How Offline Gatherings Affect Online Communities:
When Virtual Community Members “Meetup”

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Abstract

This paper builds off past studies of virtual community by illuminating the effect of offline gatherings (“meetups”) on physically dispersed virtual communities. While research to date has examined the way in which online interaction affects offline community, the question of how offline interaction affects online community has largely been ignored. On the one hand these offline gatherings may provide individual benefits for members as the development of multiplex relationships strengthens social ties leading to the creation of bonding social capital; however, these gatherings do not necessarily benefit the community at large as the resources found in weak ties (bridging social capital) may be sacrificed as meetup attendees favor interaction with one another to the detriment of those that do not attend meetups. Non-obtrusive analysis of over eight years of user activity data from a large, active online community suggests that the development of multiplex relationships enhances attendees’ engagement with the online community as a whole, strengthens meetup attendees’ ties to other attendees, and contributes to the creation of bonding social capital; however, weak ties with non-attendees may dissolve and bridging social capital may be sacrificed as meetup attendees favor interacting with other attendees over non-attendees.

Introduction
“...You mean there are real [members] living within spitting distance of me? This creepy Interweb business is definitely too close for comfort...I'm in.”
*Posted by DaShiv at 8:55 PM on June 16, 2004*

Relationships between virtual community members are not always confined to the virtual realm; rather, members often have pre-existing offline relationships with one another, or alternatively, form offline relationships after “meeting” online. While scholars have recognized the inadequacy of a research approach that is blind to the offline relations of online community members these studies have primarily investigated the effect online communication has on offline ties (see Wellman & Haythornthwaite, 2002). However, the question of how the formation of offline relationships affects online communities remains seldom asked, and as a result, unanswered. Despite the ubiquity of meetups, scholars have looked very narrowly on the social implications of this phenomenon. The question that has been posed is: how can the internet help people to form offline connections that would not otherwise have been formed?

This study’s findings shed light on the frequent practice of virtual community offline gatherings, referred to as “meetups” by many online communities, including that studied here. As people increasingly turn to “strangers” online for support and community at a time when the line between online and offline relations is decidedly blurred the way in which offline gatherings affect individuals and the community at large must be explored. Though past research has found that members who attend these gatherings often benefit from strengthened social ties and enhanced bonding and “alloy” social capital (Rheingold, 1993; Sander, 2005; Xie, 2008), the collective benefits of these gatherings are uncertain. It should not be assumed that meetups are beneficial to the community – rather, these gatherings may be detrimental to the community as

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1 The type of gatherings of interest here should not be confused with offline meetings arranged through websites such as Meetup.com. Sites such as these exist to facilitate offline interaction and may have limited online channels for interaction – the goal is find people to establish offline groups, not to interact virtually.
preferential attachments are formed between members who have met offline and the exchange of resources with weak social ties is sacrificed. Bridging social capital, embedded in weak ties, is important to both members individually and the community at large collectively. Members need weak ties in order to access novel, non-redundant information that is less likely obtained from strong ties that share mutual friends and are more likely to be like-minded, while the community as a whole benefits from the bridges that allow information to pass between clusters of members.

This paper addresses this overlooked question of how physically dispersed online communities, online communities that do not map directly onto delineated offline communities or spaces, are affected by offline meetings. Recognizing the transformative potential of this phenomenon this paper will address two broad questions:

1. How does attending a meetup affect members’ individual experience with the community?

2. How is the community at large affected by the occurrence of meetups?

These questions are addressed through analysis of online activity of members from a large, active, globally dispersed online community (N=34,117). It is hypothesized that offline meetings positively affect those members that participate in meetups as their engagement with the community increases and bonding social capital is created as a result of strengthened, multiplex relations; however this individual profit comes at the collective expense of the community as members who have formed multiplex relationships disproportionately exchange support with other meetup attendees, forming sub-communities that result in a sacrifice of weak ties and an accompanying loss of bridging social capital.
Literature Review

*Virtual Communities and Social Capital*

The term social capital refers to the “resources embedded in a social structure which are accessed and/or mobilized in purposive actions” (Lin, 2001, p.41). Social capital has been linked to many positive goods such as health (Kawachi, Kennedy, Lochner, and Prothrow-Stith, 1997), educational attainment (Putnam, 1995), and economic benefits (Knack and Keefer, 1997; Erikson, 2001). The internet has been both lauded for facilitating the accumulation of social capital and criticized for depleting this vital form of capital. Some have argued that online interaction detracts from interactions with co-located, physically present others while on the other side researchers argue that the internet is “particularly useful for keeping contact among friends who are socially and geographically dispersed” (Wellman, Haase, Witte & Hampton, 2001, p.450) and can facilitate connections with similar, geographically distant others (Culnan and Markus, 1987; Rheingold 1993, 2003).

*Bridging Versus Bonding Social Capital*

In his renowned work on the decline of Social Capital in America *Bowling Alone* (2000) Robert Putnam draws on a distinction between two types of social capital: *bonding* and *bridging*. This dichotomy distinguishes between the types of resources accessed through *weak ties* and *strong ties*. Bridging social capital is linked to weak ties, relationships characterized by less familiarity which stand in contrast to strong ties – close relationships such as those formed between family and tight friends. These strong ties are the source of bonding social capital.
Strong ties may provide more emotional support and substantial material support, while weak ties, those who do not run in the same circles or know all of the same people, are important sources of novel, non-redundant information such as information about job opportunities. This is the “strength of weak ties” Mark Granovetter famously wrote of in 1973.

**Multiplex Relationships**

A relationship exists between the strength of a tie and the number of channels through which the tie is maintained. A relationship that is characterized by multiple bases of interaction is a “multiplex” relationship (Kapferer, 1969). Kapferer suggests that multiplex ties are by definition strong ties because of the multiple bases of interaction; thus, a relationship that is maintained through both off- and online ties is stronger than an identical tie that exists solely offline – though Granovetter would warn that “the present definition [of tie strength] would show most multiplex ties to be strong but also allow for other possibilities” (p.1361).

More specifically, a relationship is characterized by *media* multiplexity if more than one medium (e.g. face-to-face (FtF), telephone, email) is used to maintain the relationship. The theory of media multiplexity argues that the stronger the tie between two people the more media they use to communicate with one another. In a series of social network studies on media use Haythornthwaite and colleagues found that stronger ties used more media to communicate than weaker ties (Haythornthwaite, 2005). These studies also found that introducing a new medium into a group converts *latent* ties (ties that are “technically possible but not yet activated”) into weak ties, while also disrupting those weak ties that already existed in the network (p.137). Haythornthwaite notes that “online groups may be particularly affected by such changes”
because maintaining relationships online requires more effort than maintaining offline relationships (p.138).

Meeting Up Offline

One such medium that can be introduced into a virtual community is FtF contact. Many researchers have documented the occurrence of relationships migrating from online to off-line (see Bruckman, 1993; Kendall, 2002; Parks and Floyd, 1996; Rheingold, 1993; Xie, 2008). Virtual communities can facilitate the formation of offline relationships between likeminded individuals who would never have found each other had it not been for the virtual community connecting them (Michaelson, 1996). While offline relationships are most likely to form between members of physically located virtual communities, members of physically dispersed virtual communities, though constrained, are sometimes able to meet in person as well, either by traveling to meet their online friend or by meeting offline with members of the community who live nearby. Parks and Floyd (1996) found 33% of relationships that began in internet usegroups migrated offline to FtF contact (N=176) while Xie (2008) found in a study of older Chinese internet users that FtF interactions helped convert relationships formed online from weak ties into strong ties.

Meeting Offline

In addition to organically developed one-on-one offline meetings that occur after two people have become close online (whether romantically involved or not), virtual communities often hold sanctioned “meetups” at which their members get together. Online community
meetups were documented as early as 1989 when members of the pioneering online community The WELL arranged to meet offline (Rheingold, 1993, 2000).

Today meetups are held by a variety of online communities – Yelpers (Yelp.com reviewers), Twitterers (Twitter.com users), and many smaller scale communities (such as the Diabetes Technology Blog) all arrange offline gatherings. Typically, meetups occur in a pre-arranged location – sometimes routinely scheduled, other times occurring sporadically – to connect online community members to one another in-person. As a general rule, meetups are broadcast to all members and are open to anyone who wishes to attend.

**Using the Internet to Form Offline Groups of Likeminded People**

In contrast to virtual community meetups in which established members meet offline some websites exist solely to connect individuals online so that they may form relationships offline. This broad category includes dating websites and sites such as Meetup.com which enable users to search by interest for a group that meets up in their geographic region. Because the site specifically enables users to find each other online so that they can meet offline, Williams, Weinberg, and Gordon (2004) refer to these communities that are formed through Meetup.com “e2f (electronic to face) communities.” Following U.S. Presidential candidate Howard Dean’s successful leveraging of the site in order to mobilize supports scholars studied the efficacy of Meetup.com as a campaign tool (Williams et al., 2004; Connors, 2005). Williams et al (2004) conclude that Meetup.com is an “effective” campaign tool due to the fact that “frequent participants donate more, volunteer more, express stronger support for the candidate, and are more likely to advocate that others work for the candidate” (p.16).
Noting that the founder of *Meetup.com* expressed his intention to create the site explicitly in order to help build social capital, Sander (2005) asked: can social capital be generated through meetups? Sander and Putnam theorize that *Meetup.com* is an example of “alloy social capital” which “interweaves online and real strands” (p.4). Sander and his team observed 40 meetings in the summer of 2004, and surveyed the attendees of 37 meetups (N=337). The findings indicate that meetups do in fact build social capital. Participants often met up with their *Meetup.com* acquaintances outside of these gatherings (29%), and made new friends (31%). Furthermore, Sander found that whether or not social capital was created through a *Meetup.com* facilitated gathering factored heavily into a member’s decision of whether or not to participate in subsequent gatherings.

*The Effect of Meeting Face-to-Face*

The effect of adding a FtF dimension to an utterly virtual relationship is largely unknown though, many computer mediated communication (CMC) theories lend insight into the social-psychological processes at work when meeting someone FtF for the first time. Some researchers have argued that gaining information about one’s physical appearance leads to a reduction in discomfort and results in increased feelings of affection (Storck & Sproull, 1995) while others have documented the experience of seeing a virtual friend for the first time as jarring and disconcerting. In an ethnographic study of the online forum the author calls BlueSky, Kendall (2002) found that most members who had met others offline described these FtF experiences as more “intense” than online contact and notes that these meetings are often said to be “uncomfortable” (p.162). Though there have been many studies on the effect of learning the
physical appearance of a potential romantic partner (see Jacobson, 1999), there have been few empirical studies on the way in which FtF contact impacts online behavior.

Research Questions and Hypotheses

While the role of virtual communities as potential sources of social capital has been recognized, the effect of offline meetups on virtual communities is uncertain. Accordingly, I ask how meetups affect members’ level of involvement in the community and their likelihood of becoming non-contributors, as well as to whom these members provide support. To date, research on virtual communities and social capital that has looked at online ties together with offline ties (rather than assuming exclusivity between these networks) has most often looked specifically at virtual communities that correspond or map on to neighborhoods or other physically located communities such as campuses (see Hampton and Wellman, 2003; Hampton, 2007; Ellison, Steinfield, & Lampe, 2007), while research on meetups has primarily focused on the way in which these virtual communities facilitate the formation of offline ties. In these cases the virtual community is just a means to an end – an offline relationship that may or may not be supplemented by online communication.

It is hypothesized here that meetup attendees are more active in the virtual community than non-attendees. First, because those who would want to meet members of the community offline likely make the choice to do so because they are already committed to the community, and secondly, because the development of multiplex relationships with their fellow members may encourage further engagement. Similarly, it is also expected that these members who choose
to attend meetups will be less likely to become non-contributors as time passes (to abandon the community).

Secondly, it is hypothesized that meetup attendees will become more attached to the community as a result of developing multiplex relations with those members they have met offline. Specifically, attendees will increase their involvement in the community, displayed by an increase in site activity, after attending their first meetup.

Lastly it is hypothesized that attendees will favor other meetup attendees, seen in a greater amount of interaction initiated with other meetup attendees at the expense of the community at large. That is, there will be a disproportionate amount of in-group commenting amongst those who have attended a meetup.

H1: Meetup attendees will be more active on the site than non-attendees.

H2: Attendees will be less likely to abandon the community than non-attendees.

H3: Attendees will increase their involvement in the community after attending a meetup for the first time.

H4: Attendees will favor interaction with other attendees after attending a meetup.

Methodology

To test these hypotheses I draw on approximately eight and a half years of longitudinal user activity data from the online community MetaFilter (MetaFilter.com). This particular community has been chosen for a variety of reasons: 1) MetaFilter is a firmly established community with significant tenure surpassing that of the vast majority of online communities. The community’s
tenure enables longitudinal analysis that could not be possible with any of the numerous nascent communities. 2) There is a high volume of user activity daily\(^2\) and a large membership base\(^3\). 3) Because the membership base is globally dispersed and is not organized around a singular interest (e.g. exercise, parenting) there is a high level of member diversity, strengthening the external validity of this research. In addition, MetaFilter has previously been the subject of scholarly attention as researchers have looked at such issues as class (Lawton, 2005), norms (Ali-Hasan, 2005), and cohesion (Silva, Goel & Mousavidin, 2009) in the MetaFilter community.

*MetaFilter*

MetaFilter.com is a large, active, geographically dispersed, English language online community in weblog format known as “MeFi” to its members (called “MeFites”). Originally organized around a single purpose, the site is now broken down into several “sub-sites,” each of which hosts a unique form of interaction between members. Understanding the various functions of each sub-site is essential to understanding the ways in which members utilize these sub-sites. Of particular importance in light of the research questions posed here, the sub-sites differ from one another in the nature of the exchange taking place between members. It is this author’s belief that because the nature of member interactions on each section of the site differs analysis should not by default consider the effect of meetups on the site as a whole, but also consider sub-sites individually.

- *MeFi.* MeFi is the sub-site on which users share links to external webpages of interest and discuss web-content. Users can post up to one link per day, and comment on others’

\(^2\) More than 90% of MetaFilter readers reported visiting the site more often than once per day. Source: “MetaFilter User Survey,” n.d.

\(^3\) There are 65,000 registered members to date. Source: “MetaFilter Wiki,” 2008
links as many times as desired. When founded MeFi was the sole component of *MetaFilter.com*. Though other sections have since been added, MeFi remains the front page of the site, the section users are defaulted to when accessing *MetaFilter.com*.

- **AskMe.** AskMe is the site’s Question & Answer forum which aims to “[query] the hive mind” (*ask.metafilter.com*). AskMe serves as a platform for the exchange of emotional and instrumental support amongst community members. Members are able to post a question on any topic they like, to which any other member may in turn respond in a comment. The type of support requested varies – some are looking for technical support (e.g. “How do I post images in the comments on the newest Facebook redesign?”), others look for relationship advice (e.g. “What steps did you take to find your partner in spite of social anxiety or severe shyness?”) or material support (e.g. “Can someone deliver a cupcake to my girlfriend’s L.A. hotel room?”).

- **MetaTalk.** On MetaTalk members discuss the community itself (i.e. provide “meta-commentary”); for example, discussing ways in which to improve the site’s usability or posing solutions to technical issues. MetaTalk also hosts the “MetaFilter Gatherings” discussion threads in which members organize meetups.

Because of the anonymity afforded to members, there is little demographic information known about the community. While members are able to populate a profile page with their

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4 A fourth section, MetaMusic, serves as a platform for members’ personal music projects. This sub-site is the least frequented portion of MetaFilter. MetaMusic user data was not included in the analysis (though it is publicly available), as this sub-site’s user base was not comparable to other sections. Additionally, organization around a specific topic (music) makes this sub-site stand apart from the other topically diverse sub-sites of interest here.
photograph and personal details many do not choose to do so. However, there are indications that the community is demographically diverse. In response to members’ own ruminations on the extent of homophily in the community, one member conducted a web-survey through the site using a convenience sample in 2005. The survey found that 68% of users were male, 73% resided in the United States, 23% were students and another 25% employed in the technology/communication field (N=436). The survey found that modal MeFite is a white male of 31 (SD=7.7) (“Big MetaFilter User Survey Results,” n.d.).

Meetups are methodically broadcast so that all users may attend. A calendar of upcoming and recent meetups is maintained by administrators which one can synch with their own personal calendars. When asked what purpose these offline meetups served one member responded:

The meetups are wide open excuses for people who know each other only in the online world of MeFi to get together and hang out in person. We had quite a few when I lived in Seattle and there was always a mix of people who knew each other [usually from former meetups] and new people who just dropped in. People often bring non-MeFi friends and partners. There's usually drinking – though there were many teetotalers in the MeFi Sea [MetaFilter Seattle] group – and food, and the obligatory shout-out choruses.

Those that do attend meetups spend a portion of their FtF time drawing up a list of names of members who, while not attending in person, are on the minds of those who are. This “shout-out” list is then photographed and posted to the meetup’s discussion thread so that non-attendees can see that their physical presence was missed.

Research Design
The study utilizes publicly accessible user activity data available for download on
*MetaFilter.com* (“MetaFilter Infodump,” 2008). These text files were used to create a database of
user activity that was subsequently analyzed using statistical analysis software. User activity data
from the site’s launch in 1999 through December 31, 2007 (approximately eight and a half years)
was analyzed.

User activity is broken down into “posts” and “comments.” Posts refer to a member’s
contribution that begins a discussion thread (i.e. starts a conversation, poses a question, shares a
hyperlink) while “comments” are those contributions that respond to “posts” (i.e. add to a
conversation, answer a question, comment on a hyperlink). A user’s “total activity” is equivalent
to the number of comments they have contributed *plus* the number of posts they have
contributed.

To establish which users attended meetups attendee lists for each individual meetup were
collected from the “MetaFilter Gatherings” category on MetaTalk. Meetup data was collected
from the first day the “Gatherings” category was added to the site in April, 2002 in order to
facilitate these meetups\(^5\). The attendee lists, created by the attendees themselves, are found
within the discussion threads categorized as “MetaFilter Gatherings,” which follow a naming
convention of place and date. Usernames were reported in these discussion threads by those who
attended the meetup, often as soon as one hour after a meetup concluded as those users who met-
up often went online immediately to discuss the gathering, as well as to post photographs from
the event on a popular online photo sharing website (often tagging users with both their screen
names and their “real names”). These photographs, as well as users’ comments, were used to
validate the user attendee lists.

\(^5\) While it is entirely possible that a small number of meetups occurred before this category was established, it is
unlikely that many meetups are unaccounted for as this category was added soon after these gatherings started
occurring.
Findings

“Feel free to drop on by. If we look like a group of slavering dorks, you can just walk in and walk right out again, we certainly don't know what you look like.”

*Posted by jessamyn at 9:11 AM on January 13, 2005*

*Meetup Frequency, Location, and Attendance*

During the period of analysis 322 meetups occurred (approximately five per month). These meetups took place in 81 unique locations, 36% of which were outside of the United States. At least one meetup was held on every continent with the exception of Antarctica, evidence that the meetup phenomenon is not unique to the United States. Meetups were predominantly held at night in bars and restaurants, though there were instances in which members hosted meetups at their homes.

On average six people attended each meetup – the size of meetups ranging from only two members to as many as 28 members. As expected the areas with the largest meetups on average were highly populated cities, as well as areas with a slightly younger, more educated, demographic (e.g. a “college town” such as Ithaca, NY).

New York City drew the largest crowd to a single meetup with 28 members. San Francisco, California came in a close second with a meetup as large as 27 members. Portland Oregon, London, England, and Las Vegas, Nevada additionally held meetups with at least 20 attendees. Though on the surface it may seem slightly surprising that Las Vegas held one of the most populated meetups, Las Vegas is a special case – two members who had met originally at a New York City meetup decided to wed in Las Vegas, inviting the community at large to join

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6 There were, sadly, cases when a single person showed up for a pre-arranged meetup, these cases were not recorded, as they did not result in FtF interaction between at least two members.
them in celebrating their marriage (a great testament to their devotion to the site, and to establishing offline connections).

New York City holds the title for the highest number of meetups held with 49 meetups, followed by San Francisco (22 meetups), London and Seattle (each with 17 meetups). Las Vegas is the location with the highest average number of attendees per meetup; however, this result is skewed by the aforementioned atypical “destination wedding” meetup.

Two percent of the population attended at least one meetup (N=34,117). Interestingly, only a slightly higher margin (4%) of the activated population as I am calling these users (users who contributed a comment or post to the community at least once since registering) attended at least one meetup (N=20,850).

Many users attended more than one meetup. Though the majority of attendees (57%) only attended a single meetup, a small minority (3%) attended as many as 10 or more. One attendee based in New York City attended 33 meetups. Of course, how often one attends meetups is partly dependent on their location as the proximity of other members influences whether or not meetups will be successful. Thus, it is unremarkable that the member who attended the most meetups lived in New York City where meetups most frequently occurred.

How Do Meetup Attendees Differ From Non-Attendees?

H1 states that meetup attendees will be more active contributors in the online community than non-attendees. This hypothesis was supported. Meetup attendees are more likely to have contributed to the site at least once, to be activated users, than are non-attendees. Ninety-seven percent of meetup attendees can be considered activated users, while only 60% of non-attendees contributed to the site at least once (see Table 1).
Table 1

<table>
<thead>
<tr>
<th></th>
<th>Non-Attendee</th>
<th>Attendee</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Activity</td>
<td>39.77</td>
<td>2.83</td>
<td>38.89</td>
</tr>
<tr>
<td>Some Activity</td>
<td>60.23</td>
<td>97.17</td>
<td>61.11</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>33305</td>
<td>812</td>
<td>34117</td>
</tr>
</tbody>
</table>

*Note. N=34117 χ²=454.981, d.f.=1, p<.001*

Furthermore, attendees’ average frequency of activity per day is significantly greater than non-attendees – this is true for both comments and posts together, as well as when each is considered separately (see Table 2). However, the difference between attendees’ and non-attendees’ posts to MeFi is not significant.
Table 2

Mean Number of Comments and Posts Per Day

<table>
<thead>
<tr>
<th>Site</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posts</td>
<td>Attendee</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.01</td>
</tr>
<tr>
<td>Comments</td>
<td>Attendee</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.09</td>
</tr>
<tr>
<td>All Activity</td>
<td>Attendee</td>
<td>0.91</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.10</td>
</tr>
<tr>
<td>AskMe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posts</td>
<td>Attendee</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.01</td>
</tr>
<tr>
<td>Comments</td>
<td>Attendee</td>
<td>0.27</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.04</td>
</tr>
<tr>
<td>All Activity</td>
<td>Attendee</td>
<td>0.29</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.05</td>
</tr>
<tr>
<td>MeFi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posts</td>
<td>Attendee</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.00</td>
</tr>
<tr>
<td>Comments</td>
<td>Attendee</td>
<td>0.42</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.04</td>
</tr>
<tr>
<td>All Activity</td>
<td>Attendee</td>
<td>0.44</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.05</td>
</tr>
<tr>
<td>Meta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posts</td>
<td>Attendee</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.00</td>
</tr>
<tr>
<td>Comments</td>
<td>Attendee</td>
<td>0.18</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.01</td>
</tr>
<tr>
<td>All Activity</td>
<td>Attendee</td>
<td>0.18</td>
</tr>
<tr>
<td></td>
<td>Non-Attendee</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Note. Numbers in superscript are p values (ANOVA); n=812 attendee, 33,305 non-attendee

Likelihood of Becoming a Non-Contributor

H2 states that meetup attendees will be less likely to stop contributing to the community all together in the sense that a smaller percentage of these members will abandon an active role
in the community\textsuperscript{7}. Here abandonment is operationalized as a lack of contribution to the site in the final three months of the data collection period.

Meetup attendees are significantly less likely to have abandoned a contributor role. Looking at all activated users (those who contributed at least one post or comment after registering), attendees’ mean site activity was 20 posts or comments over the three month period (N=789; SD=77.7), whereas non-attendees only contributed one post or comment on average over this period (N=20,061; SD=20.0). This effect was significant for each individual section of the site as well as for the entire site (see Table 5).

\textsuperscript{7} Abandoning a contributor role is not equated with no longer visiting the site as these members may continue to exist as “lurkers,” those who visit the site and read others’ contributions without actively participating; however, these community members have abandoned the community in the sense that they no longer interact with other users on the site.
Table 3
Percent of Once-Active Members Not Contributing October - December, 2007

<table>
<thead>
<tr>
<th>Site</th>
<th>Attendance</th>
<th>% Non-contributors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not attend meetup</td>
<td>97.49</td>
<td></td>
</tr>
<tr>
<td>Attended meetup</td>
<td>2.51</td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not attend meetup</td>
<td>97.06</td>
<td></td>
</tr>
<tr>
<td>Attended meetup</td>
<td>2.94</td>
<td></td>
</tr>
<tr>
<td>Total Activity</td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Attended meetup</td>
<td>2.18</td>
<td></td>
</tr>
<tr>
<td>Ask Me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not attend meetup</td>
<td>96.87</td>
<td></td>
</tr>
<tr>
<td>Attended meetup</td>
<td>3.13</td>
<td></td>
</tr>
<tr>
<td>MeFi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not attend meetup</td>
<td>97.16</td>
<td></td>
</tr>
<tr>
<td>Attended meetup</td>
<td>2.84</td>
<td></td>
</tr>
<tr>
<td>MetaTalk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not attend meetup</td>
<td>97.37</td>
<td></td>
</tr>
<tr>
<td>Attended meetup</td>
<td>2.63</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* N=789 Attendees, 20,061 non-attendees

Of all registered users, once-active or not, five percent of those who did not attend any meetups remained a contributor by the end of 2007. In contrast, 46% of attendees were contributors during this time period (N=33,209).

*Meetups and Engagement in the Community*
H3 posits that the experience of attending a meetup leads one to become more engaged in the online community, evidenced by an increase in contributions to the site after attending a meetup for the first time.

The difference between attendees’ daily activity before attending a meetup for the first time and their activity after attending a meetup is not significantly distinguishable from zero, i.e. there was no significant increase or decrease in activity as a result of attending a meetup (t=.005, d.f.=34116, p=.996). However, when sub-sites are considered individually, and commenting and posting activity differentiated, effects of meetup attendance emerge (see Table 4).

While there was no significant change in the quantity of contributions to MetaTalk, there was a statistically significant increase in activity on AskMe, both for activity overall (p<.001) and for comments and posts individually (p<.001). There was also a relationship between a decrease in activity on the MeFi section of this site and meetup attendance that approaches significance (p<.056).
Table 4

*Change in Activity Per Day Following Meetup Attendance*

<table>
<thead>
<tr>
<th>Site</th>
<th>Type of Activity</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Posts</td>
<td>1.29&lt;sup&gt;0.000&lt;/sup&gt;</td>
<td>3.37</td>
</tr>
<tr>
<td></td>
<td>Comments</td>
<td>-1.29&lt;sup&gt;1.186&lt;/sup&gt;</td>
<td>27.36</td>
</tr>
<tr>
<td></td>
<td>Total Activity</td>
<td>0.01&lt;sup&gt;1.996&lt;/sup&gt;</td>
<td>29.06</td>
</tr>
<tr>
<td>AskMe</td>
<td>Posts</td>
<td>0.03&lt;sup&gt;0.000&lt;/sup&gt;</td>
<td>0.24</td>
</tr>
<tr>
<td></td>
<td>Comments</td>
<td>0.45&lt;sup&gt;0.000&lt;/sup&gt;</td>
<td>1.77</td>
</tr>
<tr>
<td></td>
<td>Total Activity</td>
<td>0.48&lt;sup&gt;0.000&lt;/sup&gt;</td>
<td>1.98</td>
</tr>
<tr>
<td>MeFi</td>
<td>Posts</td>
<td>-0.08&lt;sup&gt;0.093&lt;/sup&gt;</td>
<td>1.28</td>
</tr>
<tr>
<td></td>
<td>Comments</td>
<td>-1.67&lt;sup&gt;0.057&lt;/sup&gt;</td>
<td>24.59</td>
</tr>
<tr>
<td></td>
<td>Total Activity</td>
<td>-1.74&lt;sup&gt;0.056&lt;/sup&gt;</td>
<td>25.57</td>
</tr>
<tr>
<td>Meta</td>
<td>Comments</td>
<td>-0.07&lt;sup&gt;0.587&lt;/sup&gt;</td>
<td>3.49</td>
</tr>
<tr>
<td></td>
<td>Posts</td>
<td>-0.03&lt;sup&gt;0.079&lt;/sup&gt;</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td>Total Activity</td>
<td>-0.09&lt;sup&gt;0.499&lt;/sup&gt;</td>
<td>3.86</td>
</tr>
</tbody>
</table>

*Note.* Numbers in superscript are p values (T-Test); n=789 activated meetup attendees

*Do Attendees Favor Other Attendees Online?*

H4 predicted that members who attended meetups would favor interaction with other members who have attended meetups. This hypothesis was supported, as the difference between the percent of comments attendees contributed to other attendees daily before attending a meetup and the percent of comments attendees contributed to attendees daily after attending a meetup was statistically distinguishable from zero (see Table 5). For the entire site, the mean difference between the percent of comments contributed before versus after the first meetup was .032 comments per day (p<.005).
When site-sections are examined independently we see that for all sections the difference was significantly distinguishable from zero with the exception of the AskMe sub-site (Mean=.005, p=.547).

<table>
<thead>
<tr>
<th>Site</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Site</td>
<td>.032^0.00</td>
<td>.176</td>
</tr>
<tr>
<td>AskMe</td>
<td>.005^5.47</td>
<td>.229</td>
</tr>
<tr>
<td>MeFi</td>
<td>.034^0.00</td>
<td>.216</td>
</tr>
<tr>
<td>Meta</td>
<td>.036^0.04</td>
<td>.346</td>
</tr>
</tbody>
</table>

*Note. Numbers in superscript are p values (T-Test); n=789 activated meetup attendees*

Discussion

The goal of this study was to explore the way in which virtual community meetups affect those members who attend them, and how the virtual community at large is affected by FtF meetups. Particular consideration is given to the way in which members’ social capital is affected by the introduction of this medium of communication. While offline meetups have been shown to strengthen the ties of those who participate in them, those who meet other members offline, I ask how the network of weak ties will be affected by this sub-group’s strengthened ties.

Four hypotheses were proposed, the first concerning whether or not attendees and non-attendees differed in their virtual community activities. The next set of hypotheses applies to the
effect of meetups on attendees individually. How does attending a meetup affect a member’s engagement with the community at large? Will he increase his involvement in the community as a result of forming FtF relationships with community members? Similarly, will he be less likely to stop contributing to the site?

The last hypothesis tested whether or not those who attended meetups favored other attendees at the expense of non-attendees as a result of FtF contact. To test this hypothesis a t-test was performed on the difference between the percent of attendees’ daily comments addressed to other attendees before, and the percent of attendees’ daily comments addressing other attendees after attending their first meetup.

In addition to analyzing user behavior on the site as a whole, the individual sub-sites of Metafilter.com were also considered individually. This was done because the nature of the interactions taking place differed from sub-site to sub-site. For example, on the MeFi site members discussed web-content external to Metafilter.com (e.g. a news item or a new video on YouTube.com) while on the AskMe site members answer one another’s questions with topics ranging from the most impersonal advice on which computer software to buy to deeply personal relationship advice.

The findings indicate that attendees are more active on the site than non-attendees. Meetup attendees are more likely to have contributed to the site, in the form of either a post or comment, at least once after registering to become a member. Furthermore, attendees’ average daily frequency of activity is significantly greater than non-attendees – this is true for both comments and posts together as well as for each separately. However, the difference between attendees and non-attendees posts to the MeFi sub-site, that section of the site on which one
Virtual Community Meetups

posts links to web content external to *Metafilter.com* to share with the community, is not significant.

Furthermore, attending a meetup positively impacts members’ engagement with the community as a whole. Meetup attendees, those who have a FtF orientation with members of the community, are significantly less likely to abandon the community – to stop contributing either posts or comments. This effect was significant for the site as a whole, as well as each sub-section individually.

Attendees also increase their daily contributions to certain sub-sites after attending a meetup for the first time, but not on the site as a whole. There was no significant increase or decrease in entire site activity. However, when sub-sites are examined individually and comments and posts differentiated, effects of meetup attendance emerge. There was a significant increase in activity on AskMe, the main support swapping sub-site, as a result of meetup attendance. Further, there was a decrease in activity on the MeFi sub-site approaching significance.

The data suggests that the development of multiplex relationships made one more likely to engage in the section of the site on which support is exchanged (AskMe), but not more likely to increase activity for those sections of the site on which little support is exchanged. Potentially, the decrease on the MeFi section coupled with the increase on AskMe displays attendees’ preference for a more support based, more personal interaction as a result of establishing offline ties.

Lastly, findings indicate that after going to a meetup attendees favor interaction with the sub-group that has also attended meetups. The difference between the percentage of comments attendees contributed to other attendees daily before attending a meetup and the percentage of
comments attendees contributed to daily after attending a meetup was statistically
distinguishable from zero. However, when sub-sections of the site are considered individually
insignificance emerges for the AskMe sub-site; that is, there was a change in activity for all sub-
sections with the exception of AskMe.

This finding, that attendees favor those that also attend meetups, has implications for the
social capital embedded in members’ networks. While the benefits of meetups to the individual
are evident (greater engagement with the community evidenced by a smaller likelihood of
abandonment and an increase in site activity), the community as a whole may not benefit from
the self-serving in-group activity of the meetup attendees. As these attendees meet other
members offline they strengthen these relationships. The theory of media multiplexity states that
the greater the tie strength, the greater number of media used to maintain the relationships;
accordingly, by virtue of an additional medium of communication meetup attendees strengthen
their relationships with those they meet. Latent tie theory predicts that as a new medium is
introduced into a group (in this case FtF meetings) weak ties are affected. This is evident here as
those weaker ties that attendees had suffer as they steer their comments (i.e. their resources and
their support) towards other members of this exclusive in-group at the expense of non-attendees.

It should be noted that there is greater opportunity for attendees to comment on other
attendees’ posts than to comment on non-attendees posts, as it has been shown that attendees are
more likely to post than non-attendees (if non-attendees don’t post, how can they receive a
response?). Thus, the increase in posts resulting from meetup attendance is affecting the chance
to receive a comment. The finding that attendees are more active on the site than non-attendees,
together with the finding that meetup attendance enhances members’ engagement with the site
suggests that while meetups may have benefits for individuals, it may be that “the rich get
richer” as those that were already gaining social capital from the site are those that will be most likely to attend meetups and, in turn, become more involved in the site, reaping additional benefits.

Lastly, it is also important to note that only two communication channels were analyzed in this study – both public: interaction within the forum of the virtual community, and FtF interaction at meetups organized and broadcasted on the site. It is very possible that members of the community were interacting with one another through other channels, via additional media such as email and private messaging. Most likely, these additional communication channels were utilized most by those members who met FtF, as the theory of media multiplexity suggests that the stronger the tie, the higher quantity of media are utilized to maintain the relationship. As a result, the true strength of these FtF ties may not be evident in an analysis that examines behavior within the virtual community.
References


