people's ability to find the *right* people.

A primary goal of Pathable is to facilitate pre- during, and post event strategic networking in a way that is practical for most event organizers – using social media integrated with day-to-day technologies already used at events: the Internet, the cell phone, and the name badge.

3. PATHABLE

Pathable is an *online* social software and badging system designed specifically to leverage the power of social networking tools to facilitate *face-to-face* interactions at conferences and events. People do not have the luxury of a lot of time at one- to three- day conferences. Our goal is to help people engage in strategic

networking before, during and after the event, to optimize their interactions given the limited time available. The online system includes a searchable directory, communication tools, a recommendation system, a wiki, and a schedule. See Figure 3. In addition to providing online networking and community tools, Pathable enhances face-to-face networking through both a personalized badge and a mobile interface.

Figure 3. Pathable's community dashboard for events, showing who is attending, most common tags, recent conversations, and recent RSVPs.

Pathable's design was shaped by a few central design themes.

3.1 The Event Host is a Connector and Community Moderator

Given the importance of networking and community development, Pathable is structured much like existing online community systems, where the event organizer plays the role of host and moderator of a temporary community. We believe strongly that the host plays a very important role as the trusted connector. Connectors are the people who "link us up with the world ... people with a special gift for bringing the world together [7, p. 5]." It is through their trust in the host, and the event, that people are willing to expose themselves to all the other event attendees.

As such, within Pathable event hosts have complete control over who is added or invited to their events, special communication tools, a host dashboard that shows event activity, and editorial control over profiles and messages.

Through Pathable the event host also serves as a communication broker. When people come to events they are generally stating a willingness to meet a lot of others in the short time they are attending the event. However, they also want control over the level of communication access. That is why attendees need a

system such as Pathable, because they may turn on and then off again the flow of communication at will, rather than simply handing their contact information out to everyone at the event. Similarly, it was made clear to us through our interviews with event organizers that attendees also need control over whether or not their profile appears in the directory. On occasion they may wish to share their information with the event host, but not with other attendees.

Event organizers may use Pathable simply as an RSVP service, or as an online directory of attendees, like E-vite for professional events. However, with nurturing the host may help it evolve into a thriving temporary community.

3.2 Social Tags are Used as Pivots of Awareness, Connection, and Communication

Social tagging has emerged as a dominant method for organizing organic semantic spaces in the past several years [12]. The basic idea is that as people "tag" content with keywords, over time a collective wisdom emerges around the shared content based on common tags. In Pathable, people describe themselves using tags in their profiles (e.g., "research, social technology, photography"). As people tag themselves we may begin to observe important semantic themes in the event's social space by examining the frequency and co-occurrence of the tags. These tags are included on a tag cloud on the home page. See Figure 3. The tags are extremely important in helping attendees find each other in the directory based on shared interests. Unfortunately, given their organic nature, tags can get messy [12]. As such, we designed Pathable to encourage people to converge on tags by listing already used tags to chose from when completing profiles.

Pathable pushes the tagging metaphor even further by using them as the basis for interest-based communication groups. For example, if an attendee wants to ask a question of people who are interested in design, he or she may do so by sending a message to the "design" tag. While unusual, this has proven to be a powerful feature as people begin to understand that through the tags they may communicate with similar others.

We also provide the event host with the ability to provide categories to which attendees assign themselves when completing their profiles. For example, a host at a technology event may decide that it is important for developers, designers, and program managers to find each other, so may use these job types as three of the categories. These categories are then reflected to attendees using color-coded online profiles and badges. See Figure 4, where light green indicates "startup" on the badge.

3.3 Professional Match Matching

Another guiding design goal of Pathable is to help attendees find the right others as strategically as possible in the limited amount of time available to them. To help attendees achieve this goal, we match them based on their profiles.

We optimized the matchmaking questions to enable the best possible matches with the least amount of attendee effort possible – people do not want to fill out extensive profiles for even a three day event. For example, based on people's email addresses, we use RapLeaf to populate profile fields from publicly available data. If a user has completed a profile for another Pathable-enabled event, we will use that data to populate their profile for their next event.

Any number of recommendation systems have been developed for professional match-making. See Terveen and MacDonald [25] for discussion and review. They describe two primary types, those based on expertise locators and those based on common social relations.

Unlike many of these systems, the profile questions for Pathable were selected based on our understanding of the psychological principles underlying successful matches for *peers* seeking collaborative relationships in a community of practice. The first, most common predictor of liking or affinity is common interests or knowledge domain, which is represented by asking people for five to ten tags that describe them. We also ask people to provide information about their groups and events because existing memberships indicate not only their existing communities of practice, but also at what *status level* they operate. For example, in the technology industry whether they are attending the $3000 PC Forum or the $300 SXSW is a strong indicator of status. S*uccessful* collaborative relationships are generally between peers or near peers. We seek to avoid matching people with extremely large discrepancies in social status by using not only common events, but also by using job titles and measures of event connectedness.

People are also more likely to develop an affinity for others if they have been in the same place at the same time at other events, or if they have the expectation of future interaction because they live in the same neighborhood [10, 25]. All these variables are weighted inputs in our matching algorithm.
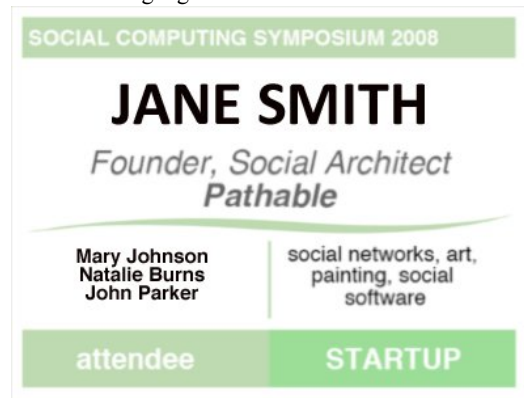

Figure 4. Pathable's personalized name badge includes matches, tags, and category to facilitate face-to-face interactions.

After people complete their profile, they have an opportunity to review their matches. If there are people on their match list they already know, they may remove them by bookmarking them as "already know".

The matches are integrated into face-to-face interactions through a short list on the badge itself. See Figure 4. These matches inspire conversation not only with the matches themselves, but with others who may also know the matches and help direct the attendee to them.

3.4 Incorporating Back Channels

Back channels are communication channels at events that exist simultaneously with the fore-channel speaker presentations or conversations. For example, while a speaker is talking, some of the attendees may be text messaging each other on a personal

back channel or through Twitter, a micro-blogging text messaging service.

As people increasingly bring their laptops and cell phones to events, the levels of back channel conversations has also increased. While some people may be blogging live about the session they are in, others may be sending Twitter updates about whether they like the event, and even others may be sending links and comments related to the topic in an IRC chat room.

Backchannels are a mixed blessing [13]. On the one hand, a speaker session will be much more quiet and less dynamic if all the people in the audience are communicating with each other via the back channel. On the other hand, the more people are connecting via the backchannels, the stronger their sense of community.

We found in our interviews that the more tech-savvy event hosts have generally embraced these backchannels, and some even believe they have proven quite valuable in helping them assess their attendees' reactions to their events.

Therefore we provide a central place for backchannel conversations, or *feeds*, to help increase attendees' and event organizers awareness of the back channel conversations around the event. The feeds feature in Pathable collects and aggregates the blog and Twitter messages of attendees, and within each session on the event calendar we have set up chat rooms for session conversations.

4. QUESTIONNAIRE STUDY: PATHABLE AT BARCAMP SEATTLE

We performed a questionnaire study of a Pathable-enabled event, BarCamp Seattle, to address a few of our main assumptions – that social networking and a sense of community meaningfully impact the success of an event, and that Pathable can be used to help people meet, increasing their sense of community and event attachment.

4.1 Procedures

BarCamp Seattle was a free, two-day conference held for Web 2.0 technologists on June 14, 2008 in Seattle. BarCamp events follow an unconference or open-space format, where the content of session talks, discussions, and demos are largely provided by the participants, rather than being determined by the event organizer. Session proposals are collected at the beginning of the event and then voted upon. In practice, many open-space conferences are a mix of pre-selected session speakers and sessions selected by attendee votes. Open-space conferences have become increasingly popular in the technology industry because a) they emphasize the role of audience as participants, where everyone may learn from each other as effectively as pre-selected speakers, and b) they allow themes to emerge based on interests of the group. As such, open-space conferences are an ideal format for communities of practice.

BarCamp Seattle used Pathable as its registration system. In the process of registering, attendees completed a profile and then had access to the searchable attendee directory and communication system. Personalized Pathable badges were printed and given to attendees the first morning of the event.

280 people registered for the event. While everyone was required to complete basic profile information to register, it should be noted that no one was required to complete a more extensive profile or use the communication features. Nonetheless, most people provided at least a few tags in their profile (averaging 8 tags per person) and 75 tag based group messages were sent. See Figure 5 for a typical conversation thread, sent to the tag "semantic web":

To: [Semantic Web] Presentation at BarCamp

Person 1: *Hey SemTech folks, me and my co-worker wanna give a presentation at BarCamp this weekend. Anyone wanna join us?*

Person 2: *sure I'm in! What? FoaF?*

Person 1: *anything around the topic really, I & my co-worker were going to talk about the components to make semtech work (URI's, RDF, RDF Schemas, OWL ontologies, etc) but if you wanted to do a part with FoaF that'd be awesome!*

Person 3: *I will *definitely* attend!*

Figure 5. Most conversation threads for BarCamp Seattle involved planning around sessions or activities in Seattle.

During the event and immediately following the event we asked attendees to complete a questionnaire about their event-based social networking experiences in exchange for a chance to win an iPhone. 78 people total (76% male and 24% female) completed the questionnaire, 18 at the event and 60 afterwards online. The online version had a few more questions asking attendees about their usage of Pathable itself at the event. The mean age was 33, and respondents were largely comprised of developers, designers, and startup entrepreneurs.

The questionnaire first asked attendees to estimate the size of their existing network at the event, how many new people they met, and their satisfaction with various aspects of the event. We asked respondents to indicate in an open-ended question what were their primary goals in coming to the event. We categorized whether each response included one of the following goals: to meet others, to learn, to share, or to be inspired.

Attendees then completed measures of sense of community at the event and event attachment. We adapted a standardized measure of psychological sense of community [28] to apply directly to sense of community within the event. This scale included items such as "A feeling of fellowship runs deep between me and others at BarCamp Seattle", "I feel loyal to the people at BarCamp Seattle", and "My friendships and associations with others at BarCamp Seattle mean a lot". To measure event attachment, we adapted items from Rosenbaum's study [23] assessing place attachment – including the factors of functional dependency, commitment, and identification with self. The dependency factor included items such as "I get more satisfaction out of BarCamp Seattle than other events", and "Coming to BarCamp Seattle is more important to me than going to other events". The commitment factor included items such as "I really care about the fact of BarCamp Seattle" and "I am glad I chose to come to SeattleBarCamp rather than other opportunities." The identification factor included items such as "The success of BarCamp Seattle is my success, and "I am very interested in what other's think about BarCamp Seattle."

Finally, we included a measure of the level of professional support attendees felt they would receive from others at the event [9]. These included items such as "Please indicate the extent to which the people at BarCamp Seattle provide you with information you use to accomplish your work" and "Please

indicate the extent to which you would turn to people at BarCamp Seattle when you have a new idea."

4.2 Results

4.2.1 Primary Goal in Attending Event
As illustrated in Figure 6, 72% indicated a primary goal was to meet others, whereas only 33% indicated a primary goal was to learn.
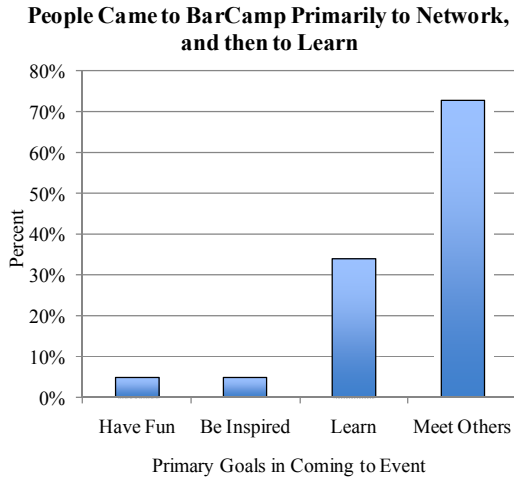
People Came to BarCamp Primarily to Network, and then to Learn

Figure 6. People came to BarCamp Seattle primarily to meet others.

4.2.2 Impact of Event Features on Desire to Return
We then examined what features of the event had the greatest impact on attendees' desire to come back the next year, and in the next few years. See Table 1 for correlations.

Surprisingly, the actual raw numbers of professional friends and colleagues at the event had only a small impact, and the number of new people they met had no impact on whether they intended to return the next year.

The strongest predictors of the intention to come back the next year were the quality of conversations, followed by satisfaction with the content of the sessions, and event attachment. The strongest predictors of their intention to return year after year were the dependency and commitment factors of event attachment, and psychological sense of community.

These results strongly support the argument that people come to events primarily to network, and that the higher the quality of the conversations and their sense of community, the greater their attachment and loyalty to the event. As we expected, sense of community and event attachment were very strongly correlated ($r = .81$, p < .005).

4.2.3 Impact of Pathable on Networking and Sense of Community
Our next question was whether the use of Pathable had a meaningful impact on people's social networking and sense of community at the event. Although everyone had to register through Pathable, not all attendees took the time to complete a rich profile or use the communication features.

Event Feature	Will Come Back	
	Next Year	Years to Come
	r	r
Number of people met	.26	.12
Professional friends at event	**.31**	.01
Satisfaction with sessions	**.63**	**.59**
Satisfaction with conversations	**.80**	**.62**
Professional suport	**.41**	**.39**
Sense of community	**.44**	**.78**
Event attachment		
dependency	**.62**	**.73**
commitment	**.67**	**.79**
identificaiton	**.31**	**.49**

Table 1. Correlations between features of the event and desire to return. Bolded items are statistically significant at p < .05.

When asked how much they used various features, 60% said they browsed the directory at least somewhat or quite a bit, 47% said they browsed the messages, 19% sent messages, and 66% used the match-making feature. 43% said they intended to use the directory after the event to find people, and 55% said they intended use the communication features to get in touch with people after the event.

In sum, roughly half of our respondents actively used Pathable. We found that people whose *only* goal was to learn, were much less likely to use Pathable than people whose *only* goal was to meet (Ms = 2.0, vs. 3.8 on a scale of 1 = not at all to 7 = extremely so, t(32) = 2.5, *p* < .02). Age and gender did not impact level of Pathable usage.

We created a general usage score by aggregating reports of usage across features. We found the higher their usage score, the more they said Pathable helped them actually meet people at event ($r = .65$, $p < .005$). There was no correlation between usage and numbers of new people met. However, we did find that people who used Pathable had more people at the event they would classify as a professional friend or colleague (*r = .36, p < .01*). See Figure 7 for the number of new people met for the low and high usage Pathable users (people were split into high and low usage at the 50% percentile).

Did greater usage of Pathable impact the success of the event? The more people actively used Pathable, the more they indicated they were likely to go to BarCamp in years to come (*r* = .25, p < .05). People who actively used Pathable had more event attachment on the identity factor (*t*(32) = 2.0, *p* < .06) and a higher sense of community (*t*(34) = 2.5, *p* < .03)[1]. See Figure 8. However we did not find a direct impact on the likelihood to come *next* year, or on the other dimensions of attachment.

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[1] The test compares only low users to high users to reflect portrayal of findings in Figure 6. However correlations between usage and sense of community (*r = .35, p < .01*) and attachment (identity, *r = .38,* p < .006) are also statistically significant.

A closer examination of specific feature usage shows that Pathable helped attendees meet others the more they browsed the attendee directory ($r = .37$, $p < .005$), browsed attendee messages ($r = .43$, $p < .005$), sent messages ($r = .54$, $p < .005$), and used the match-making feature ($r = .66$, $p < .005$).
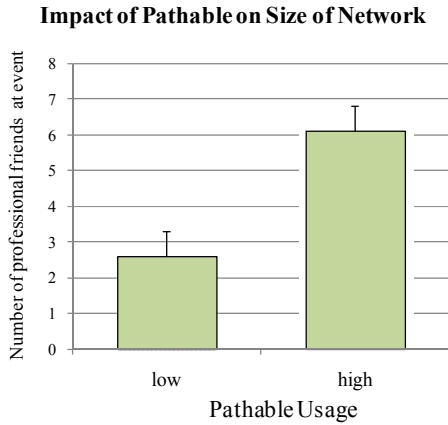
Impact of Pathable on Size of Network

Figure 7. People who used Pathable more had more fellow attendees they considered professional friends or colleagues.

It is of particular interest that usage of Pathable did not impact the raw number of new people met, but it did impact the number of attendees considered a professional friend. These numbers suggest that while Pathable helps attendees meet the right people and usage of Pathable corresponds with higher levels of event attachment and sense of community, it does not impact the *volume* of people that are met. As noted earlier in Table 1, the sheer volume of new people met had no impact on whether people intended to come again the next year. It is quality, not quantity, that matters.
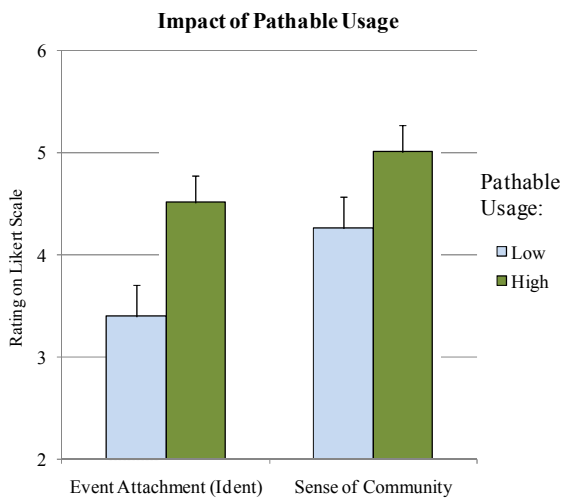
Impact of Pathable Usage

Figure 8. The more people used Pathable, the greater their sense of attachment on the identity factor, and the more their sense of community.

The results of this study indicate that for events where meeting others is a primary goal, a sense of community and event attachment meaningfully impact whether people intend to come back again next year or in years to come. It remains to be seen if these results will generalize to other types of events such as more education- or trade-show- focused events. For those who used Pathable, it proved valuable in helping to meet others, and use correlated with number of professional friends at the event, a sense of community, increased attachment, and desire to return. It may be the case that people who already have higher levels all of these variables are more likely to use Pathable to begin with. However, the fact that people who come to the event primarily to meet others are more likely to use Pathable, and those who use Pathable report that it helped them meet people, indicates it is having a meaningful impact on people's networking experiences.

5. LESSONS LEARNED ACROSS EVENTS

As we write this paper we are only just now releasing our self-provisioning version of Pathable. This means over the course of the past five months we have been actively involved in seventeen Pathable deployments at professional events, a mix of evening mixers and one to three day conferences. As discussed earlier, event organizers may engender a thriving temporary community around their events. An examination of usage data across these events and how event organizers have interacted with their communities provides valuable lessons in how to optimize the Pathable experience. In the following sections we review successful strategies adopted by event organizers.

5.1 The Life Cycle of a Pathable Community

Figure 9 illustrates what activity in a successful Pathable event looks like -- in this case Gnomedex, an event of 323 people in Seattle. As can be seen in Figure 9, it took just two email messages from the event organizer (inviting people to participate, and later reminding them to review their badges) to generate a well-used community where 212 attendees posted their profiles.

For this community 219 messages were received, out of which 131 were private. 252 people were bookmarked, and 20,535 searches were performed on the attendee directory. The pattern of activity for Gnomedex is very similar to most events. People will complete their profiles a week or two before the event, engage in a fair amount of profile browsing immediately prior to the event, and then browse again after the event. Most messages occur within the week before and the week after the event.

5.2 Pathable is Better for Some Events than Others

Professional networking is not a primary goal for attendees at all events. However it is arguable that across events, no matter what the purported goals, attendees will be looking for networking opportunities. Across most of our events so far, we found that most people will post their profiles in the Pathable directory. (See Figure 10.) We have not found that age or gender has impacted whether people will use Pathable. Neither have we found that people must be tech-savvy – if anything, we have found that people who are *less* tech-savvy particularly enjoy the badges.

We have found across events however that fewer people were likely to take the time to complete and publish their profile for the Pathable directory when it was only for an evening mixer (61%), versus a full day conference (90%). This indicates that while event organizers might use Pathable's RSVP and badging features for mixers, they should not expect as much interaction online as we observe in the full day conferences.
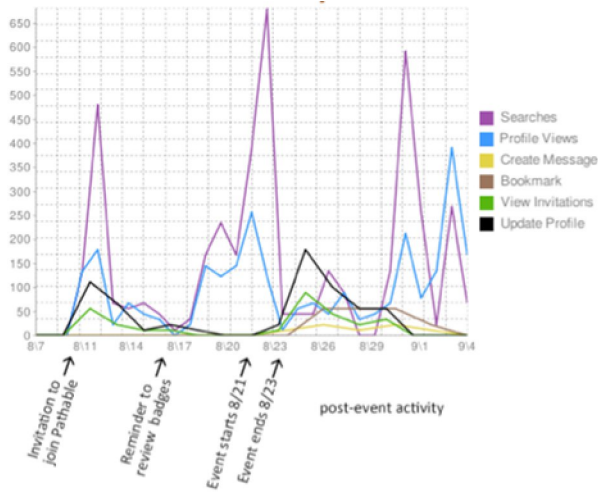
5.3 Seeding the Pathable Community

Figure 9. Life cycle of Pathable activity before, during and after an event.

Before a few people have signed in to Pathable and complete a profile, it is an empty shell and not a satisfying experience. We have found that before inviting all attendees into the community, it is best to have the event organizers and a few of the volunteers or speakers complete their profiles. Attendees take their cues of expected behavior from the event organizers. They will only believe it is desirable and important to complete their profiles or send messages if the event organizer takes the time do so. Similarly the event organizers should post an initial welcome message to the [ALL] tag of attendees, so that attendees will find a message waiting for them when they first log in, showing them how the messaging is done.

5.4 Authoring Speaker Profiles

We noted that event organizers sometimes experience difficulty persuading speakers or other "high status" people to provide profile information for their event. Such individuals are extremely busy and often not as motivated to meet new people at the event as others. In reality, while everyone would like a few minutes of time with the high status attendees, *successful* professional relationships are formed with peers that provide balanced reciprocation in social capital. However, these high status individuals and speakers in particular are often very representative of what the event is about, and attendees want to learn more about their speakers. As such, we have learned to encourage event organizers to complete the speaker profiles themseves to the extent they are capable, and when they are done invite the speakers in to review.

The attendee directory is a *key value* event organizers are providing for their attendees, and in many cases also their sponsors. Searches on the event directory are the dominant usage of Pathable (see Figure 12), especially if the organizer makes the event directory public. As mentioned earlier, there have been over 25,000 individual searches of the Gnomedex directory, and an average of 6882 total searches per event across the Pathable conferences.

We designed the directory and the host tools with the assumption that the directory will in essence be *co-authored* by the event organizer and individual attendees. The more the organizers take

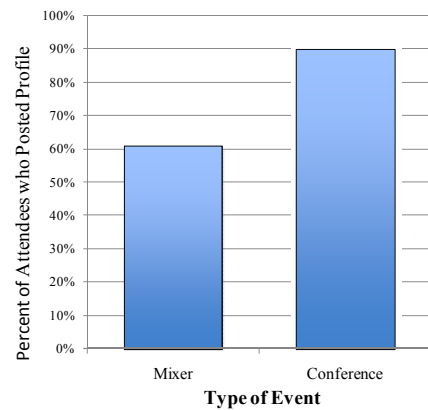**Figure 10. Most attendees will publish profiles in event directory.**

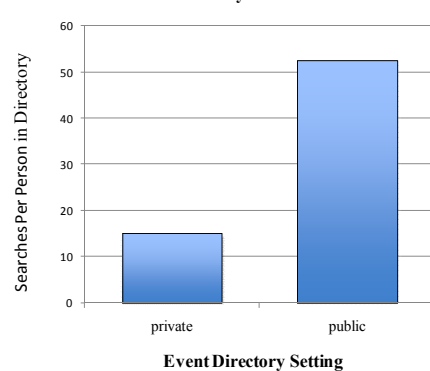**Figure 11. Attendees have more conversations in Pathable at conferences than mixers.**

Figure 12. The number of searches in Pathable attendee directory is much higher if directory is public.

the time to complete the profiles of these key individuals, the more valuable the directory will be. In our experience, speakers will be happy to have someone else do the work for them, as long as they have the opportunity for editorial review.

5.5 Seeding Tag Groups

Tags are extremely important in helping people gain an overview of the event and find similar others. However, because they are user-generated there may be any number of inconsistencies across individuals (e.g., tagging themselves with "blog" vs. "blogger"). The user interface is designed to improve tag convergence, however we observed a few cases where the event organizer took a more proactive role by seeding event profiles with tags they believed most important – either in their own profile, the profiles of the speakers, or the profiles of individuals they knew fairly well. When event organizers "seed" tags in this way, they are not only ensuring the right tags appear in their conference, they are helping people connect to each other via their common tags.

5.6 Use of Color Coded Categories

We observed across events that when event organizers used the color-coded categories, the categories helped considerably in improving the networking experience for a number of reasons. First, they helped people find similar others. Second, even if people provide minimal profile information, they would still likely be matched with others based on the category. Third, they helped event organizers summarize the character of their attendees through the pie chart of category types on the event community's home page. Finally, we observed the color-coded badges integrated into birds-of-a-feather meetings. At BizJam 2008, the event organizer set up discussion sessions based on the categories. At Seattle Mind Camp, we observed during an introductory session the session facilitator had everyone group themselves by categories and introduce themselves.

To date, 82% of Pathable-enabled events have used these categories. A few used the categories to indicate job type: e.g., developer, designer, marketer. A few had the categories indicate primary interest, e.g. at New Media Expo, categories included blogging, podcasting, and mobile. A few used the categories to indicate type of person, e.g. "creative" vs. "geek". In one case, people categorized themselves by the Star Wars character they most identified with (Han Solo, Luke Skywalker, or Darth Vader). At the Northwest Entrepreneur's Network Entrepreneur University, attendees completed a personality test, and then the badges were used to color code people by these five personality types.

5.7 Bringing Attendees into the Pathable Community

The event organizer has several options for how to bring people into their Pathable community, and we found that some work better than others. If attendees register through Pathable, they seamlessly complete their profile as a part of the sign up process. We found however that if attendees were registering elsewhere, it was important to import as much of the profile information as possible for them. Attendees do not want to provide the same information twice. To that end, we made it possible to either import attendee data using a standard comma-delimited file, or integrate with existing payment systems such as Eventbrite, where we pull the attendee data automatically.

In a couple of cases where attendees registered elsewhere, the event organizer simply posted a link on their web site or in a general email pointing to the Pathable community. We have found that this largely decreased adoption, with only 10 – 30% joining and completed their profile (compared to the usual 60-100%).

Event organizers experienced the highest adoption when they imported their list of attendees and sent the invitation to join via the Pathable host messaging system. In this case, attendees receive the invitation as a personalized email from the event organizer which includes a link directly to their profile.

In our experience, as many a quarter to a half of the attendees will procrastinate to complete their profile until days before the event. As such, we have encouraged event organizers to send one "please join and preview your badge" message a few days before the event.

Finally, after the event, we found it helps if the event organizer sends a thank you message from within Pathable, reminding their attendees they can always update their profile and continue using Pathable to connect.

5.8 Facilitating Matchmaking

As clearly illustrated in our BarCamp Seattle study, the matchmaking feature had the biggest impact on people's ability to meet others. Across events, the best matchmaking experiences occurred when event organizers leveraged all of the matchmaking features. When they used the categories, categories serve as a minimal point of connection between people. When they used the badges, they motivated people to provide better information in their profiles out of self-presentation concerns, and the experience of matchmaking at the event itself was much improved. Without the badge, a lot of the information that facilitates conversation (the tags, the categories, the matches) stays online. In a few of the cases where event organizers were not able to use the Pathable badge as their primary badge, we suggested printing them as stickers for one of their receptions.

6. CONCLUSIONS AND FUTURE WORK

People come to events both to learn and to meet people. In an examination of a particular two day conference, BarCamp Seattle, we found that meeting people was a primary goal and that the sense of community and event attachment people felt toward the event strongly impacted their likelihood of attending the next year. We further found that the usage of Pathable was meaningfully related to people's sense of community and event attachment, and that the more people used Pathable, the more it helped them meet others at the event and develop their professional friendships.

Based on our experiences with deploying Pathable events, we described some lessons learned for how to enable event attendees to engage in strategic social networking using Pathable. As discussed earlier, Pathable was designed to provide the event organizer with the tools required to nurture their community. Generally, the more the event organizers took advantage of these tools, the more the community thrived. Those who fully leveraged Pathable took on the role of community's host and attendee connector, seeding their events, providing examples of desired behaviors, nurturing the event's conversations, and helping attendees meet using Pathable's recommendation and badging features.

The Pathable recommendation system was designed to help people find each other based on common interests. One frequent request from attendees however was to find others based on *complementary* interests. For example, a startup CEO may be looking for a patent lawyer, or an architect may be looking for a landscaper. Another common request from event organizers was to be able to provide questions around which to help people match. For example, at a music convention favorite music might be a valuable indicator of whom to match. In the future we will update our algorithms to explore these other forms of matchmaking.

In the heyday of Web 2.0, with the prevalence of online social networking and user-generated content, there is a general sentiment to take the power of online social content and bring it back into our face-to-face interactions. Pathable provides one such tool, leveraging the power of online social media to facilitate strategic, face-to-face networking and community building at events.

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