

Copyright Warning & Restrictions

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material.

Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be “used for any purpose other than private study, scholarship, or research.” If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of “fair use” that user may be liable for copyright infringement,

This institution reserves the right to refuse to accept a copying order if, in its judgment, fulfillment of the order would involve violation of copyright law.

Please Note: The author retains the copyright while the New Jersey Institute of Technology reserves the right to distribute this thesis or dissertation

Printing note: If you do not wish to print this page, then select “Pages from: first page # to: last page #” on the print dialog screen

The Van Houten library has removed some of the personal information and all signatures from the approval page and biographical sketches of theses and dissertations in order to protect the identity of NJIT graduates and faculty.

ABSTRACT

VIRTUAL SMARTS - OPTIMIZING THE COALESCING OF PEOPLE FOR COLLECTIVE ACTION WITHIN URBAN COMMUNITIES

by
Stephen Thomas Ricken

Despite the importance of individuals coming together for social group-activities (e.g., pick-up volleyball), the process by which such groups coalesce is poorly understood, and as a consequence is poorly supported by technology. This is despite the emergence of Event-Based Social Network (EBSN) technologies that are specifically designed to assist group coalescing for social activities. Existing theories focus on group development in terms of norms and types, rather than the processes involved in initial group coalescence. This dissertation addresses this gap in the literature through four studies focusing on understanding the coalescing process for interest-based group activities within urban environments and a design of a mobile user interface aimed at increasing collective action initiation.

Study One examined how well people's needs for social group activity engagement are being met in the context of an urban university. The analysis of 60 interviews highlighted how participants considered activity leadership a burden, where it took too much time and was difficult to find others. Study Two (a mixed methods study of 763 Meetup.com groups in the NY/NJ/CT Tri-State) and Study Three (A survey of 511 students at an urban university) corroborated results that attendance and participation at the first meeting determined long-term success by giving the organizer belief that their group would be successful.

Study Four involved the design and testing of a mobile group coalescing user-interface (UI) that featured several “lightweight” coalescing features hypothesized to reduce the challenges to organizing. Results from the 2000 participant study indicated that the UI increased the likelihood non-leaders would initiate collective action. The models generated from the study data suggested that a new theory is required to understand the role of critical mass in collective action.

The combination of these investigations into interest-based group activity coalescing uncovered important gaps in the current knowledge of interest-based group activity coalescing and collective action initiation. This work extends our knowledge about how to improve coalescing support and encourage non-leaders to initiate activity coalescing, which will lead to a greater number of activities forming. Finally, this research uncovers the need to redefine collective action and critical mass models to include motivation to organize and its moderators.

**VIRTUAL SMARTS - OPTIMIZING THE COALESCING OF PEOPLE FOR
COLLECTIVE ACTION WITHIN URBAN COMMUNITIES**

by
Stephen Thomas Ricken

**A Dissertation
Submitted to the Faculty of
New Jersey Institute of Technology
in Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy in Information Systems**

Department of Information Systems

May 2018

Copyright © 2018 by Stephen Thomas Ricken

ALL RIGHTS RESERVED

APPROVAL PAGE

**VIRTUAL SMARTS - OPTIMIZING THE COALESCING OF PEOPLE FOR
COLLECTIVE ACTION WITHIN URBAN COMMUNITIES**

Stephen Thomas Ricken

Dr. Quentin Jones, Dissertation Advisor
Associate Professor of Information Systems, NJIT

Date

Dr. Michael Bieber, Committee Member
Professor of Information Systems, NJIT

Date

Dr. Starr Roxanne Hiltz, Committee Member
Distinguished Professor, Emerita of Information Systems, NJIT

Date

Dr. Andrew Klobucar, Committee Member
Associate Professor of English, NJIT

Date

Dr. Brian Butler, External Committee Member
Associate Professor, College of Information Studies, University of Maryland

Date

BIOGRAPHICAL SKETCH

Author: Stephen Thomas Ricken

Degree: Doctor of Philosophy

Date: May 2018

Undergraduate and Graduate Education:

- Doctor of Philosophy in Information Systems, New Jersey Institute of Technology, Newark, NJ, 2018
- Bachelor of Science in Human Computer Interaction, New Jersey Institute of Technology, Newark, NJ, 2007

Major: Human Centered Computing

Presentations and Publications:

Ricken, S., Barkhuus, L., Jones, Q. 2017. Going Online to Meet Offline: Organizational Practices of Social Activities through Meetup. In Proceedings of the 8th International Conference on Communities and Technologies (C&T '17). ACM, Troyes, France.

Jones, Q. J., Ricken, S. and Laws, N. "System and method for facilitating user-generated content relating to social networks." U.S. Patent No. 9,424,549. 23 Aug. 2016.

Ricken, S., Grandhi, S., Zytka, D., Hiltz, S.R., and Jones, Q. 2014. Anyone for Bowling?: Coalescing for Shared Activities. In Proceedings of the 18th International Conference on Supporting Group Work (GROUP '14). ACM, New York, NY, USA, 122-130. DOI=<http://dx.doi.org/10.1145/2660398.2660421>.

Ricken, S., Schuler, R., Grandhi, S., Jones, Q. (2010). TellUsWho: Guided Social Network Data Collection. Proceedings of the 43rd Annual Hawaii International Conference on System Sciences. 1-10.

Raban, D. R., et al. "Hello stranger! A study of introductory communication structure and social match success." System Sciences, 2009. HICSS'09. 42nd Hawaii International Conference on. IEEE, 2009.

*This work is dedicated to my parents,
who have stood by my side no matter how difficult the journey.*

ACKNOWLEDGMENT

Thank you to Professor Quentin Jones, my dissertation advisor. Without you, none of this would be possible. Thank you to my committee members, Dr. Michael Bieber, Dr. Roxanne Hiltz, Dr. Andrew Koklubar, and Dr. Brian Butler, for being supportive and mentoring me through this process.

Thanks goes to all my colleagues at NJIT who helped with the studies, including members of SmartCampus and the Connections Lab. Thank you to Rich Schuler for helping me finish the final pieces of the Ph.D. puzzle.

I especially want to thank my parents who supported me in every way. Thank you Dani, who has been very patient with me throughout this process, and always willing to give me comfort and solace during my toughest moments.

This material is based upon work supported by the National Science Foundation under Grant No. 1422696. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

TABLE OF CONTENTS

Chapter	Page
1 INTRODUCTION	1
1.1 Research Problem	1
1.2 Objective	3
1.3 Broader Impacts	3
2 INTEREST-BASED ACTIVITY GROUPS	5
2.1 Definitions	6
2.1.1 What is a Group?	6
2.1.2 What is an Interest Group?	8
2.2 The Theory of Collective Action	9
2.2.1 Agreed Upon Collective Action Goals	11
2.2.2 Critical Mass as Leadership in Group Formation	12
2.2.3 Collective Action in Networks	14
2.3 Leadership	16
2.3.1 Shared Leadership and Empowerment Theory	17
2.3.2 Social Facilitation and Social Loafing	20
3 THE GROUP FORMATION PROCESS	24
3.1 Tuckman's Stages of Group Development	25
3.2 Mutual Awareness and Discovery	27
3.3 Introductions	30

TABLE OF CONTENTS
(Continued)

Chapter	Page
3.4 Membership and Social Identity	33
4 CURRENT CYBERINFRASTRUCTURE FOR COALESCING INTEREST GROUPS	36
4.1 What are Social Network Systems?	36
4.1.1 Social Network Systems	36
4.1.2 Event-based Social Networks	37
4.1.3 Meetup	39
4.1.4 Virtual Communities of Practice	41
4.2 Summary	42
5 RESEARCH PLAN	43
5.1 Study One	43
5.2 Study Two	44
5.3 Study Three	45
5.4 Study Four	45
6 EXAMINATION OF GROUP ACTIVITY PARTICIPATION OF STUDENTS ...	47
6.1 Method	48
6.2 Participants, Data Collection, and Analysis	49
6.3 Results	50
6.3.1 Missing Opportunities	51
6.3.2 There is No Easy Way to Find Others Who Share the Same Interest	51
6.3.3 Perceived Time Commitment	52

TABLE OF CONTENTS
(Continued)

Chapter	Page
6.3.4 Previous Experiences Affect Later Participation	53
6.3.5 Information Not Getting to Target Audience	54
6.3.6 The Burden of Leadership	56
6.4 Limitations	57
6.5 Discussion	58
6.5.1 Lack of Optimal Social Activity Engagement	58
6.5.2 Process Challenges of Social Activity Engagement	60
6.5.3 Technological Challenges of Social Activity Engagement	61
6.5.4 Design Considerations	62
6.6 Summary	64
7 A STUDY OF LEADERSHIP SUPPORT THROUGH GROUP COALESCING SYSTEMS	66
7.1 Research Questions and Hypotheses	66
7.2 Method	67
7.3 Participants, Data Collection, and Analysis	68
7.4 Results	70
7.4.1 Observational Results	70
7.4.2 Survey Results	71
7.4.3 Interview Results	78
7.4.4 Success of a Group	80
7.4.5 Activities Outside the Group	82

TABLE OF CONTENTS
(Continued)

Chapter	Page
7.4.6 The Work that Goes into Organization	83
7.4.7 Organizers' View of Themselves as Organizers	84
7.4.8 Co-organization	85
7.4.9 The Advantages of the Social Technology	86
7.4.10 Why Choose Meetup as a Tool?	86
7.5 Discussion	87
7.6 Limitations	91
7.7 Conclusion	91
7.8 Summary	93
8 EXAMINING COLLECTIVE ACTION BEHAVIORS OF STUDENT ORGANIZERS	94
8.1 Research Questions and Hypotheses	95
8.2 Method	96
8.2.1 Survey Method	96
8.2.2 Survey Creation Method	98
8.3 Participants, Data Collection, and Analysis	99
8.3.1 Descriptive Statistics	99
8.4 Results	102
8.5 Limitations	116
8.6 Conclusions	116
8.6.1 Wants and Needs of the Community	116

TABLE OF CONTENTS
(Continued)

Chapter	Page
8.6.2 Success: A Summary	118
8.6.3 Challenges to Organizing	118
8.7 Summary	119
9 TESTING COLLECTIVE ACTION INITIATION USING A GROUP COALESCING USER INTERFACE	121
9.1 Research Artifact	124
9.2 Research Questions and Hypotheses	126
9.2.1 Critical Mass as a Threshold Model	128
9.2.2 The Impact of Social Facilitation on Collective Action Initiation	129
9.2.3 Critical Mass as a Production Function	130
9.3 Method	131
9.3.1 Survey Creation Method	131
9.3.2 Survey Method and Measures of Variables	132
9.3.3 Questions Regarding the UI	134
9.4 Participants, Data Collection, and Analysis	139
9.5 Results	139
9.5.1 Social Facilitation	144
9.5.2 Modeling Critical Mass as a Threshold.....	144
9.5.3 The Effects of Social Facilitation on Collective Action.....	146
9.5.4 Critical Mass as a Production Function	149
9.6 Limitations	152

TABLE OF CONTENTS
(Continued)

Chapter	Page
9.7 Conclusions	153
9.7.1 Critical Mass and Initiating Collective Action	155
9.7.2 Stable Market Theory and Empowerment Theory.....	157
10 DISCUSSION AND CONCLUSION	159
10.1 Study Summaries	160
10.1.1 Study One	160
10.1.2 Study Two	161
10.1.3 Study Three	163
10.1.4 Study Four	164
10.2 Overcoming Collective Action Initiation Challenges	166
10.2.1 Not Knowing the Shared Community Interest	166
10.2.2 A Single Individual is Responsible for Organizing an Activity	167
10.2.3 The Amount of Time and Effort Needed to Organize	168
10.2.4 Information Overload	169
10.3 Event-based Social Networks	171
10.3.1 What is an EBSN?	171
10.3.2 What Works	172
10.3.3 What Does Not Work.....	173
10.4 Conclusion	174

TABLE OF CONTENTS
(Continued)

Chapter	Page
10.5 Broader Impacts	175
10.6 Future Contributions	176
APPENDIX A IRB Approval and Consent Forms	178
APPENDIX B Study 1 Interview Guide	194
APPENDIX C Study 2 Guides and Analyses	199
APPENDIX D Study 3 Guide and Analyses	236
APPENDIX E Study 4 Guide and Analyses	259
REFERENCES	307

LIST OF TABLES

Table	Page
2.1 Types of Groups	10
7.1 Interview Participants	70
7.2 Observational Data Overview	71
7.3 Crosstabs of Attendance * Perceived Success	73
7.4 Crosstabs of Attendance * Exists 1 Month Later	74
7.5 Crosstabs of Perceived Success * Active Participation	75
7.6 Crosstabs of Exists 1 Month Later * Active Participation	76
7.7 Believing in a Successful Group and Longer-term Success	77
7.8 Participants' Rating of Work Involved	83
8.1 Study 3 Demographics	100
8.2 Activity Participation for Interest 1	101
8.3 Activity Participation for Interest 2	102
8.4 Activity Participation for Interest 3	102
8.5 How Successful ... The Activity Was? * How Many People Actually Came?	103
8.6 How Successful ... The Activity Was? * Was there active participation?	105
8.7 How Successful do you Feel the First Activity Was? * Based on the Outcome of your First Time Organizing - Did you Attempt to Organize Again? Crosstabs ...	107
8.8 Success * Organize Again (Interest 2) Crosstabs	109
8.9 Success * Organize Again (Interest 3) Crosstabs	110

LIST OF TABLES
(Continued)

Table	Page
8.10 Information Overload, Interest 1	112
8.11 Information Overload, Interest 2	113
8.12 Information Overload, Interest 3	114
8.13 A List of Participant’s Top 20 Frequently Mentioned Interests (From the Top 3 Interest Question)	117
8.14 Reasons Participants do not Organize	119
9.1 Potential Screen Conditions	134
9.2 Number of Participants in Each Condition	140
9.3 Participant Demographics	141
9.4 The Average Min, Ideal, and Max Number of People Participants Said They Needed for Their Activity	141
9.5 Would You Want to be Notified When Others are Interested?	142
9.6 Would You Want to be Updated When There are Updates to Brainstorming?	142
9.7 Would You Want to be Notified of Activity Suggestions?	142
9.8 Would you Post to Brainstorming?	143
9.9 Would you Want to Learn More About This Activity?	143
9.10 Would you Attend This Activity?	143
9.11 Would you Organize an Activity?	143
9.12 Percentages of Subjects that Agreed to Organize an Activity, Delineated by Organizing History	144
9.13 Final Regression Model for H1	146

LIST OF TABLES
(Continued)

Table	Page
9.14 Omnibus Tests of Model Coefficients	146
9.15 Model Summary	146
9.16 Final Regression Model for H2.....	148
9.17 Omnibus Tests of Model Coefficients	149
9.18 Model Summary	149
9.19 Final Regression Model for H3	151
9.20 Omnibus Tests of Model Coefficients	151
9.21 Model Summary	152

LIST OF FIGURES

Figure	Page
2.1 Yerkes-Dodson arousal model	21
3.1 Tuckman's stages of group development	26
3.2 Social network recommendations	29
6.1 Wall flyer advertising an activity	54
6.2 Missed opportunity due to lack of awareness	55
6.3 Looking for soccer players on Facebook	56
7.1 “New” flag on Meetup.com group	69
9.1 Prototype coalescing UI	126
9.2 Activity examples given to participants	132
9.3 Scenario given to participants	135
9.4 Notify icon usage	135
9.5 Notification of brainstorming activity	136
9.6 Post a message to brainstorming	136
9.7 Notification of activity suggestions	137
9.8 Found out more about activity	137
9.9 Attend activity	138
9.10 Organize activity	138
9.11 Meetup entices users to start a new group with the number of interested people	155
10.1 An overabundance of Meetup email advertisements	170
10.2 Eventbrite packages show a single organizer	172

CHAPTER 1

INTRODUCTION

1.1 Research Problem

Humans are fundamentally social beings, and routinely engage in a range of social group-activities. Social interactions lead to societal benefits— individuals’ psychological well-being (e.g., self-esteem and satisfaction with life) [7, 50] and positive community outcomes (e.g., help during crises, lower crime rates, and more efficient financial markets) [1]. Research has revealed that during the second half of the twentieth century U.S. citizens’ participation in social groups waned; causing social capital to decline [79]. The advent of the television, two-career families, and other societal changes meant that fewer people socialized in pubs or joined clubs. The widespread use and adoption of social media may have reversed this trend [41, 103, 106] – as people are using the Internet to seek out social groups (e.g., discussion forums), philanthropies, and community volunteer opportunities. Despite such advances in virtual organizing, we have a limited understanding of how to design cyberinfrastructure that optimizes the emergence of interest groups within a diverse community (e.g., a community of people from different backgrounds, ethnicities, and ideals who coexist).

This research sets out to show that the processes in which people coalesce into emerging groups using current technologies are relatively haphazard, where systems do not supply users with essential tools and support for finding, joining, and participating in groups. This research proposes that current cyberinfrastructure fails to address four

interrelated factors that affect group coalescing:

There is often a lack of awareness among community members about the existence of the critical mass of people necessary for group action [18, 98, 132]. Pluralistic ignorance (e.g., the majority privately accept a norm, but assume that most others do not accept it) creates a major downfall – people believe no one else is willing to participate in activities based on their interest, when in truth many others may be available. People also experience collective information paucity (a lack of knowledge of the others who share the same interest) where they believe others share an interest, but they don't know who those people are or how to find them;

People's limited cognitive capacity often results in their ignoring or failing to discover relevant group information. Today, many of us are overloaded [58] with email, texts and other messages, in which information about groups we could become involved with is just one more item of questionable relevance. Similarly, the effort involved in searching for relevant groups with questionable chances of success is often too much for individuals.

Groups fail to materialize because of leadership challenges [22]. One main challenge is that most individuals do not step forward to take on the leadership role. People who are natural leaders organize events, but the majority of individuals are non-leaders who have difficulty getting past the challenges of leadership. There are several leadership challenges to group formation. First, it is difficult to take individual responsibility to find others, advertise their group/activity, and organize events. Second, there is the work and time required for everything mentioned above. Due to the

challenges to coalescing leadership, individuals miss out on finding others who share their interest.

Third, the overall set of needs of the individuals in a community, and the needs of individual groups are not met - instead we have a first come, first to join process [46, 47]. For example, an individual student who needs a team for her senior year project is not able to systematically construct a team comprised of diverse individuals with the skill sets that best complement her own.

The outcome of these three challenges is that people routinely miss out on relevant opportunities to participate, groups fail to form, and people are mismatched to interest groups. This in turn, results in suboptimal productivity, learning, and social capital formation.

1.2 Objective

The aim of this research is to understand the way in which people engage in organizing interest-based group activities. More precisely, it is to understand the challenges that deter people from organizing others for interest-based group activities. Once there is a clear understanding of the behaviors of leadership, a prototype mobile app UI will be designed to reduce the impact of these challenges, in order to increase the likelihood a non-leader will initiate the coalescing process. Finally, this research focuses on surveying people using a prototype with lightweight coalescing features and evaluate collective action initiation.

1.3 Broader Impacts

Outcomes of the proposed research aim at improving people's ability to form social groups with relevant people nearby and potentially build new social ties and create social capital. Overcoming the challenges to organize has the potential for entirely new possibilities of social activity coalescing, which enable more people to create valuable relationships. Building new social ties is an important concern as individuals embedded in richly connected social environments are, for example, better able to handle personal setbacks such as financial failures and illness and to provide social support for others.

Contributions of this work include a deeper understanding of the coalescing process, and proposed methods to encourage non-leaders to begin the coalescing process with others who share a similar interest.

CHAPTER 2

INTEREST-BASED ACTIVITY GROUPS

Interest-based activity groups form within communities for people to meet and enjoy shared interests. Forming interest-based activity groups can be thought of as individuals coming together to accomplish a shared goal (e.g., to participate in a specific activity or set of activities). The idea of shared goals is taken from Olson's *The Logic of Collective Action*, a theory that people would not work toward the public good unless there were private incentives [102]. Collective Action [99, 100] theory builds upon several social theories to describe the necessary actions needed by individuals and groups to achieve a goal.

This chapter defines what an interest-based activity group is. We begin by defining *group* and *interest group* based on previous literature. Interest-based activity groups need two important things to form and carry out activities, a critical mass of individuals and a collective goal to work towards. The next section explains these needs, as addressed by Collective Action theory and Critical Mass theory. We follow this with defining leadership through collective action. The final section in this chapter relates to the three steps in the process of group formation: Mutual awareness, introductions, and membership. The literature reviewed in this chapter on what interest-based activity groups are and how they are formed, gives a theoretical basis for research on challenges people face in the coalescing process.

2.1 Definitions

2.1.1 What is a Group?

Groups have been classically defined as a number of individuals located close together or classed together. Sociological research indicates that groups are defined as not just physically embodied by a cluster of two or more individuals, but through a process of classification of the self - identifying oneself with a group that matches his or her view (in-group), and reinforcing this identity partly through excluding themselves from groups they have no affinity for (out-groups). This definition of “group” has been formed through the social identity approach, developed from social identity theory (SIT) [4], self-categorization theory (SCT) [62, 148] and a large body of empirical research that these theories have stimulated. Group membership leads to the likelihood of conformity to “group norms”, the shared view (interest, commonality, unsaid rules) within a group [4]. Group norms can be developed by and from the actions of prototypical representatives of the group (e.g., leaders, founders).

Identification of in- and out- groups forms social boundaries, or, who is and is not part of the social group [29, 145]. Social boundaries enforce group norms and identification by displaying not only what is acceptable to the group, but also who is acceptable. These boundaries can be permeable [40, 41], which allows people to enter and leave these networks, as well as allowing people to establish themselves in multiple groups or hierarchies. For example, one may be a member of an organization, as well as a member of a team within that organization. In this case, the wider loyalty (and, therefore, group norms) does not typically take precedence over the loyalty to one's immediate

group [29].

Research shows that these same boundaries exist within online discussion communities (e.g., e-mail distribution lists, web forums, social networking sites, social discovery apps), defined as content boundaries [49, 152]. Like social identity, groups/communities form absolute boundaries (the material and discussions that are and are not part of the community) and relative boundaries (how closely related the content associated with the focal community is to content in other communities). These boundaries can be enforced through cyberinfrastructure, as communities' names and addresses (web URLs) can pose as identifiers of the community, or enforced by the group/community themselves (through "group norms", FAQs, group rules) [23].

Groups allow individuals to achieve collectively what would be more difficult or impossible to achieve individually [99]. The outcomes they seek may be social (have friends), or utilitarian (run a business or cure cancer), may be localized in physical space (play volleyball) or in virtual space (participate in a World of Warcraft raid group). Groups can form and exist both physically, online, or a combination of both (a group with an online presence and physical meetings/activities). This research is focused on improving the social life of students by increasing the number of interest-based group activities that exist in a college community. For this reason, the proposed research will focus on groups that at least occasionally meet in co-located physical space (in particular, on-site at an urban campus), but we believe the work will have implications for the formation and coalescence of all types of groups.

2.1.2 What is an Interest Group?

For the purposes of this research, interest groups are defined by Merriam-Webster as “groups of people who identify with a specific interest (e.g., a hiking group has members who enjoy hiking)” [160]. Interest groups follow the same group principles as above, and fall into two categories: 1) social groups and 2) activity groups. Social groups have a critical mass of members (enough members to successfully be an associated group), but do not have a collective action goal (a goal shared amongst its members). (These two characteristics are explained later in this chapter). Social groups are "bond-based" [51], where personal social relations with specific group members drive individuals' membership. If these group members leave the group, then others will follow with them. An example of a social group is a Fraternity, where members are “brothers” and create life-long friendships with each other.

Activity groups are "identity-based" where individuals' membership is driven by the common theme of the group. Their loyalty is to the group rather than individual members within the group. Members of a sketching club (a group that meets to sketch landscapes and architecture) join because of the group topic. They continue to participate in the group not because of the other members, but because of the activities involved. There are some activity groups that are bond-based because they were started by a tight-knit group of friends. These groups are known to be harder for newcomers to join and integrate into because of the group members' strong bonds to each other [51].

The formation of interest-based activity groups needs affiliation (the processes by which individuals create, find, and/or join a group of compatible collaborators), as well as

convergence on shared goals (the processes by which individuals and groups negotiate, clarify, and market their goals) to exist. These two processes are orthogonal (as illustrated in Table 2.1), complementary (because groups are often unstable unless members are attracted both to each other *and* to their shared goals) and, we suspect, synergistic, because mutual attraction can facilitate the adoption of shared goals, and *vice versa*.

2.2 The Theory of Collective Action

The Theory of Collective Action [32, 84, 99, 102] hypothesizes that two conditions need to converge to set the stage for collective action: 1) a critical mass of members; and 2) a shared vision of collective action (collective action goal) [8]. If only the former condition is met, an ineffectual "all talk, no action" group may result (e.g., online cat lover community). Critical mass will be defined in depth later in this chapter, but for now you must understand that a critical mass is a number of core individuals who provide the necessary resources to make a group form or activity to happen [99]. Most research in collective action has been in the domain of sociology where they focus on political injustice and social reform (e.g., communities coming together to build a park) [2]. Collective action also more broadly represents everyday activity coalescing, like forming a book club or pick-up basketball. If a collective action goal is articulated ("let's form a baseball team") but an inadequate cohort of members has been accrued, the group will have no chance of achieving its collective goal. When both conditions are met, the group has a chance of persisting and functioning effectively. This is illustrated in Table 2.1, where we seek to facilitate movements of individuals from the left to the right of the

table.

Table 2.1 Types of Groups

	No Shared Action-oriented Collective Action Goals	Shared Action Orientated Goals
No Group or Community Affiliation-Membership	Individuals in a community	Unaffiliated set of individuals engaged jointly in collective action
Group / Community Affiliation - membership	A unified group with individual goals	Action-oriented Group

Extensive literature on the economic and psychological conditions under which groups will organize for collective action [32, 84, 99, 102, 54] supports the notion that critical mass and shared goals are importantly linked and can be usefully manipulated. First, minor interventions can facilitate collective action: relatively simple instructions for example, can cause a group of walkers to walk in cadence with each other [89, 90]; subtle peer stimuli can produce striking acts of conformity, etc. Second, consensus formation benefits from both information exchange among group members (influence) and from "exit" of dissenting members (the tendency of those who disagree from an emerging consensus to withdraw) [65]. Finally, Gold and Sugden's [50] observation that the theoretically challenging prisoner's dilemmas and other "public good" puzzles can be rationally and optimally solved by agents who adopt the "team reasoning" stance ("we should" rather than "I should") illuminates the ways in which membership ("we") and collective goals ("should") are intertwined for successful collective action [147].

2.2.1 Agreed Upon Collective Action Goals

While many groups form an association using the process above, not all groups are considered action-oriented. Many groups form without having a collective goal, such as friend groups who meet to hang out together. Groups like this can also be evidenced on the Internet, such as communities of enthusiasts who come together on a web forum or discussion list to discuss topics of interest rather than have a call to action [83]. This section highlights collective action, where groups commit to agreed upon goals [129]. These goals are often called “we-intentions” [17]. We-intentions are specifically group-centric goals that everyone involved agrees to accomplish with the same motive.

For instance, if John and Sue agree to paint a house, but John intends on painting it blue while Sue intends on painting it red, there is no we-intention. John and Sue must both agree to paint the house the same color to have a we-intention. While both may have their own individual intentions (painting the house to look good vs. helping resale value), as a group their intention is to see to it the house gets painted [147]. The reason that we-intentions cannot be reduced to I-intentions, even I-intentions supplemented with beliefs about mutual beliefs, can be state quite generally: the notion of a we-intention, of collective intentionality, implies the notion of cooperation [129]. Interest-based activity groups are categorized as action-oriented groups. The members of the group have an agreed-upon goal and intention to carry out that goal – hiking groups are formed with the intention to hike, gathering members on nearby hiking trails or taking hiking trips.

2.2.2 Critical Mass as leadership in group formation

The tendency for people to come together and form groups is inherent in the structure of society; and the ways in which such groups take shape and evolve over time is a theme that runs through large parts of social science research. As mentioned in the section above, for collective action to take place, a critical mass of people needs to form.

Schelling, in his 1978 book, *Micromotives and Macrobehaviors* [127], adopts the term 'critical mass' from the phenomenon of atomic engineering. In an atomic bomb, radioactive decay causes neutrons to fly off uranium. Neutrons that smash into others will split, or else they will fly into 'empty space.' Having a piece of uranium the size of a 'critical mass,' allows half the neutrons to hit another, creating a self-sustaining situation. Having a larger piece of uranium will cause an explosive chain reaction, causing a nuclear explosion. Schelling uses this example to explain that people will make a decision based on the majority of others; a small group of people becomes the influential party for individuals. Granovetter (1978, p. 1420) used the word thresholds to explain a similar phenomenon [54]. "The key concept is that of "threshold": the number or proportion of others who must make one decision before a given actor does so; this is the point where net benefits begin to exceed net costs for that particular actor." Which explains the actions of an individual based on the decisions of those (the majority) around them.

Also in 1978, Hiltz and Turoff [57] used the term 'critical mass' to explain self-sustaining online communities. "Critical mass...has to do with both a minimum number of active participants and a minimum number of geographic locations. The minimum

seems to lie somewhere between 8 and 12 active participants in three or more geographic locations. Below this critical mass, there are not likely to be enough new messages or conference comments entered, so that there would not always be new items to receive and respond to when a member signed on. Above the minimum size and dispersion, enough activity and controversy is generated to motivate members to sign on frequently and to participate actively in the exchanges."

The term critical mass refers to a sufficient (small) number of individuals who adopt an idea or innovation so that the rate of adoption becomes self-sustaining and creates further growth. In the absence of a critical mass, the idea or innovation is not only unlikely to spread, but to be deserted altogether. Collective action takes into account the scale of resources and the returns attributed to the collective good [99]. Olson, who wrote *The Logic of Collective Action*, describes the "exploitation of the great by the small" [102], by which he means the difference in participation by the small group of individuals who have a very large interest in the good and the majority, whose interest, though positive, is relatively small. Since the former (critical mass) are so interested, he argues, they will provide the good themselves, regardless of the actions of the less interested parties. The latter exploit the "great" by not contributing at all: they know they will get the good anyway, because the "great" will provide it [99].

Oliver, Marwell, and Teixeira, in relating critical mass to collective action, argue that while a small group of interested individuals contribute the most resources initially, there is a scale or 'production function' that others who are less interested than the critical mass do contribute, albeit less, and the ones who do not contribute are free-riders

[42]. Their theory states that once the critical mass has provided enough towards the goal, an “explosion” of attendance will rise from others who want to participate, but who are less interested (and therefore provide fewer resources than the critical mass). These less interested participants are of course necessary for a successful activity. For example, for a picnic gathering, a small group of people must perform the legwork of finding a venue, advertising, and bringing most food and supplies. The other potential participants who are less interested will join after the initial stages and may bring a single food item or even ‘free-ride’ where they bring no supplies at all. All participants are needed to bring a small gathering into a successful large picnic.

Interest-based activity groups rely on a critical mass of individuals in order for an activity to successfully take place. The critical mass leads the coalescing process, and supplies the resources needed for others to join a new group. Preece explained that the critical mass in online communities start and lead discussions, and do the work necessary to motivate others to add content [112]. Support for the critical mass is imperative to success in communities.

2.2.3 Collective Action in Networks

The act of joining a particular group can be viewed as a kind of behavior that spreads (diffuses) through a network [93]. To reach the critical mass necessary for successful interest-based group activity participation, numerous individuals have to make the positive adoption decision of joining (or becoming a member) of a group [151]. Rogers’ Diffusion of Innovation Theory [123, 124] defines diffusion as "the process by which an innovation is communicated through certain channels over time among the members of a

social system" [34]. An idea or innovation can be a new interest-based group or a goal that requires a group to succeed. Roger's theory outlines the key aspects of each of the components of this process (the innovation, communication channel and social system) and factors that impact on the rate of diffusion. The key characteristics of an innovation are: 1) relative advantage; 2) compatibility with existing values and practices; 3) complexity; 4) trialability, and 5) observability. A number of the components of the diffusion process can be optimized through supporting social computing features. For example, trialability can be addressed by allowing individuals to join and "lurk" [116] in groups to get a sense of community and belonging before becoming an active participant [134, 153]; and observability can be addressed by sharing information about past group activities. Rogers [123] believes that in order to reach success through diffusion, an 'idea' must be spread by adopters and accepted at such a rate that the adoption trajectory takes a sharp curve upward within an early enough amount of time since its first introduction. This mirrors Oliver et al.'s production function curve [99].

Meetup.com is an event-based social network designed for people to coalesce online for face-to-face interest-based group activities. Activity groups are formed by an organizer who posts events for participants to join. Collective action theories have been actualized in event-based social networks like Meetup.com. Meetup assists organizers by taking the responsibility of recruiting others through recommendation, and giving organizers tools such as a place to post events or send group messages. Activity participants are given an easy way to view an event, imply if they will attend, and write public comments. While few do the work of organizing, the event is held only when

enough participants imply they will participate at an event. Scaffolding this process for groups requires optimizing the adoption rate of possible new members through diffusing information on new groups and coalescing possibilities using the methods outlined by Rogers.

2.3 Leadership

Collective Action theory and Critical Mass theory indicate that a small group of individuals who have a higher interest than others create the critical mass needed for an activity to happen or a group to form. In theory, these individuals can be considered the organizers or leaders, but that is not always true. Hogg's social identity theory [62] group formation studies have shown that group members who are prototypical to the group in goals, values, and attitudes will become emergent leaders, stepping into the role of a leader without being elected. Hogg found that leaders do not emerge because they exert influence on others, but because the others in the group view that person as having the behaviors and values inherent to the group. Hogg and associates have applied SIT to online communication and found that prototypical group members stand a better chance to become the leader in online communities compared to face-to-face interactions due to many outside factors being eliminated through anonymity (age, race, physical attractiveness) so that people determine leadership on the behaviors and ideals that actually match the group [88]. It is important to note that leaders can come from individuals who are most impassioned about interests. This notion may be applied to emergent leadership. Showing a user that others share the same interest and a willingness

to participate in an activity may motivate them to lead the coalescing process if they are passionate about the interest.

2.3.1 Shared Leadership and Empowerment Theory

Most research on group leadership has focused narrowly on the influence of an individual leader (either an internal leader or an external manager), and has neglected the potential of individual group members to emerge into the leadership position [25]. Margetts, et al. [82] proposed that there is a type of leader who is willing to emerge as an organizer when there is still a low chance of success (e.g., a starter), in order to help jumpstart the coalescing process. This is akin to an early adopter for technology. In surveying those who signed online petitions before the petition drew momentum or media coverage, they found starters had a lower threshold for taking action, and were often extraverted. Often, as stated above, leaders are prototypical. There are challenges that prevent non-leader archetypes from taking on the lead role. On the other hand, some research looked into the tools necessary to foster shared leadership within groups.

Carson [25] defined *shared leadership* as “an emergent team property that results from the distribution of leadership influence across multiple team members. It represents a condition of mutual influence embedded in the interactions among team members that can significantly improve team and organizational performance. Shared leadership contrasts to vertical leadership, which is the typical view of leadership [105], which emphasizes the role of the manager who is positioned hierarchically above and external to a team, has formal authority over the team, and is responsible for the team’s processes and outcomes.”

Another theory, which relates to both shared leadership and collective action, is Empowerment theory. Empowerment theory is a psychological theory where individuals who share a common goal in a community feel empowered to take a leadership role when the responsibility is shared with others [117]. Empowerment is thought to be "a process by which individuals gain mastery or control over their own lives and democratic participation in the life of their community" [159]. One feels the same sense of accomplishment a single leader would feel, without having to take on the responsibility of a single leadership role. The community aspect of empowerment is similar to collective action, although it does not simply create a group of empowered individuals. Empowerment has been studied at three levels, community/organization, group, and individual. In most cases, empowerment of the individual is within a group, in order to satisfy a goal of the organization or community.

Similarly to collective action, empowerment is not only for the good of the community, but also for the good of an individual. Kieffer [72] conducted in-depth interviews with 15 individuals who emerged as leaders in grass-roots organizations. He concluded that empowerment at the individual level of analysis includes the development of skills necessary to participate effectively in community decision making, and comprises elements of self-esteem, a sense of causal importance, and perceived efficacy. At a group level, research has found that empowerment creates tighter group cohesion, often increasing trust and group identity. Zimmerman and Rappaport discovered teams who foster empowerment have higher team satisfaction, expected team efficacy, team plan effectiveness and positive individual team member outcomes [159].

The results of empowerment in virtual teams have also been explored. For purposes of this research, and consistent with an early and popular view on virtual teams, we define a virtual team as a collection of individuals who are geographically and/or organizationally or otherwise dispersed and who collaborate *via* communication and information technologies in order to accomplish a specific goal [111]. Originally virtual teams were thought of as alternatives to traditional collocated teams. It quickly became apparent that virtual teams were a mainstay with the Internet, global companies, and glocalization. Early research found that virtual teams were less effective than collocated teams and needed stronger, more directed leadership to function. Because of the nature of these groups (e.g., school and work), a specific leader was often chosen during initial group formation [58]. Often, leaders needed to communicate more frequently with their team with longer messages than others to influence participation.

Hill and Bartol surveyed members of 29 virtual teams, who used empowering techniques toward leadership, and compared the data to previous studies [56]. The study concluded that teams supported by empowerment were more effective in achieving their goals, and individuals were also more productive to the team. Hoegl and Muethel also examined 96 virtual teams, who were supported by empowerment. This study also found that virtual teams that used shared management were more efficient or successful at achieving their goals. Interestingly, they found that groups where leaders underestimated the amount of shared leadership performed significantly worse than groups where leaders correctly estimated shared leadership [61]. These studies show that empowerment enables groups to successfully reach their goals. Our gap in knowledge is whether

empowerment can be successfully applied to EBSNs and interest-based group activity coalescing.

2.3.2 Social Facilitation and Social Loafing

Some conditions that need to be met for an individual to step forward and become a leader have been discussed. Another factor in motivation is social facilitation, which was coined by Allport as “the tendency for people to perform differently when in the presence of others than when alone” [2]. Zajonc had a breakthrough in social facilitation research by positing that the presence of others affects arousal, which affects performance. He explained this through the Yerkes-Dodson curve; where for simple tasks, the mere presence of others boosts arousal, and in so doing, raises performance. In complex tasks, those who are considered experts become aroused and perform better, while those who have little experience perform worse, in the presence of others [157].

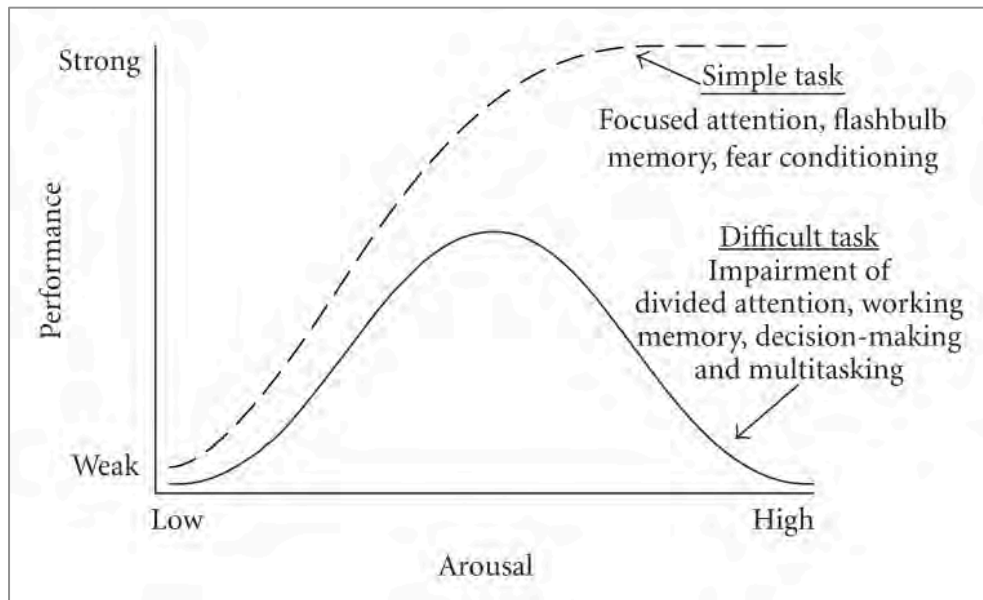


Figure 2.1 Yerkes-Dodson arousal model.

These tasks can be anything from math problems, memorization, changing clothes, or working on a project. Zajonc's research was on the mere presence of others affects performance. Social facilitation, or the audience effect works whether the others are co-actors (also participating in the task), spectators (watching the person complete the task) or merely standing in the same space (with their back turned or focused on something else). Cottrell (1968) also added that for social facilitation to occur, there is a degree of apprehension that others are observing [33].

Individuals within groups are also affected by social facilitation. Research found that inferior group members (those who contribute less) are more motivated to participate if their performance is constantly monitored and made known to the rest of the group, including leaders [131]. This may positively impact overall group performance. This

facilitation will occur when the inferior members are notified that they are holding the group back, giving responsibility and accountability directly to that individual.

Most studies in social facilitation have tested the effects when others are physically present. Some research has found that people do not need to be physically present, if there is a feeling of being watched or when others are simultaneously working on the same task in another room [35]. Social facilitation also occurs *via* computer [15]. Social facilitation occurs within computer-mediated communication as well. Cole et al. tested gambling offline and online, and found that in the presence of others online, players will make larger and riskier bets compared to playing alone or even playing offline with others [31].

Another theory applied to the amount of effort an individual will give is social loafing. Social loafing refers to the reduction in effort from individuals when part of a collective [155]. The classic example used to illustrate this phenomenon is a “tug-of-war” rope pulling game, where individual effort is known to decrease as the group size increases [70]. There are many situations in which social loafing occurs and a variety of explanations have been put forward. One is that as group size grows, individuals tend to reduce their effort because they are less accountable or less visible in a larger group [27]. Relatedly, the bystander effect states that an individual will be less likely to act in a situation when others are present [76] (e.g., the greater number of people that witness an accident, the less likely any will offer help) due to a diffusion of responsibility. In the context of initiating collective action towards a group activity, if potential participants are aware of a sizable number of other interested people, they may be less likely to “step up”

as an organizer because they assume other interested people will take on that responsibility.

While research does not typically relate social facilitation or social loafing to group coalescing, these theories can be applied to such. When given the opportunity to initiate coalescing with others, arousal in natural leaders increases, increasing the likelihood they will try to recruit others for an activity when others are present. Those who do not organize will be even less likely to initiate coalescing when others are present. Similarly, social loafing would posit that those who do not organize are less likely to initiate coalescing in the presence of others because they would wait for another individual to step forward.

CHAPTER 3

THE GROUP FORMATION PROCESS

In the last chapter - groups, interest groups, and leadership were defined. This chapter will now elaborate on group formation, how a group is formed and how people become members of a group. Membership is essential to groups because it brings individuals together to solve a common problem or reach a common goal. Within action-oriented groups, the feeling of belonging leads to a shared sense of duty to undertake tasks to reach shared goals. Bergstrom argues that groups with stable memberships are likely to foster social interactions where individual self-interests are consistent with behavior that maximize group success [11]. Repeated encounters between individuals lead toward group norms and goals while violations of the norm are punished. It is not the physical makeup of the group that is important but instead the psychological state, “the subjective sense of togetherness, we-ness, or belongingness” [149].

Blanchard and Markus [9] studied community formation and practice in virtual communities. They found that, as with physically connected communities, certain patterns emerged as a sense of community. These dimensions include: 1) recognition of members (recognizing the same individuals over a period of time), 2) exchange of support (informational and socio-emotional support between members of the community), and 3) attachment/obligation (emotional attachment to other individuals and obligation to ‘give back’). They also found two dimensions that are specific to virtual communities: 1) identification (creating an identity for themselves through posting), and

2) relationship (developing relationships with individuals through private messages or face-to-face meetings) [37, 88]. These dimensions are important to note when thinking about how to bring a sense of community to those who share similar interests.

3.1 Tuckman's Stages of Group Development

In 1965, Bruce Tuckman reviewed over fifty articles dealing with small group development in order to create a generalizable model [146]. This model is the seminal model of small group development. Tuckman's model describes five stages: 1) forming, 2) storming, 3) norming, 4) performing, and 5) adjourning. This model was designed to create effective collaboration for emergent groups by following the outlined steps in team building to reduce conflict and develop group cohesion. Tuckman's design is based on groups that have already formed (all members known) or were formed externally (e.g., a business team or classwork group) rather than groups in their infancy (e.g., during the coalescing process). This model can be used as the basis for understanding group formation. The next sections will provide links between Tuckman's model and the group formation process.



Figure 3.1 Tuckman's stages of group development.

This research makes the assertion that there are three essential stages to group formation: discovery, introduction, and membership, and each stage can be represented by a stage in Tuckman's model. Tuckman's "Forming" stage is an introduction stage where people learn who is in the group, the goal, and test their dependence. This relates to "discovery" in group formation - individuals must form a mutual awareness (become aware of each other's existence). This awareness can form through many levels (e.g., a face-to-face meeting, a recommendation *via* a social discovery app).

Tuckman's "Storming" stage is mostly filled with conflict. At this stage, members discuss individual goals, argue ideas, and feel out each other's place within the group. This relates to the introduction phase strangers go through when they meet for the first time. Strangers go through process of revealing self-information to judge whether or not they want to continue first and foremost the conversation and second define a relationship [115].

During Tuckman's "Norming" phase, the collective forms a single goal, establishes roles, and begins to work efficiently. In group formation, this third step is

where the group forms a membership, where individuals self-identify with others' mutual goals/views as well as defining the mutual goals/views of the group, thus forming group norms. Tuckman's Performing and Adjourning steps can be encompassed into this membership phase, as the group has now formed. Or, coincidentally, the group may proceed in performing Tuckman's stages of group development, as they are now a formed group. Below, the theories and methods of group formation associated with discovery, introduction, and membership are discussed.

3.2 Mutual Awareness and Discovery

The first step toward group formation is mutual awareness of each other's existence [154]. Physically, this can be face-to-face interaction. There are cases where non-interactive awareness occurs, which Paulos calls "the familiar stranger" - people recognize members of community they frequently see but do not know (at bus stops, in lecture halls, in lunch rooms). Familiar strangers [104] are important, as they may hold high compatibility to each other, but because their interactions never go beyond mutual awareness (as they never meet or interact), no social ties are made and no social capital is gained. Online communication offers many means of discovering other people: social networking sites [74] (Facebook, GooglePlus, MySpace), profile sharing [86] (LinkedIn), social matching [94] (dating websites), group discovery [126] (Meetup.com) and allocations [154] (student project teams). Each of these types offers varying levels of awareness, from simply a name, or mutual contact, to full disclosure of mutual profile information.

Social networking sites (SNS) enable users to provide personal information as a “profile” to share with others (e.g., Facebook, Myspace). SNS provide the ability for users to connect to one another, essentially visualizing their network of contacts. Many of these sites are used for social benefit, predominantly connecting people online who have met offline [74, 109]. Sites such as LinkedIn.com focus more on maintaining business rather than social contacts. SNS use network graph and node information in order to “recommend” individuals to people they may know through mutual contacts. These sites offer ways for users to plan or seek interest in activities, but often fail to completely support the coalescing process. Social Matching Systems recommend people-to-people [143] and can provide users with access to various aspects of other users’ profiles through listings (often in the form of friend-of-friend systems – see [14]) or social network-like visualizations which are extended to include match alerts and introduction management tools that aim to encourage interpersonal contact.



Figure 3.2 Social network recommendations.

Similar to social networking websites are “social discovery” services, these help people find others with similar interests [130]. The purpose of these services is to make new connections (Highlight highlig.ht) or to participate in activities together (Meetup meetup.com, Grubwithus grubwithus.com). While SNS tend to be used to bring together people who have already met, Social Discovery apps use geographic proximity and similar profile interests to recommend individuals to meet for the first time. In order for mutual awareness between individuals to happen, there must be a level of adoption to related interests by all parties involved.

The need for mutual awareness is an important step in the coalescing process.

Without knowledge of each other's existence, people cannot meet each other. The use of technology has changed the way people become aware of each other. In the past, meetings happened through face-to-face or recommendations from mutual acquaintances. Now, through services such as SNS, people are recommended automatically using algorithms. Following mutual awareness is introduction, where individuals meet and establish rapport.

3.3 Introductions

Once people are aware of each other, they go through a process of evaluating whether or not a relationship should continue in any form. Existing literature has focused on comparing self-disclosure in face-to-face and computer mediated communication (CMC) conversations, and studied factors that affect self-disclosure in each [10, 42, 69, 143, 144]. In the case of social matching systems, there is often a clear design goal: introducing potential social partners for the purpose of expanding social ties. Therefore, researchers need to focus within CMC-based conversations and investigate the various factors that affect intentions to interact with partners.

Over the past 30 years, two competing explanations of entry phase communication have dominated the academic literature - Uncertainty Reduction theory (URT) and Predicted Outcome Value theory (POV). These theories focus on behavioral strategies leading to interpersonal impressions and decisions on further interaction, i.e., continue or stop interacting. URT [139] suggests that self-disclosure should reveal enough information to serve as a trigger for further interaction. POV [140] is more

forward looking, proposing that disclosed information should indicate the future outcomes of a potential relationship. These theories are two of the most prominent social interaction theories for examining interaction between individuals upon first meeting. The URT states that when strangers interact for the first time, uncertainty levels are high [10] because they do not know much, if anything, about each other. Individuals have a cognitive need to understand a situation and modify their behavior accordingly. When information about another person is unknown, people face an ambiguity about outcomes and reactions in conversation. The end goal of uncertainty reduction is to gain adequate information about a person and their behavior to serve as guide for decisions on continuing or terminating future interactions. The process of uncertainty reduction is divided into two interactive processes: explanation (retroactive attribution), and prediction (proactive attribution). Retroactive attribution processes interpret the meaning of past interactions and thereby provide information on how future interactions will be based. Proactive attribution processes are expectations that affect both formations of behavior and interpretation of responses.

The POV perspective posits that the basic goal of strangers is the maximization of relational outcomes [140]. There are three main outcomes to a conversation: 1) terminate the conversation, 2) continue the entry-level conversation, or 3) escalate the conversation beyond the initial level. POV theory suggests that longer conversations increase positive outcome values (as trust increases over time), and individuals will reciprocate more detailed information in conversations with perceived positive outcome value. Sunnafrank, [140] in support of POV, proposed and found evidence for three general propositions

concerning initial interactions: 1) individuals are more attracted to partners and relationships when greater predicted outcome values are expected in the relational future; 2) increasingly positive predicted outcomes will produce more attempts to extend interaction and establish future contact. Conversely, increasingly negative predicted outcomes would result in attempts to terminate the conversation and future contact; and 3) individuals will attempt to guide conversations toward topics expected to result in the most positive outcome.

The two theoretical approaches are not at odds with each other. On the contrary, uncertainty reduction increases the potential for perceived outcome maximization. Once uncertainty is reduced to a certain extent, individuals can make better predictions of outcome value. Both theories have the same approach, wherein people study both verbal and nonverbal cues to decide the path of the conversation. This process of identifying potential future outcomes also applies to group coalescing, or specifically, coalescing interest-based activity groups. When people get together for the first time, they must decide if they can escalate the meeting (can two teams play pickup basketball together). After initial meeting, there is also the tension on whether they want to continue to meet (willingness to exchange numbers or approach again).

So far, we have expressed two stages of the coalescing process. First, individuals must become aware of each other's existence. Once this is established, they must introduce themselves and carry out a decision making process on whether they want to continue conversing, part ways, or exchange enough information that they meet again in the future. An example of this process is strangers meeting on a basketball court. Seeing

each other on the court produces a mutual awareness. Introductions happen when one person or group approaches the other to ask if they want to play together. The response lays the groundwork for further interaction between individuals. Furthering contact (playing games, organizing to meet again) leads to a social identity and feeling of membership between group members.

3.4 Membership and Social Identity

Once individuals are aware of each other and have decided through introductions/interaction that they wish to continue contact, they enter the final phase of group coalescing, membership. This stage is also known as forming group identity, as posed by Social Identity Theory (SIT) [4, 64, 142]. Social identity is [141] “that part of the individual’s self-concept which derives from knowledge of membership of a social group together with the value and emotional significance attached to that membership” (Tajfel, 1978, p.63). This definition implies that, although social identities are represented in individual cognition, they are simultaneously properties of the social group itself because they depend on some degree of consensus among those who subscribe to this identity (and often on a wider intergroup context within which this identity is recognized to exist). One reason for this consensual nature of social identity is that group membership carries with it expectation of a *common understanding*. Studies have shown that social identity theory and group norms apply to CMC groups just as well as with physically located groups [7, 110]. Social identity occurs by symbolic interactions as well as following the group norms established by prototypical representatives of the group [4,

28, 118]. These representatives often acquire the leadership role either purposely, or are elected into position by other members.

Social identification affects the outcomes conventionally associated with group formation, including intragroup cohesion, cooperation, and altruism, and positive evaluations of the group [149, 150]. It is also reasonable to expect that identification would be associated with loyalty to, and pride in, the group and its activities. This affinity does not need to be interpersonal or based on interaction. Dion (1973) demonstrated that one might like other group members, despite their negative personal attributes, simply by virtue of the common membership [38].

Social identification serves two functions. First, it cognitively segments and orders the social environment, providing the individual with a systematic means of defining others. A person is assigned the prototypical characteristics of the category to which he or she is classified. Second, social identification enables the individual to locate or define him- or her- self in the social environment. According to social identity theory, the individual defines him or herself partly in terms of salient group memberships. Identification is the perception of oneness with or belongingness to a group, involving direct or vicarious experience of its successes and failures. Group identification and favoritism tend to occur even in the absence of strong leadership or member interdependency, interaction, or cohesion [3].

Individuals' self-concept (collection of beliefs about oneself) may change from context to context when the situation makes different social identities salient. For example, in a college community, a social identity associated with an individual's social

group (e.g., “I am a brother of Theta Chi”) may be salient. In interactions with others on the same campus, the identity may be completely different due to context (e.g., “I am a student within a research lab”) [110]. It could be argued that when group membership is salient, a significant portion of what is communicated within an interactive group or among members of larger social categories is directly or indirectly about or contextualized by group norms [64]. This is important to note, as salience may have an impact on activity recommendations within complex communities. Group norms can play a role in influencing activity participation (e.g., having the leader of a group attend an activity influences others to attend as well).

CHAPTER 4

CURRENT CYBERINFRASTRUCTURE FOR COALESCING INTEREST GROUPS

The previous chapter investigated what interest-based activity groups are, how they form, and how they function. We learned that these groups need a critical mass of people who share a common interest and a common goal in order to be successful. This chapter turns the attention toward technology and how it is currently used for coalescing people and groups with similar interests. The sections discuss social networking systems (SNS), then event-based social networks, and communities of practice.

4.1 What are Social Network Systems?

Social networking systems (SNS) allow users to have profiles about themselves detailing items like “favorite movies” (Facebook) or “previous employment” (LinkedIn). Sites that focus on social aspects give users the ability to post status updates with messages, links, and pictures to update people connected to them about their lives.

4.1.1 Social Network Systems

Since the early emergence of social network systems (SNS) research has investigated the effects of these networks on social capital – as online interactions have created new ways for people socialize (e.g., web forums [36], email lists [68], social network sites [16], virtual worlds, video games).

Facebook is currently the most widely used SNS in the world, with over one billion active users. Facebook started out as a way to connect people in their social

network through profiles. It has since turned into a site for keeping in contact with others through "posts", "newsfeeds", and messaging. Much research has looked at how Facebook is used, and its impact on social capital.

Recurring survey research on college students has discovered that Facebook is more for "social browsing" [74] (moving offline relationships online), rather than "social discovery" (finding people you have never met). Facebook's social recommendations are based on link similarity (e.g., "You and Jane share 10 friends"), which also leads to established offline connections being added to Facebook. While most Facebook features are for one-to-one relationships, they do have user-created groups; but these groups are not action-oriented, nor do they have many features for creating activities within groups. Other studies have found that Facebook Groups on college campuses were largely used for socializing, entertainment, self-status seeking, and event information seeking, although younger college students were more likely to use Groups to find local events than others [103]. Rarely do commercial SNS efficiently cater to group formation "from scratch." Even research endeavors have largely ignored this issue; ([5, 71, 125]) have all assumed a pre-established group to some extent in their research. Flores, et al. [43] assumed leadership roles were already defined, and McKenna and Green [88] downplayed physical gatherings of interest groups in general.

4.1.2 Event-based Social Networks

A subset of social media networks has been designed to create online communities that organize offline events, called Event-based Social Networks (EBSNs) [78]. These sites focus on long- and short-term activities (e.g., lunch vs. starting a business), and often try

to bring together strangers without using social ties for recommendations. Examples of such systems include Meetup, Plancast, Eventbrite, and to a certain extent, the events feature on Facebook. These systems provide an online platform for users to create, distribute and organize social events, which are generally face-to-face. Similar systems built for online organization for offline events have been shown to strengthen social connections between members [16, 128].

Research on these systems has focused on enhancing social engagement through recommending events or public event-focused groups to individuals through an analysis of user interests, user social-ties, and co-presence data [5, 79, 96]. Previous research assumed that groups for these interests existed, or that users were willing to become leaders and organizers. For example, both Noulas [96] and Burke [21] studied activity recommendation based on previous physical location history. Their systems assumed that groups already visited a location to participate in activities for that interest. Research in this domain has not focused on emerging group leadership or group emergence. One major gap in this area is on leadership, addressing who organizes events and why.

Commercial EBSN applications generally adopt one of three commercial models – pay for the ability to lead/organize groups (e.g., Meetup), sell event tickets (e.g., Eventbrite), or push commercial venues through advertising and getting users to make private group planning a fairly public activity (e.g., Plancast). Each of these models pushes the support focus towards social structures where there is: 1) a main organizer of an activity (leader) who is willing to make significant investment to actualize the event; and/or 2) an existing social group interested in using a commercial venue of one sort or

another.

While EBSNs like Meetup were created specifically for activity organization, most offline social activity coordination is managed through unstructured conversation using a variety of communication channels (e.g., face-to-face, phone calls, e-mails, Facebook messages, texting). Unfortunately, coordinating social activities through open communication channels often results in difficulties, such as plans not being fully communicated to all parties and confusion about who is doing what and when [9, 128]. EBSNs aim to address these group coordination challenges, although their success in this regard is an open research question. Another type of social group activity coordination challenge that EBSNs aim to address is that of group coalescing. Often those with a desire to participate in a social group activity of interest do not know of a critical mass of other individuals who share their desire [87, 119]. Research on event based social networks have pointed out that people have difficulties finding others, and have focused on designing recommender systems to make it easier for participants to find events [36, 78, 79]. Beyond discovery of a critical mass of likeminded individuals, organizing activities takes time and energy, and so EBSNs aim to reduce the effort involved in leadership so that more people will take the initiative to lead activities.

4.1.3 Meetup

Meetup.com was chosen for this research because it is the largest, longest running EBSN. Meetup.com started in 2001 to bring people together locally for social activities. According to Meetup, in 2016 they had 24 million users and over 230,000 Meetup groups that hosted 560,000 “meetups” (face-to-face group activities) per month. Organizers

create and lead groups based on interests, and then users are free to join these groups to participate in activities created by organizers. This is unlike some other popular social gathering websites (e.g., Kickball.com, ZogSports) where members pay a fee to join activities curated by a company. On Meetup.com, organizers pay 80 dollars per year to be an organizer.

Meetup has two types of users. The first, Organizers, pay an annual fee for the ability to create and lead interest groups (e.g., volleyball players, bird watchers). Organizers create events within their group for others to join. The second group of users acts as followers. They join the site for free and join existing groups that are related to their interests. It is the responsibility of the Organizer to create enticing events that others join. Most Meetup Organizers do not advertise their group or events; Meetup uses keywords the Organizer enters to advertise to users who list those interests in their profile.

Meetup is not without issues. First, many irrelevant recommendations are sent to users, which cause information overload [66, 67]. Users miss out on opportunities because they miss the good recommendations in a sea of irrelevant recommendations. Second, Meetup.com users do not know if there is mutual community interest when a group does not exist. For example, searching for keywords related to “classic car cruise night” returns 0 results, even though there are people who have an interest in classic cars on Meetup.com. Without knowledge of community interest, leaders do not have an incentive to start a new group. Other interests, such as volleyball, have many groups, but no distinction between them, which is confusing for users who are interested in

participating in volleyball. There is an unbalance of groups within geographic communities.

4.1.4 Virtual Communities of Practice

Communities of practice are groups of people who share a craft or profession. These communities develop through common interests in a field/domain or are created to share experiences and knowledge with others. Communities of practice can exist virtually such that members can be geographically dispersed. Online communities of practice exist in many forms, including listservs, websites, forums, and chat rooms. Individuals who practice a specific craft or profession join these groups to discuss and seek advice from others. These communities bring together people worldwide, rather than locally, and they often do not offer recommendations for people to meet or collaborate. Although users have the ability to do so on their own (they can put up posts for collaboration), this is rarely done. One example includes:

SIGCHI.org: SIG CHI is a professional organization within the ACM for professionals, academics and students interested in Human Computer Interaction. Membership connects individuals to each other through their web portal and mailing lists. This organization has set up means for people to give back to others through mentorship, volunteer efforts, etc., but rather than having a system, individuals must email certain directors and their names are added to a list somewhere. There is no system for gathering associates with similar interests or background in order to get them involved in research or other tasks together easily.

4.2 Summary

This chapter described different types of systems that allow people to communicate about interests. Social network systems focus on bringing geographically dispersed individuals together, but their capability for local or offline activity coalescing is lacking. Group mechanisms exist (Facebook Groups), but support for organizers is limited – in both terms of advertising to potential interested newcomers and coordination features. Communities of practice exist both offline and online, but virtual CoPs focus on geographically dispersed memberships, rather than bringing people online to meet offline. Event-based social networks provide a service of bringing groups together online so that they can meet offline. Often these services have support for organizers that SNS lack. The largest challenge to entry is for potential organizers – those who want to find others, but do not find existing groups often fail to create a new group.

CHAPTER 5

RESEARCH PLAN

This chapter will describe the research that was done for this dissertation. From the literature, we can infer that organizers need a critical mass of individuals early in the coalescing process to successfully form a group. Since most literature focuses on roles and identity formation after a group has formed, this research sets out to understand, “How do groups emerge from one individual, to a critical mass, to a successfully attended activity?” It is also not well-understood how technology can best support emergent groups, so this research sets out to give design recommendations that support early group coalescing, “How can technology drive the success of face-to-face interest-based group activity coalescing?” These research questions are complicated and require more than a single study to answer them. In order to answer these questions, this research ran four studies to gather information on how groups are formed and how technology can help people coalesce for interest-based group activities.

5.1 Study One

The aim of the first study was to understand how people in a community found social activities and what challenges they faced in finding others. To gain this understanding, a semi-structured interview study was designed. Students around an urban university campus were interviewed in locations where people spend their free time between classes or participate in leisure activities with others. Results from this study indicated that

people could not easily find others who share similar interests. There was also an issue where those who start the coalescing process are not able to find enough people to reach critical mass. This study helped to focus the rest of the research on leaders and group founders, since they were necessary for groups to form.

5.2 Study Two

The aim of the second study was to understand a) organizers' behaviors in coalescing others and b) organizers' usage of EBSN's, since there was a dedicated system and community of people looking for others to participate in activities. The study collected data on why organizers choose EBSNs for their activity groups, as well as the high- and low-lights of using these systems early in the coalescing process. Another question was if EBSNs such as Meetup could be used as a viable solution to the communication issues for emergent groups in urban spaces, since they are specifically designed with a community of active participants. This study also further helped to understand the current state of technology and its role in coalescing emergent groups.

The second study was designed using mixed-methods: a) collecting usage data in Excel from a large number of fledgling Meetup groups, b) surveying organizers from those groups, and c) follow-up interviews with successful Meetup groups. The results indicated that most organizers used Meetup because they did not know others who shared their interest locally. Meetup's advertising features made it easier to gain the critical mass they needed, especially since Meetup is full of people who are willing to participate in activities. Another important result from this survey was the correlation between ideal

attendance and ideal participation at the first meetup, and long-term success of the activity group.

5.3 Study Three

The aim of Study 3 was to revisit the urban university to better understand organizers within the community. A survey study was used to gather feedback from the student body. The questions were similar to questions from the second study, in order to later compare these two segments.

Organizers in the college campus behaved similarly to Meetup organizers, where ideal attendance and participation led to them continuing to create activities for their interest. Similarly to Meetup organizers, those who start groups often did so to seek out others because they do not have friends who share their interest, which is a burden of time and effort.

5.4 Study Four

From the previous studies, this research gained an understanding of what was needed for individuals to come together to organize social activities: success hinges on having people who are will attend and participate at activities. The aim of the final study was to test a prototype UI with individuals who normally would not organize an activity alone by showing others who have an interest and are ready to participate. Features within the prototype gave participants the ability to organize an activity with others, thus reducing the amount of effort and responsibility from one individual.

This study was distributed through Amazon Mechanical Turk to US citizens, to collect a large number of responses. The results of this study found that individuals who are normally not leaders were willing to use the provided features to coalesce with others. Non-leaders would be willing to step forward and help with the coalescing process with others who share their interest, rather than taking on the full responsibility of being an organizer.

The next several chapters will dive deeper into each study and explain the design, methods, results and conclusions. These chapters are followed by a conclusion and discussion chapter, which gives a summary of the research and plans for continuing dissemination of this research.

CHAPTER 6

EXAMINATION OF GROUP ACTIVITY PARTICIPATION OF STUDENTS

The previous chapters outlined research in the area of group formation. The process of group formation is complex and poorly understood, and much of the existing theories of current practices are little more than weakly substantiated conjectures. In order to better understand how people coalesce, this study used a semi-structured interview process to gather participants' interests and the challenges they faced in finding, participating in, and leading interest-based group activities around a college campus [30]. Interviews began with participants listing their interests and current group activities, and then dove into experiences organizing, joining, and participating in activities – their successes, challenges, and failures.

The aim of this study was to gather data on 1) what interests people have, 2) the activities that relate to those interests, 3) knowledge of shared community interest, 4) current coalescing processes (searching, organizing, etc.), and 5) willingness to lead activity coalescing. This information will guide the next studies, as we now have an understanding of the challenges people face when finding interest-based group activities within the community.

***RQ1:** How well are people's needs for social activity engagement on campus being met?*

***RQ2:** Are available resources for activity recommendation giving optimal results?*

***RQ3:** How does technology impact the activity coalescing process?*

6.1 Method

To address the above research questions we conducted a contextual inquiry study on an urban school campus. Students were approached in locations of the university known for social activity. Students volunteered to participate in a short interview study about their participation in various interest-based activities. In order to ensure that we collected data from various social contexts, locations, and times of day, we conducted interviews in 16 unique locations (e.g., gym, basketball court, game room, racquet ball court, hallways of buildings with classrooms, student lounges, cafeteria, outdoor lawns, coffee shop) between 11am and 6pm on weekdays. Two types of locations were targeted: 1) locations that with a reputation for certain activities (e.g., playing basketball at the basketball court) and 2) locations that are open for interpretation (e.g., playing Frisbee on the campus green or hanging out in the student lounge).

When approached, interview respondents were first asked about their current activity to understand why they were in their location. “What are you currently participating in?” “Did you invite others?” “How often do you participate in this activity?” We used these questions to gather information about participants’ motives for their social activity.

We then used a semi-structured interview guide to obtain data about social activities they were involved in. The survey gathered data on how they found out about activities around campus for their interests.

Finally, we also asked questions about activities they would want to participate in

and if/how they try to organize them. Respondents who led activities or groups were asked questions on their role as a leader and the process they went through to form a group.

6.2 Participants, Data Collection, and Analysis

Interview data was collected from 60 respondents (23% were female) between 18 and 36 years of age. The majority of participants were undergraduates (90%) and belonged to engineering (34%) or computer science (30%) fields while the rest were from a range of disciplines such as math, science, architecture, and management.

Summaries of each interview with key insights on data and trends were cataloged within 24 hours of being conducted. Each week, the summaries were reviewed and were used as a basis to modify and refine the interview guide. Early versions of the interview guide focused on understanding people's interests and activities that they participated in. As insights were gained, later guides focused on deeper understanding of the underlying motivations and challenges in finding, participating and sustaining participation in interest-based group activities.

Each interview was audio recorded for transcription and further analysis. The summaries created for each interview highlighted several themes. Interviews were then transcribed for coding.

The initial coding was informed by the trends found in the summaries of each interview, followed by an iterative open coding process that was used to enable the discovery of emergent themes [10]. Once coding was complete, quotes were extracted

from the transcripts for evidence of each theme's existence.

6.3 Results

Of the seventy-eight interests that were mentioned, 33 were unique; 49 interest groups were mentioned, twenty-seven being unique. Interview times ranged from 5 to 40 minutes with an average of 15 minutes each.

The following themes emerged from our interviews:

1) *Missing Opportunities*: Most participants felt they were missing out on activities that directly related to their interests. Students use a "satisficing" strategy in order to find the "next best thing" so they can socialize and make friends. They typically experimented by joining at least one club on campus, but that club often did not relate directly to an important personal interest.

2) *Information Not Getting to Target Audience*: Current methods of communicating and advertising upcoming events are ineffective and not reaching the intended audience. Signs advertising events hung around campus are often ignored by passersby because too many cause information overload. Electronic means of advertising (e.g., Facebook invites, online calendar, etc.) also lead to information overload. When overburdened by too many irrelevant invites, people tend to ignore them all and miss potentially relevant invites.

3) *Burden of Leadership*: There is a burden of leadership that prevents interest-based activities from occurring and interest groups forming. The task of coalescing a critical mass of individuals for an activity to occur for the first time is seen as daunting, and is a major deterrence to most individuals.

6.3.1 Missing Opportunities

Our respondents typically mentioned four to five primary interests (e.g., comics, gaming), but on further probing also mentioned one or two secondary interests. While most of our respondents actively sought others to participate in primary interests, they pursued secondary interests if they had “extra time.” For example, one graduate student enjoyed technology news and played team handball, but if she had the time, she would be willing to play basketball – only if others invited her. While she has been a student at the university for a number of years, she had not once played basketball on campus. Respondents reported joining at least one club on campus, however the clubs joined were not necessarily directly related to their interests but were a way for them to socialize.

A common sentiment expressed by most respondents was that they felt they were missing out on activities related to their interests. Several reasons were cited for this: 1) a club for a particular interest did not exist and there was no easy way to find others who liked the same interest 2) respondents did not have the time to search for or participate in an activity, or 3) previous bad experiences keep respondents away from pursuing activities of interest. Respondents mentioned it is not easily possible to find others who share their interests to participate in group-activities together.

6.3.2 There is No Easy Way to Find Others Who Share the Same Interest

Respondents often had unfulfilled wishes to participate in specific interests because the people they knew did not share similar interests. Anthony, a 21-year-old male CS student, mentioned that he liked to party, but *“My friends don't like to party. I want to go but I*

don't really want to go by myself and I don't know where to go." Needing a friend who shared the interest was important for many respondents. Jenny, a 20-year-old female biology student said, *"I want to take an airplane lesson, and go to a gun club. But my friends don't like this. They aren't interested; they don't want to go [...] I want them to go with me. I won't do it by myself."*

Respondents shared a desire to find a club that consisted of members who share their interest. They reported that often no such club existed. John, an 18-year-old male IT student, said, *"We were at the club fair looking around for clubs to join. I asked if there was a snowboarder club. They said 'no.' It was a joke at the time, but it is something that I want to do."* Kate, an 18-year-old female architecture student, said, *"My friends have no interest in what I want to do. I want a club that shows my interest and people who share my interest. People I can have conversations with."*

6.3.3 Perceived Time Commitment

Some interviewees reported that with school and/or work, their load was too full for many activities they wanted to participate in. Neal, an 18-year-old male CS student, said, *"If I had more time I would be in more clubs. Originally I was in three clubs but I was like nah, it's way too much. So I cut back to one, the one I liked the most. I'll probably join them back later, but I don't have the time right now."* Others exclaimed that they did not have enough time to join a club. Julius, a 22-year-old male CS student, said, *"I just don't have time. I heard about the TED talks recently. Which is something I would have liked to do, but I wouldn't have gone because I don't have enough time."* James, a 21-year-old male civil engineering student, expressed a similar sentiment, *"Like yesterday,*

there were a bunch of people who went on the tour of the new buildings. I signed up for it but didn't have time. I had work to do so I need to work instead.” Ben, an 18-year-old male ECET student, said, “I want to stay focused on my major right now...just trying to survive through the semester. I actually joined [the anime club]. I kind of joined last semester but never really participated because it's my first semester at college. I freak out about my schedule so I don't participate in any clubs now.”

6.3.4 Previous Experiences Affect Later Participation

Respondents became frustrated with clubs that participated in activities outside of what respondents expected. Several respondents shared stories of going to a club meeting and being turned off by what they saw. Shawn, an 18-year-old male biology student, mentioned his experience with the anime club, *“I went to a couple of meetings. I didn't really like it because they didn't really do anything. I walked in and people were playing Magic [the card game].”* A similar problem happened to Kevin, a 19-year-old male IS student, *“I went to a sci-fi club meeting once. I sat there and realized they only watched anime.”*

Bad experiences also affect respondents' motivation to participate in similar activities in the future. Leonard, a 20-year-old male civil engineering student, complained about a Frisbee group, *“they are really selective about who they throw their Frisbee at. They would only throw it to people they knew.”* Anne, an 18-year-old female biology student, felt more comfortable playing basketball with her friends than with strangers in a pick-up game. She said, *“it is usually a group of boys at the gym, because girls don't usually play. That's why they don't pass me the ball or afraid to block me, because I'm a*

girl.” In light of such experiences, both respondents reported being reluctant to join pick-up games in their respective sports.

6.3.5 Information Not Getting to Target Audience

Respondents felt they were not receiving information about activities they were wanted to participate in. Fliers were posted around campus in public locations: on bulletin boards, on walls, and near elevators (Figure 6.1), respondents reported not being able to gather information relevant to them. Respondents gave reasons as to why they don't get this information. Kate, an 18-year-old female architecture student, revealed, *"I've seen fliers everywhere. I read the big letters, but I don't get up close. I'm always on the way to somewhere."* Ben, a 21-year-old male biomedical engineering student, agreed, *"I can choose to read them, or I can continue on my day. I'd rather not waste my time."* The main reason for respondents ignoring these signs was information overload – there were too many signs about activities not relevant to their interests.



Figure 6.1 Wall flyer advertising an activity.

Current technological solutions were also ineffective. Students used Facebook invites for activities, but as Sam, a 20-year-old female architecture student, said, *“I get invited to a lot of things but that gets annoying. Most of the time its stuff I have no interest in. I end up ignoring things I would be interested in.”* When asked about using Meetup.com, all respondents gave a similar answer as John, an 18-year-old male IT student, *“This is the first time I'm hearing about meetup.com”* Students did not know about or use this system built specifically for interest-based group coalescing. Sam, a 20-year-old female architecture student, wished, *“I feel like there should be a better way to communicate. I feel that other campuses have some kind of Facebook.”*

While respondents were aware of the university electronic calendar, they said did not find much use for it. Jillian, a 19-year-old female architecture student, said, *“You finally get to the calendar and it is listed in a way that is not intuitive. [...] A well-coordinated calendar would be nice.”* Respondents also mentioned the University Facebook app, which was not a very good resource for activities. As shown in figures 2 and 3, messages asking about activities do not receive useful or accurate replies.



Figure 6.2 Missed opportunities due to lack of awareness.



Figure 6.3 Looking for soccer players on Facebook.

6.3.6 The Burden of Leadership

Many respondents said they were hesitant to start their own club for an interest if it did not already exist. They expected the task to be too time-consuming or difficult, especially since they did not know many others with the same interest. Shawn, an 18-year-old male biology student, said, *“I don’t have time [to start a kickboxing club]. I just wish they had something like that. I wish that someone else would initiate it, not me. It’s too much effort.”*

The process for becoming a sanctioned club at the University required having a roster of at least 10 people, creating a constitution with club rules, and announcing/planning four events outside of a weekly meeting. John, an 18-year-old male IT student, who decided to create his own snowboarder club, explained how he gave up after finding that it was too much effort to start a club, in spite of finding enough people with the same interest. *“It was myself and a few friends who wanted to start it, because we had a president, secretary, treasurer, the positions you need for the club. So we*

needed 10 people. There were 4 of us and we needed 6 other people. Within a week we had 40 people who said they were interested in joining the snowboard club. The main problem was no one followed through. I gave everyone many chances to give me an application, even made it downloadable (on Facebook). I think I got 3 back out of 40 people. And then, I tried to set up a trip for us to go on, but it ended up me and one other person. So, based on all that, it didn't go well.”

Groups that started small had issues with continued membership and gaining critical mass. This lack of critical mass was also a factor in lessening enthusiasm among group leaders. Jimmy, a 21-year-old CS student, said, *“There used to be a guitar club on campus. We got together and played, and just talking too. I think the organizers were hoping more people would come. After the first couple meetings we stopped getting new people and they weren't enthusiastic anymore, the organizers. [...] It kind of just fell apart.”*

6.4 Limitations

This research set out to explore activity leadership and participation, rather than answer precisely framed questions. To achieve this we adopted a semi-structured interview method that had both benefits and costs associated with it. In this study the interviews were powerful means of gathering insight into the context of wants and needs of the community, but the small sample cannot indicate the number of people who share interests across the entire community. The community that was studied was of a very specific type – a college campus community. While it is believed that the similarity between members of the college campus and members of local communities was close

enough to validate generalizability, we need further research on people's interest-based group activity seeking behavior to claim that this was truly generalizable.

6.5 Discussion

This interview study sought to gain an understanding of the extent to which college students were participating in activities related to their interests in the current technological environment. In so doing, we discovered the challenges they face and factors that affect their finding, participating in, and leading interest-based group activities.

Many definitions of "community" exist [19], here we consider community to be a group of people living in the same place or having a particular characteristic in common. Local communities can be made up of small towns or neighborhoods. College campuses are akin to residential communities, residents move in with little to no knowledge of the other inhabitants, and waves of people enter, exit, and interact daily, nightly, and weekly. College campuses are unique in that 18-22 year olds usually populate them, and the residents are primarily students. While we believe our results are generalizable to small communities, further research is clearly needed to confirm this conjecture.

6.5.1 Lack of Optimal Social Activity Engagement

Our study shows that students' social needs are not being met within the college community. When we asked about their interests and the types of group activities they would like to participate in, and their level of involvement in such activities on campus, the disparity between activity interests and participatory engagement became

immediately apparent. The main reason for this appears to be 1) the inability to easily find individuals who share the same interests and 2) there exists no established organizations/clubs for those interests.

While one would expect a small campus community to be close and tight knit we found that college students found it very hard to learn about the interests of its inhabitants. Having no system that gives students the ability to seek and find others based on shared interests leads to missed opportunities to participate in interest-based group activities. This finding is further corroborated in our interviews where we found that even within the sample of respondents in the study, several reported similar interests, yet were not aware of others with those shared interests. For example, eight respondents were interested in dance, but only one participated with a dance group.

The college community under study boasts of a “club culture” where groups form school-sanctioned clubs based on interests. However there is mismatch between what students want and what the clubs offer. The school hosts a club fair one afternoon at the beginning of each semester, where clubs occupy booths to recruit new members. Many respondents mentioned finding a club they were interested in at the club fair, making this an easy method for students to find clubs on campus. While this allows students to participate in some social activities, they are often “satisficing” (sacrificing to satisfy needs) by participating in groups and activities that are not directly related to their interests in order to socialize. Joining a club because their friends are involved or because it is something to do does not satisfy respondents’ needs for finding others who share similar interests, specifically their primary interests.

Overall, while students do participate in some social activities, they are not necessarily optimizing the number of activities they participate in, or participating in activities that match their interests. The need for social activity engagement on campus is currently not being met for many students who expressed a desire to be involved with more clubs or activities that related to their interests.

6.5.2 Process Challenges of Social Activity Engagement

The inability to optimally participate in activities based on one's interests is tightly linked to the inability to find others who share the same interests or find ongoing activities on campus based on interests.

Finding others who enjoy a similar interest is an exhilarating feeling, and being accepted into a group gives students the chance to create bonds. There are occasions, however, where joining an interest-based activity can have negative consequences. There are instances where respondents participated in interest-based group activities that became less than ideal situations. Several respondents mentioned participating in a group where they felt like outsiders to the others. In these situations, the respondents' reactions were to not partake in an activity with that group again, or to dismiss participating in that activity with strangers anymore.

There is an issue of expectation versus reality that forms between group organizers and participants. Some groups advertise a specific interest, but are created to serve ulterior motives (e.g., a ski club created for the purpose of socializing). This often turns off individuals who seek out an interest-based group for the purpose of sharing their interest with like-minded individuals. The anime club is an example, where respondents

expected to watch Japanese animated cartoons and movies, but in reality, they witnessed other unrelated activities instead. Explicitly expressing the purpose of a group leads to the target audience joining and staying with particular groups. Initially stating the true purpose of a group could reduce the disenchantment we have seen.

Some respondents who left the anime club because their expectations were not met ended up satisficing their needs with groups of others who had a minor interest in anime. Others were not so lucky, and had no way of finding other interested parties who were not part of the anime club. This again reaffirms that individuals have difficulty finding others who share the same interest. If a major group cannot satisfy their needs, where can they go? These individuals could benefit greatly from meeting each other.

While our respondents had a range of significant unmet social group activity interests, most were unwilling to step forward and lead an effort to coalesce a critical mass of participants. Reasons given included a lack of knowledge of the existence of a critical mass of potential participants, personal preferences, and the uncertainty regarding the effort required and likelihood of success. This appears to be the main challenge to the coalescing of emergent groups, which is highly dependent on one individual or a very small group of individuals doing a significant amount of legwork to find and organize the other individuals who are willing to participate in a group activity. The result is that the majority of individuals (who find this burden too great) decide to simply wait and hope that somebody else does the work required.

6.5.3 Technological Challenges of Social Activity Engagement

Use of technology by social group activity organizers appears to be driven by a desire to

inform as many potential participants as possible about an upcoming event. However, the technology used to notify people such as Facebook Invites and email nearly always goes out to a large number of people with little interest in the activity in question. The result is that people feel that they are being spammed, suffer from information overload, and as a consequence ignore the majority of activity related messages, which may or may not be of personal relevance. The school also implemented a Facebook App for students to converse. Students tried to repurpose the app for finding others who share interests (using discussion threads to advertise their interests), but the low population of users and inability to alert others using the app reduced its effectiveness. While students try to use technology to find others with shared interests, the inability to find, alert, or recommend others hinders the coalescing process.

6.5.4 Design Considerations

Our examination of the challenges faced by students wishing to participate in social group-activities provides us with new insights into the extent to which the current state of participation is sub-optimal. In an ideal world, interest-based activity group formation would be optimized in such a way that every person is satisfied by the quality and quantity of groups they participate in. Every person would participate in the optimum number of interest-based activities, which are dependent on their interests. In parallel, there would be a balance between individual and community needs, with a community also having the optimum number of activities occurring at any given time with the optimum number of participants (e.g., never too few or too many to hinder success). For example, if a person was interested in both playing volleyball and "arts and crafts", and

nine others were willing to play volleyball right now, but only one person was willing to craft, a system taking into account both community and individual needs would recommend the volleyball activity to the 10 willing individuals.

Gale and Shapley shared the Nobel Prize in Economics for their work on Stable Market Theory [14], developing an algorithm that pairs members of two groups in such a way that no other pairing would be better [13]. If we re-conceptualize community based social group-activities as occurring within an ‘activity market,’ then we can use the notion of “Stable Markets” to understand the extent to which the current situation is far from the optimal. Unfortunately, we cannot simply apply Gale and Shapley’s solutions to activity markets because 1) coalescing groups is more complex than pairs; 2) communities are dynamic, people enter and leave often (e.g., commuters come to campus for a certain number of hours per day); and 3) there are unknown variables (e.g., every member's interests, availability, and willingness to participate). That said, we could start to think of the coalescing problem not as that of individuals, but of the community in which the individual operates.

This more holistic interpretation of coalescing challenges leads us to call for new system designs that take into account the population of interests of the community as a whole and availability of willing participants (the activity marketplace). This would allow for 1) highly targeted outreach without the overload that currently results in people ignoring potentially relevant information; and 2) a reduction in the burden and risks associated with helping to organize social group activities, as greater information would be available regarding the pool of potential participants and how to reach them. Of

course, capturing the overall real-time participatory interest levels of members of a community is not an easy task. Research must be conducted to understand how user search behavior can reflect their interests and level of willingness to find others who share that interest.

One major issue that survey respondents brought up was the difficulty in finding others who share interests. Currently, interest-based group activity systems have a similar problem. Systems wait for an individual to create a group, and then use keywords in the group description to recommend the group to individuals who share that interest. Having a database of individuals' interests has the potential to recommend individuals to each other in a group setting to facilitate the coalescing process. By opening communication between these individuals, they could discuss their interest as well as collaborate on forming a group or organizing an activity. The system could give the group a forum/chat room or simply the option to send a message to the individuals – e.g., there are five others who like anime. Why don't you start a group for anime?" Showing that other individuals have the same interest overcomes the challenge of finding others, and increases the possibility that one person will step forward to start a new group. Putting a group together may create the immediate critical mass of interested individuals needed to form a new group.

6.6 Summary

This study presents findings that focused on the interests and activities of college students. These results represent a first step towards understanding the coalescing process

of interest-based group activities. We found that the process of searching for and leading such activities is currently not optimal and challenges prevent groups from forming. These findings point towards a need to better understand the coalescing process in small communities in order to build better systems to support successful coalescing for interest-based group activities.

CHAPTER 7

A STUDY OF LEADERSHIP SUPPORT THROUGH GROUP COALESCING SYSTEMS

Study 1 found evidence that college students have difficulty finding others to participate in activities because there are too many irrelevant advertisements for activities. The next step in this research is to find 1) how people in a larger community find activities to participate in, and 2) how technology helps others find activities. To further this research on group participation, this study used a mixed-methodology process on organizers of the popular interest-based group activity site, Meetup.com.

7.1 Research Questions and Hypotheses

Based on our prior work, the goal of this study is to investigate how people use technology to find and organize activities based on their interests. While we understand that Meetup is a popular platform, we do not yet know when and why an organizer decides to create a group. In order to better understand behaviors of organizers we explore two main research questions:

***RQ1:** What characterizes the decision making process to become an online organizer and what are the perceived challenges of starting a new group on Meetup?*

***RQ2:** How do event-based social networks such as Meetup play a role in the coalescing process?*

The quantitative research examined four hypotheses:

H1: Groups are more successful (defined by still being active after one month of existence) when the organizer knows others who share the same interest before creating the Meetup group.

H2: having the ideal amount of people come to the first meetup influences the organizer's perceived success of the group.

H3: having the ideal amount of active participation during the first meetup influences longer-term group success influences the organizer's perceived success of the group.

Both H2 and H3 are grounded in the same idea that attendance and participation can be used as a barometer for group success, and motivate organizers to continue their group. This was a finding in previous research with a campus community [30], so here we test it with a larger online community as well.

Once we have a better understanding of perceived success, we want to test whether organizers are truly motivated to continue organizing, and what influences group success.

H4: The organizer's early-perceived success of the group influences longer-term group success.

7.2 Method

For this study, we wanted to capture as much information about fledgling groups as possible. The more information garnered, the more we could understand early success

and long-term success of fledgling activity groups. The survey of 100 organizers of fledgling groups gave insight into how new organizers started their groups, and the reasons they decided to use Meetup. By following over 700 new groups, this study had the opportunity to learn what happens to many new groups after a period of time. Following both those who completed the survey and those who did not allowed for comparison between groups that continued to exist and those failed. Finally, the follow-up interviews gave an in-depth look into what participants considered success. This helped answer the 'why' that came from the survey responses.

7.3 Participants, Data Collection, and Analysis

This study combined three types of data: observational data, survey data, and interview data.

Once per week for 3 months, the researchers searched for new groups within 100 miles of Newark, NJ using the search bar on Meetup.com. The "new" flag designated new groups (formed within the last week) in the search results (see Figure 7.1). Information about each new group was cataloged (e.g., group name, date founded, number of members), and then contacted using the Meetup private message system. The organizers were asked to fill out a SurveyMonkey survey. 763 groups were contacted, until 100 survey responses were collected.

The 763 groups were checked for activity one month after being contacted. The 100 groups who took the survey were checked one month and one year after being contacted. If a group closed before being cataloged, no further information could be

collected as Meetup completely removes the group from public access. Public group information and survey responses were paired with the 100 groups who responded to the survey.

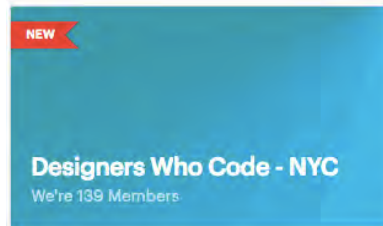


Figure 7.1 “New” flag on Meetup.com group.

As a follow-up to the survey, 105 organizers of “successful” groups were contacted for an interview. “Successful” groups were those that had existed for over six months, were still active, and had at least one meetup. Out of these, we were able to interview thirteen organizers over the phone, using a semi-structured interview format. These conversations were recorded and transcribed for analysis.

We interviewed seven females and six males (13 in total), between 27 and 56 with a median age of 36. They were organizing a diverse set of groups from a Motorcycle riding club to a women’s empowerment group.

Interviews gathered deeper details about why organizers created their group and their experience using Meetup. Participants spoke about the topic of their Meetup group (e.g., their interest), and if they participated in or organized a group for that interest before creating their group on Meetup.com. They then explained their reason for starting their Meetup group and the experience as they were first starting, how others found the

group, what type of advertising they did, at what point did they have their first meetup, and what factors made it successful. From there, participants talked about the challenges and successes using Meetup and organizing their group.

Table 7.1 Interview Participants

Name	Group	Age of group	Activity frequency
James	Motorcycle club	2 years	2+/week
Ben	Pin-up photography	8 years	2/week
Doris	Convertible car club	2 years	1-2/week
Hudson	Technology in Society	<1 year	2/month
Christa	Doberman social club	1 year	1/week
Jack	Outdoor drawing and sketching	7 years	2-3/month
Joseph	Dog hiking	4 years	1/month
Steve	Music together	3 years	1/month
Marie	Book club	<1 year	
Nadia	Women's empowerment group	3 years	1/month
Anna	Mother's writing club	<1 year	1/week
Tilly	Books and drinks	3 months	2/month
Karen	Sex discussion club	1 year	1/week

7.4 Results

7.4.1 Observational Results

Our observational data provides an overview of how the new groups grew over a month and how many of them survived. We present the data according to whether or not the group's organizer had replied to the survey or not.

After one month, 29% of non-responder groups had closed, compared to 9% of

the survey group (see Table 7.2). Before joining Meetup, some organizers of respondent groups participated in or organized groups. 26% reported forming a group for their interest and 40% reported organizing an activity related to this interest with people they knew.

Table 7.2 Observational Data Overview

Group	Took survey	Did not take survey	Total
Total groups	100	663	763
Exists one month later	91 (91%)	471 (71%)	562
Exists 1 year later	51 (51%)	N/A	N/A
Avg. # meetups within one month	7	7	7
Avg. # members within one month	57	64	62
Avg. # of days from founding to first meetup	21	> 30	> 30
No meetups	22 (22%)	115 (17.34%)	137

7.4.2 Survey Results

Our survey data was able to inform our hypothesis testing, which we describe one after another.

***H1:** Groups are more successful (are active after one month of existence) when the organizer knows others who share the same interest before creating the Meetup group.*

H1 posits that organizers use their offline contacts as a starter group to build

critical mass faster using Meetup. To answer this question, we tested multiple variables: ‘number of people they knew who shared the same interest,’ ‘did they form a group before meetup (and number of participants),’ and ‘did they participate in a group before forming their group.’ None of these variables were significant. We fail to reject the null hypothesis, and cannot conclude that knowing others affects group success. While this is very interesting, this is not disheartening. The follow-up interviews also found a mix, where some groups formed from previous groups, while others sought help from Meetup when they did not know anyone who shared their interest.

***H2:** Having their ideal number of people come to the first meetup influences the organizer’s perceived success of the group.*

This hypothesis posits that the events that take place at the first meetup have an effect on the long-term success of the group. Organizers were asked to define the right amount of people as when attendance is not too low and not too high. For H2, the results were consistent with our expectations. First, we evaluated if there was a correlation between the organizers’ subjectively rated level of “right number of attendees” and group success (defined by the group still having meetups a year after the initial survey), which was significant ($\chi^2(1) = 6.556$, $Pr = 0.038$). The correlation between the organizers’ subjectively rated level of “ideal attendance” and group success was positively skewed ($r_s = .612$, $p < .01$). Group success is affected by having the ideal number of people attend the first meetup.

Table 7.3 Crosstabs of Attendance * Perceived Success

		How many people actually came?			Total
		Far too few	Too few	About right	
How successful do you feel the first meetup was?	Very unsuccessful	3	0	1	4
	Unsuccessful	2	3	1	6
	Unsure	1	3	1	5
	Successful	1	9	22	32
	Very Successful	0	0	16	16
Total		7	15	41	63

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	38.596	8	.000
Likelihood Ratio	36.648	8	.000
Linear-by-Linear Association	25.684	1	.000
N of Valid Cases	63		

		Value	Approx. Sig.
Nominal by Nominal	Phi	.783	.000
	Cramer's V	.553	.000
N of Valid Cases		63	

Table 7.4 Crosstabs of Attendance * Exists 1 Month Later

		Exists 1 month later		Total
		Yes	No	
How many people actually came?	Far too few	4	3	7
	Too few	14	1	15
	About right	37	4	41
Total		55	8	63

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.556 ^a	2	.038
Likelihood Ratio	4.834	2	.089
Linear-by-Linear Association	3.295	1	.069
N of Valid Cases	63		

		Value	Approx. Sig.
Nominal by Nominal	Phi	.323	.038
	Cramer's V	.323	.038
N of Valid Cases		63	

H3: having the ideal number of active participation during the first meetup influences longer-term group success influences the organizer's perceived success of the group.

Similarly to H2, this hypothesis posits that active participation at the first meetup affects long-term group success. Active participation and group success were also correlated (Pearson $\chi^2(1) = 11.328$, $Pr=0.010$), and positively skewed ($r_s = .509$, $p<.01$).

Having the ideal number of attendance and participation at the first meetup positively affects group success on Meetup. The ideal number was subjective to participants and dependent on activity, and is not necessarily a number range that could be defined. For example, the ideal number of participants for beach volleyball may be 4 participants, and the ideal number for indoor volleyball may be 8.

Table 7.5 Crosstabs of Perceived Success * Active Participation

		Was there active participation?				Total
		Far too little	Too little	About right	Too much	
How successful do you feel the first meetup was?	Very unsuccessful	3	0	1	0	4
	Unsuccessful	1	2	3	0	6
	Unsure	0	2	3	0	5
	Successful	1	0	30	1	32
	Very Successful	0	0	16	0	16
Total		5	4	53	1	63

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	49.583 ^a	12	.000
Likelihood Ratio	32.898	12	.001
Linear-by-Linear Association	22.737	1	.000
N of Valid Cases	63		

	Value	Approx. Sig.
Nominal by Nominal Phi	.887	.000
Cramer's V	.512	.000
N of Valid Cases	63	

Table 7.6 Crosstabs of Exists 1 Month Later * Active Participation

		Exists 1 month later		Total
		Yes	No	
Was there active participation?	Far too little	2	3	5
	Too little	4	0	4
	About right	48	5	53
	Too much	1	0	1
Total		55	8	63

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.328	3	.010
Likelihood Ratio	8.106	3	.044
Linear-by-Linear Association	7.524	1	.006
N of Valid Cases	63		

		Value	Approx. Sig.
Nominal by Nominal	Phi	.424	.010
	Cramer's V	.424	.010
N of Valid Cases		63	

H4: *The organizer's early perceived success of the group influences longer-term group success.*

This hypothesis posits that organizers who perceive that their group will be a success are more likely to experience long-term success. While not as strongly correlated as the previous hypotheses, there was a correlation between believing in a successful

group and longer-term success ($\chi^2(1) = 9.717$, $Pr=0.045$), ($r_s = .248$, $p<.05$). A general feeling of success positively affected organizers perceived success, which was in turn also influenced by the participation and attendance at the first meetup.

Table 7.7 Believing in a Successful Group and Longer-term Success

		Exists 1 month later		Total
		Yes	No	
What is your own assessment of how successful your group is going to be?	Very unsuccessful	2	1	3
	Unsuccessful	4	3	7
	Unsure	22	5	27
	Successful	39	2	41
	Very successful	18	2	20
Total		85	13	98

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.717	4	.045
Likelihood Ratio	8.474	4	.076
Linear-by-Linear Association	5.962	1	.015
N of Valid Cases	98		

	Value	Approx. Sig.
Nominal by Nominal Phi	.315	.045
Cramer's V	.315	.045
N of Valid Cases	98	

7.4.3 Interview Results

We now continue describing the findings from our interviews.

7.4.3.1 Practices Around Starting a Group. Although most of the interview participants were organizers of long running Meetup groups, not all had in fact started the group themselves. Two of the organizers had taken over their group from previous organizers. Jack had taken over his sketch group only six months into its existence and Doris had taken over a group for convertible car enthusiasts after being an active member for about a year, when the original organizer decided to step down. But where Jack had been specifically asked if he would take over in relation to his high level of engagement, Doris had only volunteered to take over the group after witnessing no one stepping up when the original organizer retired. The remaining organizers we interviewed had started the group in question themselves and all were only organizers of one group at the time of the interview.

7.4.3.2 Reasons and Motivations to Start a Group. Organizers formed groups for many different reasons. Some formed groups offline before migrating to Meetup, and others created a group when they couldn't find others locally who shared the same interest. Of the organizers who were surveyed, 26% formed a group and 40% organized an activity offline before turning to Meetup.

Four of the interviewed groups (e.g., music group, pin-up photography group, dog hiking, and motorcycle riding group) were in fact migrated from either other social community sites or face-to-face groups of people who met on a regular basis. The latter

type of community group often needed a technology construct and Meetup fit the organizers' needs fairly well. For example, Steve explained that he had started an entrepreneur community offline and "saw that there were a lot of closet musicians." He formed a group of musicians to be a jam band for holiday parties, but the community grew and more bands emerged with overlapping members. He then made it into a more structured community, first through Yahoo groups, but later through Meetup. In two other groups, the organizers had been explicitly thrown out of another Meetup group (James' motorcycle and Joseph's dog hiker club) and therefore decided to start their own more inclusive group. Another common motivation was that the organizer had a particular interest but did not know anyone personally who shared that interest.

7.4.3.3 Challenges to Starting a Group. Organizers reported that initial challenges to starting a group were both technical and practical: where a few had difficulties using the Meetup tools, others mostly highlighted that gathering the critical mass for the first few activities was the most challenging. Anna said, "I didn't really advertise. I created a lot of 'hashtags' for the interest of the group. [Meetup] sends emails to all the people that put in their interests the 'hashtags' that I made. If they had a similar interest they would automatically receive emails from the meet up." Interestingly, almost all organizers relied solely on Meetup to advertise their groups to new members. As Anna stated, Meetup sends notifications to potential new members when a group with their related interest is formed (people who sign up for Meetup in general can define a large set of interests and then receive group suggestions). There were only a few instances where an organizer recruited outside Meetup. Karen for example, would walk up to others in the

bar where she held her discussion activities and let them know about the Meetup group. Christa had negative experiences advertising outside Meetup. In the beginning she would walk up to other Doberman owners she met on the street or in the park and let them know about the Meetup group; now, she had given up on that: “Not a single person I talked to on the street has joined. I saw a really sweet person on the street with a red ‘dobe’ this morning and I refrained from talking to them, partially [...] because those people don’t show up.” But for others, the public gatherings were real-life advertisements for their group; Jack said he often had people walk up during their outdoor sketch sessions, asking how to join.

Another challenge was to determine how often the group should plan activities. Both Doris and Joseph told us that at first, they had planned 3-4 activities per week but group members had told them it was too much, so they had cut activities to once per week. Looking at the survey data, successful groups existed for an average of 21 days before their first meetup. Successful groups had an average of 5.5 meetups per month, and 50% had 1-4 meetings within the first month. Regular intervals between meetups gave time for organizers to prep and group members to RSVP for future events.

7.4.4 Success of a Group

Organizer’s perceived group success was based on the amount of attendance and participation at Meetups. Qualitative data supported these findings. Hudson, for example, specifically said that the quality of conversation was most important. Karen’s success depended on the distribution between male and female members due to the topic of sex for her group’s discussion. Not many women signed up, yet, and most men would only

go if there were girls in the discussion group. Jack measured success by attendance and positive feedback: “That's how I measure success. I do it by the number of attendees, because a lot of them are repeat people, and that's just market proof of having good Meetups, and the comments that people leave [on Meetup], everyone seems to like it.” The survey data found statistical significance between groups that existed after one month and both active participation (Pearson $\chi^2(1) = 11.328$, Pr=0.010) and the right number of attendees ($\chi^2(1) = 6.556$, Pr=0.038) at the first meetup. Both attendance and participation influenced organizers’ perceived future success of the group.

Interestingly, the majority of the organizers had low expectations for attendance based on the number of people who RSVP’d. James, Karen, and Joseph all said that it was normal for two thirds of the people who had RSVP’d to actually show up and that was considered successful attendance. Karen for example explained, “It’s always less than the people who RSVP because for a lot of people, something will come up that day. [...] I’m fine with it. I actually don’t mind when the group is small because we get to have more intimate conversations. I feel like everyone gets a chance to talk about maybe what's on their mind or their opinions and what they think about things.” For groups with very low or very high attendance (e.g., mom’s writing group, books and drinks, and Jack’s sketch group) they relied on the actual number of people who have said they will attend, to actually show up. For the smaller groups, it became a problem if people did not show up due to critical mass. Consequently Marie, for example, would quickly kick people out of the Meetup group if they did not attend without informing her beforehand. Jack’s group, on the other hand, was very popular, with 60 people attending each Meetup.

Due to the high demand, a cap and waitlist were needed to ensure attendance was not too excessive. Jack would also throw out ‘no-shows’ to prevent large wait lists for future events, to give members an equal chance to attend events. Finally, Joseph would do a ‘spring cleaning’ occasionally, “When I do my annual clean up [of members], if you were a no-show 3 times, you are eliminated.”

7.4.5 Activities Outside the Group

Some organizers (e.g., Doris, Christa, Jack, Steve and Tilly) reported that their Meetup group had spurred other social activities to be organically organized by non-organizer members, often a “core” group of members. Christa for example, was surprised just how quickly the people in her group had become close friends. “Probably 15 of us are going to Saratoga Springs together next month. I didn’t think we were going to be doing things like that, I didn’t think we’d be such good friends.” Doris told us she would often go see a show with one or two friends that she had met through the Meetup group, building close friendships with people from her convertible group. Steve said this was an important element to any group he had organized, “I always said back at the [professional] group that the most important meetings are the meetings that happen between the meetings. That being a group of one, two, or three [members] that meets at a meeting and then get on with their own things. There's an online and an offline component.” It was not only an indication of group success; it was also a motivation for organizers to keep maintaining the official Meetup groups.

7.4.6 The Work that Goes into Organization

Organizing Meetup activities and maintaining a group through the Meetup service was acknowledged as quite a bit of work by all the organizers. Yet, some liked the work more than others. Doris for example enjoyed it but recognized that it might be because she was unemployed at the moment. Joseph felt it was a problem to spend so much time organizing. He reported that he was tired, and that he wanted to enjoy the group without all the responsibility. He kept reaching out to others to organize their own meetups within the group, so that he did not have to do it every time. Generally, the organizers with more time on their hands enjoyed the work more, as well as the organizers of well-established groups such as Jack's sketching club and James's motorcycle club. When survey respondents were asked, "How much work is involved in organizing a meetup?" The average score was a 3.0 on a 5-point scale (see Table 7.8). Only 6% answered "a lot" of work was involved. When comparing organizer's perceived amount of work to their perceived success, there was no significance.

Table 7.8 Participants' Rating of Work Involved

On a scale of 1 to 5, how much work was involved in organizing the meetup?		
Answer	N	%
1	0	0%
2	21	33.3%
3	25	39.7%
4	11	17.5%
5	6	9.5%
Total	63	100%

Hudson said when explaining that he was probably not continuing his group, “The amount of promotion that’s involved, I don’t think I have time for that [anymore].” Joseph felt organizing took more time than he would like; he spent much of his time answering questions on the group forum and private messages. He reported often getting frustrated by questions that could be answered in the activity’s description (e.g., “when and where are we meeting?”). He courteously answered these questions anyway in order to keep members involved.

The work was not just limited to coordinating activities online and communicating with members, it also comprised tasks such as scouting out new locations. Joseph for example said, “I have to select a place. I have to find a right trail, and scout it out.” Jack did not feel that this task was hard work: “I do spend some of my time scouting out the city for new spots, but that’s just fun, that’s not really work.” Finally, for some the location was scouted and chosen early in the group’s foundation. Karen and Tilly both chose a bar they felt comfortable using, and return to that location for every meetup. Anna decided early that each meeting would be hosted at a member’s house in a rotation.

7.4.7 Organizers’ View of Themselves as Organizers

In relation to the work that organizers put into the overall management of Meetup groups and activity organization many of them viewed themselves as, if not necessarily community leaders, at least activity initiators. Karen said that her co-organizer sometimes had to ‘keep her down’: “[E]ven though I do try to make everyone feel good and special, I’m a little much for some people. I’m really loud, especially when I’m there. I’m like

[Karen] on stage. I'm talking to everybody. [...] I'm just loud and having fun and the center of attention. [...] I'm playing a role, kind of. [My co-organizer] is a really good balance to that." Almost everybody viewed themselves as "good organizers," for example Doris who said that she simply liked organizing. For the longer-lived groups, organizers often had experience from other organizations or even community building. Steve told us: "It's something that I can't help but do [community building]. I would pull people together in my New York church group to go and be big brothers and big sisters to foster children. To go into the holiday and help at homeless shelters. Doing service type of stuff out of my church community." Organization came natural to them; it was part of their life already before starting the Meetup group.

7.4.8 Co-organization

Several of the organizers had co-organizers to help them with general organizational tasks. Where some had co-organizers who were complementary and equally involved, such as Karen who did most of the activities with her friend Daniel, others mainly had 'assistants', people who would be given specific small tasks for each event. Jack for example, relied on these 4-5 assistants who would help bring materials to the area where the group would be drawing and sketching as well as help out with practicalities once there. But he did the majority of the organization, including deciding on the location for each event as well as scheduling and RSVP'ing. Ben also reported having difficulty keeping up with all the tasks, booking models, make-up artists, locations, and handling the group, so he hired an assistant to take care of those details.

Some members built their groups in the hope that open organization would allow

the group to exist autonomously. Jim welcomed members to set up their own Meetup activities. Joseph said “I have been sending messages out asking people to organize their own hikes, in order to reduce the amount of work I have to do, because I’m getting older.” Steve, as mentioned earlier, hoped people would meet “between Meetups” to help grow the community.

7.4.9 The Advantages of the Social Technology

The Meetup social coordination tool’s success rests on the fact that it was the first of its kind, with a unique set of features lacking in previous systems such as Yahoo! groups and LinkedIn. Prior systems focused on collecting user profiles into one group and contacting them easily through a list, whereas Meetup provided this as well as tools for advertising and coordinating large face-to-face meetings. One key feature of Meetup was activity/event promotion through automatic notification of related interest groups. Most of the organizers we interviewed did not do self-promotion for the group, and when they did ask friends or stopped clearly relevant people on the street (i.e., Doberman owners in Christa’s case), they did not actually recruit more members. Instead, the ecology of Meetup worked well for them, helping them communicate the goal of their group and send notifications to relevant potential members. The disadvantage of Meetup was almost only reported as the amount of work that they had to keep up with such as listing of activities, membership management and fee-collection.

7.4.10 Why Choose Meetup as a Tool?

In terms of choosing Meetup as a coordination tool, it was no surprise that the organizers

had selected it out of convenience and previous knowledge of this as one of the only ‘full circle’ tools for arranging continuous social activities around a topic. When asked why she decided to use Meetup, Karen explained by referring to other nonsensical tools: “I just think I didn’t think there was another way. I thought that was just the way you do things. I didn’t know how else do I get people to know about it and want to come. I just didn’t think that there would be another way to do that. I guess there is, if I want to put in the hard work of making a Facebook and doing the Twitter and constantly posting and following up, but it’s not a job, it’s for fun. I don’t want to have it be a second job.” Jack similarly admitted that he had no knowledge about other tools with the same possibilities: “I wouldn’t have any idea how [to organize] without Meetup. Meetup facilitates this. It wasn’t until I joined meetup, went to one or two events, and thought, ‘oh I can do this, and clearly Meetup is the start.’”

Occasionally, the organizers felt they were able to arrange social activities explicitly because of the availability of Meetup. Anne, who had taken part in other Meetup groups for mothers, found no existing local mom groups when she moved to a new city. She quickly set up one herself on Meetup, in order to get to know local people, particularly other mothers. It was the existence of Meetup that enabled her to do so easily and because of her previous experience with the social tool itself, she had no hesitations to set up her own group.

7.5 Discussion

Humans are social beings, and seek out others who share similar interests. Those who are

leaders and take steps to form groups face several challenges to success. First, organizers need ways to find and advertise to others who share their interest. Most online social tools (e.g., WhatsApp) do not provide this. Organizers have to spread the word themselves, which is often difficult and becomes a “second job” because of the time it takes. Meetup, on the other hand, provides organizers with an automatic system to advertise to others using profile data. Most of the organizers interviewed in this study appreciated Meetup’s recommendation feature, as it reduced the amount of work needed to organize. It also helped to target the correct audience (e.g., it helped Christa who found that approaching Doberman owners at parks did not generate new members). For any group to exist, a critical mass of participants is needed for success. Failure to reach those who both share an interest and are willing to participate in a group leads to failure.

Another challenge organizers face is the need for communication support tools. This study found that the first meeting is an excellent determinate of longer-term group success. Strong participation and attendance at the first meetup influences leaders to continue supporting their group, and gives them the motivation to organize more events. Again, organizers need to advertise their activity to individuals who are willing to participate in an activity.

Finally, activity communities are leadership-focused. Meetup groups are only formed when someone steps forward to take the responsibility of creating, advertising, and organizing a group. Those who are not typical leaders often do not step forward to take on the organizer role, which causes missed opportunities for potential groups when no one is willing to organize. For example, Doris’ convertible driving club was the only

such club in her area. Doris' group closed six months after her interview, due to lower attendance and no-shows. A year later, no new car enthusiast/driving groups had formed in the area. There is a missing opportunity for those who would want to participate, since now that the group no longer exists.

One ideal solution for leadership-centric communities is to develop tools that empower groups of individuals to disperse the leadership role. Empowerment is a principal theory of community psychology, where, given the right tools, individuals in a community are empowered to contribute toward a common goal [107, 117]. In the case of interest-based activity coalescing, giving those who share a common interest the ability to discuss their interest and contribute toward planning an activity will increase the likelihood the goal is met, and the group is tighter-knit.

To empower individuals to form interest-based groups and organize group activities, we suggest a set of lightweight coalescing tools: a) displaying levels of interest within the user community, b) communication tools, and c) activity suggestion.

First, potential organizers can be persuaded to create a group if they have both knowledge of who has an interest and a way to communicate easily with those individuals. While our research found that simply knowing others did not lead to group success, we can extrapolate that knowing others who are *willing to participate* in a group activity leads to success. Displaying a number or list of those who have searched for the same activity and/or expressed interest in an activity in search results may lead to higher group formation rates. Showing community interest can motivate an individual, because they see others will participate if they organize an activity.

Second, communication is key. Meetup automatically advertises groups based on keywords to potential participants. This is a great start to group success, but does not necessarily empower individuals to start a group. The use of asynchronous chat around specific interests can help empower participants to take the first step in organizing an activity. From previous research, we know group chats enable involved parties to suggest details in planning events. The most significant issue is the off-topic chat or banter that crowds group chats [9]. By focusing an asynchronous chat under the label of a specific interest (e.g., beach volleyball chat in the search results for beach volleyball), the chat is less likely to get off-topic. When multiple people are discussing a topic locally, this gives a single individual confidence to suggest a meet up with like-minded individuals.

Finally, development of a feature that allows for suggestions when planning an activity will empower a community of participants to organize an event, rather than forcing a single individual to hold the responsibility of choosing a location, date, time, and planning the activity. For example, a “brainstorm” for beach volleyball involves Person A suggesting a date, Person B suggesting a time, and Person C suggesting the local beach court. Other individuals can RSVP based on the details (to see how many are interested in participating). Person B can then approve the brainstorm and have it invite anyone who searched for or has interest in beach volleyball nearby. Instead of one person having to take responsibility for all the details, several people only need to provide a suggestion to help make an activity happen. Since several people are invested, a potential critical mass is formed as well. This gives even more chance for the activity to take place, and a successful group activity to occur.

These three features have the potential to change the interest-based group activity coalescing process through empowering communities to create events, where individuals would normally not take the lead. These features need to be tested, which is the next step in this research.

7.6 Limitations

One of the limitations to our survey was the disparity between success of our 100-person sample and the general 663 observed groups. The respondent group had a 91% success rate versus 74% within the first month. We counter with the fact that we contacted all groups randomly, while they were in their infancy. We could not predict the success or decline of these groups. However, there may be a correlation among the overall enthusiasm of the leader, willingness to answer a survey about the group, and willingness to put in the hard work that is necessary for group success.

7.7 Conclusion

This research presented a mixed-method study of organizational practices within an event-based social network, in an attempt to find out what characterizes decision-making processes around and challenges to starting new social activity groups. Through our survey, we discovered that fledgling group organizers on Meetup face the struggle of keeping their group relevant and active. With such a high turnover rate (26% of the 763 groups closed within one month), it takes a lot of work and determination by organizers to keep members returning to meetups. The first meetup is a health barometer for long-

term group success, and can spur organizers to believe in what they are doing. Knowing individuals who share an interest or being part of a group does not make a group successful.

Our follow-up interviews helped to describe a wide set of common organizational practices among Meetup organizers in terms of challenges, organizers' definition of success, and the significant amount of work that goes into organizing activities and group maintenance. On the basis of this description, we conclude that organizers had four different reasons to start a group through Meetup. 1) Individuals were unable to find others who shared their interest locally, and used Meetup as a way to advertise to others. 2) A social group around the topic already existed, either as a community based group or as a group hosted through another EBSN. The organizers found that Meetup provided an appropriate platform and were able to successfully migrate the group, bringing at least a part of the original group with them to create a core. 3) Members were kicked out of their Meetup group and started a new group for the same interest, often bringing a proportion of the members from the original group with them. 4) Fourthly, people who found themselves in a new area or a new situation (e.g., being in a new job or being a student who now lives on campus) without an obvious opportunity to socialize around an activity of interest started groups in order to find like-minded people to socialize with. These four reasons can help us understand how to support organizational practices through social media technologies.

We also investigated how event-based social networks such as Meetup play a role in the coalescing process in comparison to how organizers perceived coalescing *via*

traditional methods. Our results show that Meetup was a necessary tool for organizers to create or continue to maintain their group. While Meetup does provide the necessary basis for organizing, there are still aspects that need work. For some, controlling the number of members was difficult because their group exceeded the expected success; for others, communicating the true purpose of the group activities through the description was sometimes difficult. However, most of the organizers found that the challenges they faced were countered by the advantages of the overall Meetup framework.

7.8 Summary

This research focused on Meetup groups to understand the how organizers use EBSNs for group coalescing. Our next step is to study a large number of organizers within a local community, to understand the tools and methods they use to coalesce with others, as well as to gain insight into what tools organizers need in order to be successful and, thereby, increasing social capital with communities.

CHAPTER 8

EXAMINING COLLECTIVE ACTION BEHAVIORS OF STUDENT ORGANIZERS

Understanding the current coalescing process within a community leads toward learning the issues that impact people from organizing interest groups. Study 2 focused on behaviors and experiences of organizers who already created groups. The findings of Study 2 suggested groups are more successful with the ideal amount of attendance and participation early in group formation. This research focused on a community where even passive members have taken steps toward finding others (e.g., signing up for an account, browsing for groups, or listing their interests).

To broaden this research, Study 3 focused on a small community of an urban university. The intentions and interests of university members are lesser known to the community – where some come on campus to focus only on studies, there are others who are willing to participate in activities. Without the use of technology to directly advertise to interested individuals, organizers must find other ways to find others who share their interests.

Study 3 surveyed students at an urban university to understand their organizing and seeking behavior for interest-based group activities, as well as their top interests. Attributes of group success echoed many of the results from Study 2, where group success was correlated with initial success, which was based on ideal attendance and participation. Study 3 also gathered evidence that community members who share similar interests are not able to find each other even when they wish to do so.

8.1 Research Questions and Hypotheses

***RQ1:** How do leaders publicize their groups and which methods seem most successful?*

***RQ2:** What are the main reasons why people do not organize a group activity related to their main interests?*

Since this study expands upon the research done in Study 2, the hypotheses will build upon the previous study as well:

***H1a:** Organizers' perceived success is correlated to having the ideal amount of participants at the first group meeting.*

***H1b:** Organizers' perceived success is correlated to having the ideal amount of active participation at the first group meeting.*

***H2a:** Group success is positively associated with organizers' perceived success.*

***H2b:** Group success is positively associated with effort/work of the leadership*

***H3:** Perceived success / Group Success is positively influenced by forming a group of interested individuals prior to publicly advertising the group or activity.*

***H4:** Because of information overload, people miss opportunities to participate in Interest-based group activities.*

8.2 Method

8.2.1 Survey Method

The survey was built in SurveyMonkey.com, and a link was sent to members of the university community, to gather quantitative data on their experiences finding clubs and people who share similar interests. The surveys were completed online – respondents were led through open-ended and multiple-choice questions as well as Likert-type scale questions.

Respondents answered a series of standard demographic questions, including age, gender, current year of study, student status (e.g., full-time, part-time), and major. Respondents self-reported how far they lived from campus on a multiple-choice scale (e.g., on-campus dorm, off-campus dorm, fraternity/sorority house, within 5 miles, more than 5 miles from campus) and how many days they are typically on campus. Answers to these questions were used later to test time on campus/distance from campus and their motivation to participate/organize activities on campus. This is an important factor, since NJIT is considered a “commuter school” where most students commute, and those who live on/near campus often travel over 5 miles home (e.g., to their parents’ house or official residence) for the weekend. This is unlike schools where the student population stays on or near campus every day during the school year.

After respondents answered demographic questions, the survey collected their interests in order to analyze the number and similarity of interests across the campus. Participants were required to give three personal social interests, “Please list your top 3 interests that you really care about doing with other people.” They were asked (but not

required) to provide up to 5 interests they have because of their friends. Example: “If you don’t like baseball, but watch it with friends because they love baseball, answer ‘watch baseball.’” Finally, respondents listed up to 5 other social activities they would *like* to do with others (again, not required). The three top personal interests were referenced in the survey to answer questions about activities respondents organized, as well as analysis of the types of interests students have on campus. The list of interests provided gave a look into how many people shared the same interest within this community.

Participants referenced each of their three interests to answer questions about their level of interest in social activities, the frequency of participation on campus, (e.g., “how often do you participate in activities for these interests” and “how often would you LIKE to participate in an activity for...”) Participants were split into two groups once they answered “Do you organize activities for your interests on campus?” Those who said no were asked the final remaining questions (see below), while self-reported organizers answered questions related to organizing activities for their top three interests.

Those who claimed to be organizers answered questions about each interest – how often they organize activities, if they lead alone or with others, and the level of effort they put forth to organize. This was followed by questions similar to Study 2, regarding the first time they organized for this activity on campus, “How many people actually came,” “Was there active participation,” and “How successful do you feel the first activity was?” The questions were used to determine success, similarly to the Meetup study.

Finally, every respondent answered questions regarding finding activities on campus: “What activities do you wish to participate in but do not? How do you find out

about activities?” The list of activities from this question was compared to the top three interests to determine if social needs were being met by available activities on campus. “How frequently do you feel overloaded by too many activity recommendations?” This final question was used to determine if participants had issues with technology and finding activities, due to information overload.

8.2.2 Survey Creation method

Survey questions were based on previous questions used in Study 1 and 2, and refined to fit the format of this survey. The questions were first tested on two undergraduate classes of 30 students each. Survey questions were analyzed for understanding and correct responses, and then revised. The questions about interest-based activities were reiterated several times in order to collect the right format of information (e.g., VERB NOUN phrases such as WATCH BASEBALL) and focus on social activities, rather than solo activities (e.g., no READ BOOKS activity). The survey was then sent out to 100 undergraduate students in the College of Computing Sciences. After looking through the results and finding the types of answers satisfactory, the final survey link was sent out *via* email to the student body of NJIT. An email was sent to every NJIT student through the NJIT email system. The email asked students to participate in a survey, with a SurveyMonkey.com link. Participants were given a chance to win one of three \$25 Amazon or Amex gift card for completing the survey.

8.3 Participants, Data Collection, and Analysis

8.3.1 Descriptive Statistics

781 responses were recorded, with at least their interests filled out. 511 participants completed the entire survey. 64% were male, 36% were female.

Participants were distributed mostly in the college age range, and distributed almost evenly across all college years. Juniors were slightly less represented in the group, with 84, rather than 100-110 with the other groups. Any participant who was under 18 or was not a student was rejected from the study.

This university is considered a “commuter school” where most students live off-campus, and come to campus for classes. One-third of participants lived on campus in the dorms, and 45% lived over 5 miles away from campus. This is reflected in participants’ time spent on campus, as well. 65% said they were on campus 5 days a week, and only 33% stayed on campus 6-7 days a week. This is something interesting to design for, as the ebb and flow of campus life affects who is available for activities on different days.

Table 8.1 Study 3 Demographics

Student Status

Year	Frequency	Percentage
Freshman	100	19.6%
Sophomore	100	19.6%
Junior	84	16.4%
Senior	110	21.5%
Masters/Graduate	95	18.6%
Ph.D.	22	4.3%

Age

Age	N	%
18-19	146	28.2
20-22	179	35
23-29	148	29
30+	38	7.8

How Far Participants Live From Campus

	Frequency	Percent
On-Campus dorm	172	33.7
Off-campus dorm (e.g., University Center)	11	2.2
Fraternity/Sorority house	11	2.2
Within 5 miles of campus	87	17
More than 5 miles from campus	230	45
Total	511	100

Days Spent on Campus Per Week

Days per week	Frequency	Percent
0	14	2.7
1	9	1.8
2	21	4.1
3	43	8.4
4	94	18.4
5	165	32.3
6	48	9.4
7	117	22.9
Total	511	100

59% of participants participate in an activity for their top three interests on campus at least once a month, and 25% never participate. Only about 10% of participants participate in activities for their interest daily for any of the three interests. 156 participants (34%) self-reported that they organized activities for at least one of their top three interests on campus. 121 organized for interest 1, 89 for interest 2, and 75 for interest 3.

Table 8.2 Activity Participation for Interest 1

	Frequency	Percent
Never	93	19.5
Less than once a month	77	16.1
Once a month	42	8.8
More than once a month	56	11.7
Weekly	64	13.4
More than once a week	67	14
Daily	79	16.5
Total	478	100

Table 8.3 Activity Participation for Interest 2

	Frequency	Percent
Never	101	21.1
Less than once a month	74	15.5
Once a month	48	10
More than once a month	65	13.6
Weekly	69	14.4
More than once a week	70	14.6
Daily	51	10.7
Total	478	100

Table 8.4 Activity Participation for Interest 3

	Frequency	Percent
Never	99	20.7
Less than once a month	76	15.9
Once a month	49	10.3
More than once a month	74	15.5
Weekly	57	11.9
More than once a week	70	14.6
Daily	53	11.1
Total	478	100

8.4 Results

H1a: *Organizers' perceived success is correlated to having the ideal amount of participants at the first group meeting.* Analyzing group success began with comparing perceived success to both participation and attendance. Chi-square test results showed that there was a significant relationship between the number of attendees and perceived success (Pearson χ^2 (d.f.=16, N=108) =70.490, $p<0.001$), supporting H1a.

Table 8.5 How Successful do you Feel the First Activity Was? * How Many People Actually Came? Crosstabs

		How many people actually came?					Total
		Far too few	Too few	About right	Too many	Far too many	
How successful do you feel the first activity was?	Very unsuccessful	2	0	0	0	0	2
	Unsuccessful	2	3	2	1	0	8
	Unsure	0	7	14	1	0	22
	Successful	1	3	49	6	2	61
	Very Successful	0	1	11	2	1	15
	Total	5	14	76	10	3	108

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	70.490	16	.000
Likelihood Ratio	39.456	16	.001
Linear-by-Linear Association	23.205	1	.000
N of Valid Cases	108		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda Symmetric	How successful do you feel the first activity was? Dependent	.101	.058	1.654	.098
	How successful do you feel the first activity was? Independent	.106	.073	1.399	.162
	How many people actually came? Dependent	.094	.079	1.141	.254
Goodman and Kruskal tau	How successful do you feel the first activity was? Dependent	.101	.037		.000
	How many people actually came? Dependent	.147	.041		.000

When testing H1b: *Organizers' perceived success is correlated to having the ideal amount of active participation at the first group meeting*, the chi-square results showed that there is significance in the amount of active participation (Pearson χ^2 (d.f.=16, N=108) =71.608, $p<0.001$). Like the Study 2, both attendance and participation were measures of perceived success for activity organizers.

The ideal amount is a subjective number to the organizer – where not too many or too few people attend a group meeting, or provide active participation at that meeting.

Table 8.6 How Successful do you Feel the First Activity Was? * Was There Active Participation? Crosstabs

		Was there active participation?					Total
		Far too little	Too little	About right	Too much	Far too much	
How successful do you feel the first activity was?	Very unsuccessful	2	0	0	0	0	2
	Unsuccessful	1	3	4	0	0	8
	Unsure	1	4	17	0	0	22
	Successful	0	5	49	4	3	61
	Very Successful	0	1	10	3	1	15
	Total	4	13	80	7	4	108

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	71.608	16	.000
Likelihood Ratio	34.979	16	.004
Linear-by-Linear Association	24.144	1	.000

		Value	Asymp. Std. Error	Approx. T ^b	Approx. Sig.
Lambda	Symmetric	.053	.036	1.427	.153
	How successful do you feel the first activity was? Dependent	.043	.029	1.427	.153
	Was there active participation? Dependent	.071	.049	1.427	.153
Goodman and Kruskal tau	How successful do you feel the first activity was? Dependent	.074	.024		.011
	Was there active participation? Dependent	.111	.033		.000

Since H1a and H1b were proven significant, the next step was to test H2a: *Group success is positively associated with organizers' perceived success*. This study did not track group success over time, which was done in Study 2. Instead, respondents were asked if they attempted to organize a subsequent activity for their interest based on the outcome of their first time organizing. Chi-square test results show that there was a significant relationship between group success and perceived success (Pearson χ^2 (d.f.=8, N=108) =36.387, $p<0.001$), supporting H2a. These results showed that when the first activity was considered a success by the organizer, they were more likely to continue organizing activities for that interest.

Table 8.7 How Successful do you Feel the First Activity Was? * Based on the Outcome of your First Time Organizing - Did you Attempt to Organize Again? Crosstabs

		Based on the outcome of your first time organizing - did you attempt to organize to [interest 1] again?			Total
		Yes, successfully	Yes, unsuccessfully	No	
How successful do you feel the first activity was?	Very Unsuccessful	0	1	1	2
	Unsuccessful	5	1	2	8
	Unsure	11	3	8	22
	Successful	58	1	2	61
	Very Successful	14	0	1	15
Total		88	6	14	108

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.387	8	0
Likelihood Ratio	32.278	8	0
Linear-by-Linear Association	19.013	1	0
N of Valid Cases	108		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda	Symmetric	.134	.050	2.384	.017
	How successful do you feel the first activity was? Dependent	.170	.073	2.185	.029
	Based on the outcome of your first time organizing - did you attempt to organize to [q8] again? Dependent	.050	.049	1.005	.315
Goodman and Kruskal tau	How successful do you feel the first activity was? Dependent	.117	.042		0
	Based on the outcome of your first time organizing - did you attempt to organize to [q8] again? Dependent	.237	.066		0

The organizer perceiving the first meetup as a success influences longer-term group success, the perceived success variable of each interest was compared to answers to the question, “Based on the outcome of your first time organizing - did you attempt to organize [interest] again?” There was a correlation between the two variables in all three of the interests. Interest 1 ($r = .422$, $n = 108$, $p = .000$); Interest 2 ($r = .483$, $n = 82$, $p = .000$); and Interest 3 ($r = .350$, $n = 75$, $p = .002$). This significance shows that successful first meetups led to follow-up meetups.

Table 8.8 Success * Organize Again (Interest 2) Crosstabs

		Based on the outcome of your first time organizing - did you attempt to organize to [interest 2] again?			Total
		Yes, successfully	Yes, unsuccessfully	No	
How successful do you feel the first activity was?	Very unsuccessful	0	1	2	3
	Unsuccessful	3	1	1	5
	Unsure	12	6	6	24
	Successful	36	3	2	41
	Very Successful	9	0	0	9
Total		60	11	11	82

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.293	8	.002
Likelihood Ratio	25.510	8	.001
Linear-by-Linear Association	18.883	1	.000
N of Valid Cases	82		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda Symmetric		.143	.060	2.121	.034
	How successful do you feel the first activity was? Dependent	.171	.092	1.728	.084
	Based on the outcome of your first time organizing - did you attempt to organize to [interest 2] again?	.091	.061	1.432	.152
Goodman and Kruskal tau	How successful do you feel the first activity was? Dependent	.093	.044		.000
	Based on the outcome of your first time organizing - did you attempt to organize to [interest 2] again? Dependent	.197	.054		.000

Table 8.9 Success * Organize Again (Interest 3) Crosstabs

		Based on the outcome of your first time organizing - did you attempt to organize to [interest 3] again?			Total
		Yes, successfully	Yes, unsuccessfully	No	
How successful do you feel the first activity was?	Very unsuccessful	1	1	1	3
	Unsuccessful	2	0	3	5
	Unsure	10	3	4	17
	Successful	35	1	2	38
	Very Successful	10	0	2	12
Total		58	5	12	75

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.826	8	.005
Likelihood Ratio	19.339	8	.013
Linear-by-Linear Association	9.084	1	.003
N of Valid Cases	75		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda Symmetric		.093	.067	1.306	.192
	How successful do you feel the first activity was? Dependent	.108	.081	1.279	.201
	Based on the outcome of your first time organizing - did you attempt to organize to [interest 3] again? Dependent	.059	.128	.448	.654
Goodman and Kruskal tau	How successful do you feel the first activity was? Dependent	.085	.040		.001
	Based on the outcome of your first time organizing - did you attempt to organize to [interest 3] again? Dependent	.175	.081		.001

Testing H2b: *Group success is positively associated with effort/work of the leadership.* This was not significant (Pearson χ^2 (d.f.=16, N=108) =19.341, $p < 0.251$). The amount of effort or time put in by organizers does not equate to success. This is similar to the findings from the Meetup organizers, where organizers felt the work of putting together a meetup was not inherently difficult. It is more time-consuming for those who have to look for differing locations (e.g., photography, hiking), which would not commonly happen on campus. Since organizers have a vested interest in their activity, they may not consider organizing to be difficult or time-consuming work.

Similarly to Study 2, we tested H3: *forming a group of interested individuals prior to publicly advertising the group or activity positively influences Group Success.* We tested multiple variables: number of people they knew who shared the same interest, previous group formation (and number of participants), and previous group participation. None of these tests proved significant. We failed to reject the null hypothesis, and cannot conclude that knowing others before organizing the first meetup affects group success.

H4: Because of information overload, people miss opportunities to participate in Interest-based group activities. There was a significant correlation between information overload and missing opportunities (χ^2 (d.f.=4, N=424) =19.341, $p < 0.004$). Participants had difficulty finding activities related to interests because advertising for non-relevant activities made it difficult to find activities they wanted to attend.

Table 8.10 Information Overload, Interest 1

		On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations?					Total
		Never	Almost never	Sometimes	Almost always	Always	
How often do you participate in an activity with others on campus?	Never	40	18	22	4	1	85
	Less than once a month	20	25	21	2	2	70
	Once a month	7	9	11	7	1	35
	More than once a month	15	15	16	3	1	50
	Weekly	10	19	25	2	1	57
	More than once a week	2	22	26	6	2	58
	Daily	15	18	30	6	0	69
Total		109	126	151	30	8	424

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	56.827	24	.000
Likelihood Ratio	59.846	24	.000
Linear-by-Linear Association	16.636	1	.000
N of Valid Cases	424		

		Value	Asymp. Std. Error	Approx. T ^b	Approx. Sig.
Lambda	Symmetric	.067	.028	2.340	.019
	How often do you participate in an activity with others on campus? Dependent	.056	.030	1.827	.068
	On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.081	.037	2.128	.033
Goodman and Kruskal tau	How often do you participate in an activity with others on campus? Dependent	.024	.007		.000
	On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.041	.011		.000

Table 8.11 Information Overload, Interest 2

		On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations?					Total
		Never	Almost never	Sometimes	Almost always	Always	
How often do you participate in an activity with others on campus?	Never	41	17	30	4	1	93
	Less than once a month	16	20	29	1	2	68
	Once a month	9	15	12	7	0	43
	More than once a month	11	20	18	4	0	53
	Weekly	12	19	24	4	2	61
	More than once a week	10	20	26	6	1	63
	Daily	10	15	12	4	2	43
Total		109	126	151	30	8	424

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	41.218	24	.016
Likelihood Ratio	41.464	24	.015
Linear-by-Linear Association	8.034	1	.005
N of Valid Cases	424		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda Symmetric	How often do you participate in an activity with others on campus? Dependent	.043	.024	1.784	.074
	On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.021	.021	.981	.326
		.070	.045	1.492	.136
Goodman and Kruskal tau	How often do you participate in an activity with others on campus? Dependent	.019	.006		.002
	On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.027	.010		.005

Table 8.12 Information Overload, Interest 3

		On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations?					Total
		Never	Almost never	Sometimes	Almost always	Always	
How often do you participate in an activity with others on campus?	Never	37	22	29	3	1	92
	Less than once a month	17	16	29	7	2	71
	Once a month	11	14	15	1	0	41
	More than once a month	10	21	26	7	0	64
	Weekly	11	21	12	3	2	49
	More than once a week	11	20	22	4	2	59
	Daily	12	12	18	5	1	48
Total		109	126	151	30	8	424

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.749	24	0.133
Likelihood Ratio	33.267	24	0.099
Linear-by-Linear Association	4.645	1	0.031
N of Valid Cases	424		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda Symmetric		.036	.017	2.089	.037
	How often do you participate in an activity with others on campus? Dependent	.015	.011	1.390	.165
	On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.062	.035	1.714	.086
Goodman and Kruskal tau	How often do you participate in an activity with others on campus? Dependent	.014	.005		.049
	On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.022	.009		.050

		On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations?					Total
		Never	Almost never	Sometimes	Almost always	Always	
Do you ever organize a social activity on campus with people other than your close friends?	Yes	23	34	52	16	4	129
	No	86	92	99	14	4	295
Total		109	126	151	30	8	424

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.215	4	0.004
Likelihood Ratio	14.751	4	0.005
Linear-by-Linear Association	13.661	1	.000
N of Valid Cases	424		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda	Symmetric	.005	.015	.324	.746
	Do you ever organize a social activity on campus with people other than your close friends to [q8], [q9], or [q10]? Example: organizing a Bollywood dance festival, or playing pick-up basketball with people in the gym) Dependent	.016	.047	.324	.746
	On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations?	0.000	0.000	.	.
Goodman and Kruskal tau	Do you ever organize a social activity on campus with people other than your close friends to [q8], [q9], or [q10]? Example: organizing a Bollywood dance festival, or playing pick-up basketball with people in the gym) Dependent	.036	.019		.004
	On social media sites, (e.g., Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.008	.005		.011

8.5 Limitations

The study is limited by the fact that the survey was conducted in a university surrounding. Another limitation is that the survey relies on self-reported data collection. Self-reported data does not completely reflect people's beliefs and actions in real life situations. Misunderstanding of the question can also contribute to inaccuracies in the data. Obviously, surveys have an inherent limitation regarding their ability to measure impacts of different contexts because, as opposed to direct observation, it is hard to deal with 'context' in survey research. A number of these limitations are addressed by the qualitative study presented below.

8.6 Conclusions

The study set out to learn about students at an urban university. We wanted to know how many people were willing to organize interest-based group activities, and of those, what were the challenges to success at an urban university. This study was designed to replicate the study on Meetup organizers. This survey collected the interests of urban university students, as well as investigated those who organize activities.

8.6.1 Wants and Needs of the Community

One major finding was the needs of the community are not being met. There was a major similarity between the top 20 interests mentioned and the activities participants wished they participated in on campus. Eleven of the top interests mentioned by participants were also listed as "activities I would like to do on campus, but I don't know others who are also interested."

For example, 10 participants mentioned they enjoyed tennis, and six participants did not know others who shared this interest. On this particular small campus, there is a tennis facility that is open to students, yet, a number of people obviously do not take advantage. As with the previous studies, participants were not able to advertise efficiently to others that they would be willing to participate in activities for interests they care about. But is it simply enough to create a system that lets everyone know each other's interests? We find such a system would not completely solve the issue. We still need to deal with removing the challenges to begin the coalescing process.

Table 8.13 A List of Participant's Top 20 Frequently Mentioned Interests (From the Top 3 Interest Question)

Interests	Frequency	Appears in wish list	Frequency in wish list
Video Games	64	X	4
Reading	47	X	3
Soccer	36	X	5
Movies	34	X	7
Music	31	X	4
Technology	22	X	2
Programming	19	X	2
Cricket	15		
Cooking	13		
Photography	12	X	2
Tennis	10	X	6
Watching TV	9		
Badminton	8	X	4
Chess	8		
Computers	8		
Biking	7		
Drawing	7		
Swimming	7	X	4
Travelling	7		

8.6.2 Success: A Summary

Organizer's perceived success was based on attendance and participation at their first event. When attendance and participation were optimal, the organizer felt the event was successful. This motivated them to create more interest-based group activities. On the other hand, success was not based on the amount of work that organizers put into their activity. These findings pointed to an interesting observation – it was not about knowing others who share an interest, but rather knowing others who were willing to participate that makes a successful interest group.

8.6.3 Challenges to Organizing

For the 300 participants who were not organizers, the top reasons included: a) "I don't know other people who share my interests," b) "I don't know where to find others who share my interest," and c) "It is too much effort to get people to show up together." These reasons were the common challenges that stop non-leaders from organizing activities. It is difficult for people to find others who share similar interests, and without knowing where those people are, or how to find them; often people are disheartened from even beginning the coalescing process.

Table 8.14 Reasons Participants Do Not Organize

For what reasons do you not organize for your interest?	
Reason	Frequency
I'm not the type of person to lead	57
I don't know other people who share my interests	114
I don't know where to find others who share my interest	113
It is too much effort to find other people	88
It is too much effort to get people to show up together	113
I already participate in a group for this interest	65
I am not motivated to start my own group	77
Other	51

Fifty-one participants chose “other” as their reason for not organizing activities on campus. The other reasons given included: too busy for activities, conflicting schedules make it hard to schedule activities with others, would rather do activities with friends at home instead of schoolmates, other commitments take up their time (e.g., school, work, organized sports practice). It is interesting that 17 participants mentioned that they were too busy to organize activities on campus. If they knew about others who shared their interest, would they be inclined to organize? For most participants who do not organize, with the right set of tools, would they be willing to give minimal effort in order to coalesce with others?

8.7 Summary

This chapter presented a survey study where 456 participants discussed their interests, their activity organizing behavior, and reasons they do or do not organize activities on campus. The survey study contributed to our understanding of what motivates organizers

to begin the coalescing process in a small community, and what factors lead to group success. However, new challenges were uncovered, such as understanding the optimum number of interested participants it takes for an individual to start the coalescing process. Based on these findings combined with the previous studies, this research next presents a concluding study using a prototype user interface for a mobile application to help interest groups form and succeed.

CHAPTER 9

TESTING COLLECTIVE ACTION INITIATION USING A GROUP COALESCING USER INTERFACE

The previous three studies identified challenges to organizing which prevent individuals from initiating groups or activities. These challenges include: a) lack of knowledge of the existence of others who share an interest and are willing to participate in an activity; b) an individual needs to step forward as a leader, taking on the burden of initiating collective action; and c) it takes an overwhelming amount of time and effort to recruit others. Most individuals (especially non-leaders) are not willing to invest the effort necessary to overcome these challenges to organizing, which means there are many missed opportunities for interest-based group activities. Results from the previous studies also showed that while technology does assist some in initiating collective action, it does not do this for the majority of cases.

These challenges relate to collective action and critical mass. Collective action is action taken by a group of people who share a common goal. Most collective action research focuses on activities such as protesting for a cause or a community building a playground. Collective action needs two things to exist: a) a ‘critical mass’ of individuals who are willing to put in effort toward making the cause happen, and b) a collective goal shared with the group. This research studied collective action for more common group activities – any event where people come together to participate in a group activity. The first step in collective action is collective action initiation, where someone decides to take action toward a goal. After initiation comes gaining critical mass. Without the ability to

gain a critical mass of participants, organizers often fail to coalesce for their activities. Often, not knowing how or where they will find that critical mass is a challenge that prevents individuals from initiating collective action.

Rittel and Webber (1973) define a wicked problem as one where the information required to understand the problem is dependent on the ideas about how to solve it. “The problems that scientists and engineers have usually focused upon are mostly ‘tame’ or ‘benign’ ones. As an example, consider a problem of mathematics, such as solving an equation; or the task of an organic chemist in analyzing the structure of some unknown compound. For each the mission is clear. It is clear, in turn, whether or not the problems have been solved” (Webber pp. 160). “Wicked problems, in contrast, have neither of these clarifying traits; and they include nearly all public policy issues - whether the question concerns the location of a freeway, the adjustment of a tax rate, the modification of school curricula, or the confrontation of crime” [177].

In other words, the process of solving the problem helps define the problem. This represents view distinct from traditional science, which requires repeated experiments and measures. Zimmerman et al. provided HCI researchers the concept of research through design wherein the process of exploring the design problem is also the process used to explore a research problem. They propose that through the act of understanding a problem, formulating and evaluating potential solutions, and iterating on earlier findings to produce new designs, researchers produce artifacts and knowledge that are valuable findings in their own right [158].

This research focused on understanding the wicked problem of generating a

design for a user interface to support interest-based group activity coalescing using a research through design approach. Specifically, the objective of this design work was to explore ways to:

- Display shared community interest through a list of avatars of those willing to participate in an activity.
- Produce a common “chat space” where those who share the interest can communicate about it with others.
- Give the ability to not only create an activity, but to suggest part of it (i.e., suggesting only a time or a place) so that responsibility is divided among several individuals.

In focusing on these three design features, this research set out to understand how these features would increase the likelihood an individual (specifically, a non-leader) would agree to begin the coalescing process. This could potentially increase the number of interest-based group activities happening. The UI design went through an iterative design process to develop the features above. Once the final interface was developed, the fourth study was designed to test this interface in differing scenarios – where participants would view a specific number of interested people and gathered whether the participant would use each feature, essentially initiating collective action (i.e., taking the first step in organizing an activity). This in turn, not only allowed us to test the proposed solution but also our understanding of the impact of phenomena such as “critical mass”, “social facilitation”, and “social loafing” (discussed in chapter 2 with various definitions) on peoples’ willingness to suggest/initiate collective action.

9.1 Research Artifact

Throughout this dissertation research, evidence suggested that people who were not natural leaders would be willing to begin the coalescing process if the challenges to coalescing were significantly reduced. Instead of having to own the whole coalescing process (e.g., deciding the location, time, activity, and inviting/finding others), it was believed that people would start the process if they only had to be part of the process or allow a system to do the work for them (e.g., announce they were interested, suggest a place, or agree to attend if a system found others and organized an event). This study aimed to test this idea by showing “lightweight coalescing features” that dispersed the coalescing effort among several individuals. These coalescing features are “lightweight” in comparison to forcing an individual to create a group or activity alone without any knowledge of shared interest within a community if they wish to find others. Rather than placing the entire burden of coalescing on a single individual, these features either disperse responsibility to multiple individuals or increase visibility between those who share interest.

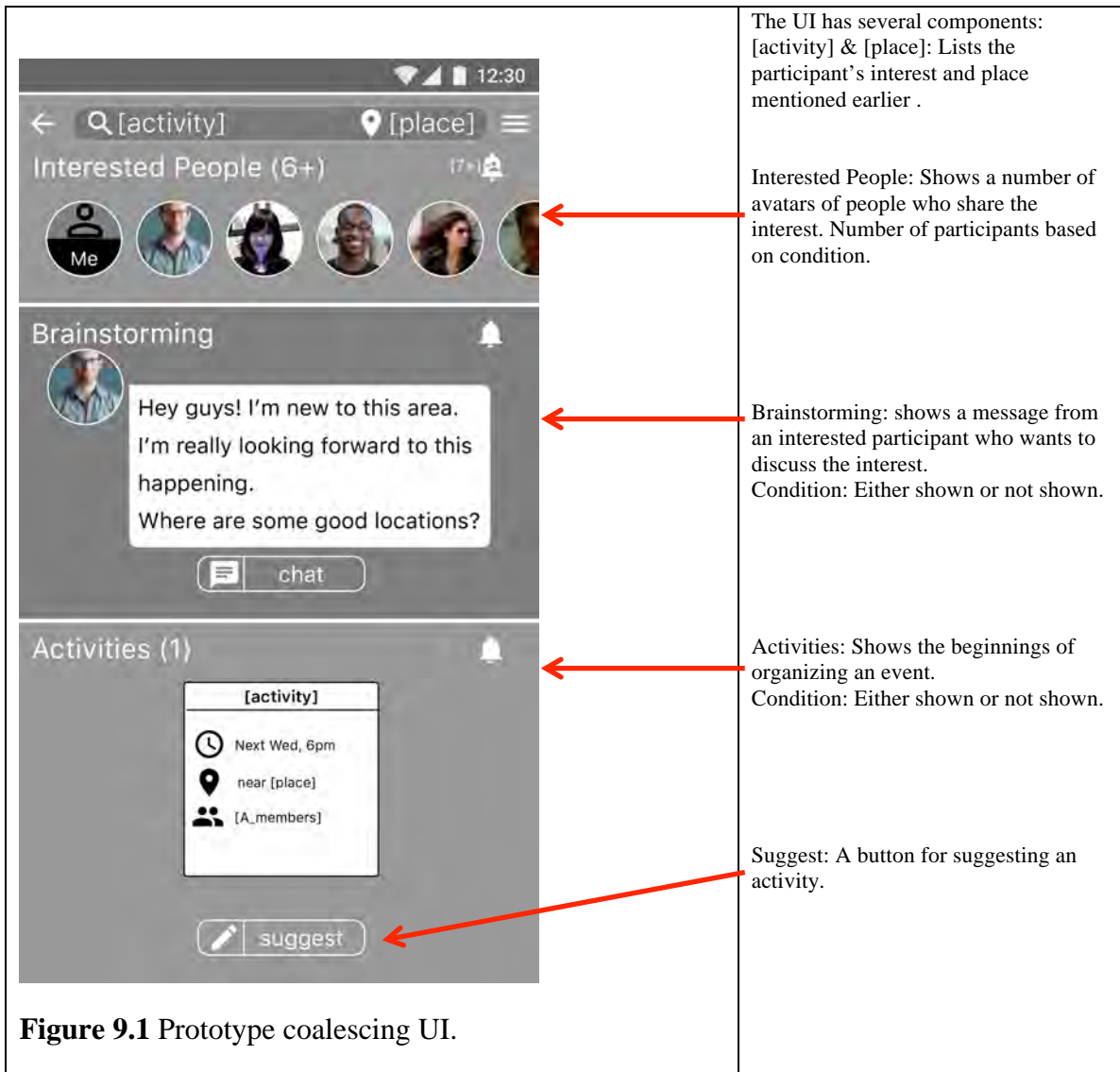
For this study, a single-image prototype UI was designed with four lightweight coalescing features (see Figure 9.1):

- a) A notification system to notify others of their interest in an activity.
- b) Brainstorming: group chat about an interest/activity.
- c) Activities: the ability to suggest aspects of an activity (e.g., a date, a time, and a place) where the group uses a diplomatic process to decide, rather than having a single individual decide.

d) Suggest: a button that participants presume leads to organizing an activity.

The user interface was to be presented to each participant in order to test his or her understanding and willingness to use each feature. The Interested People section showed the number of people who already searched for the same interest and agreed to notify others that they share the interest. This was to test how many people are needed to push an individual to organize. The Brainstorming section was a space for individuals to discuss their interest with others. The idea was that as more people discussed their interest, the more likely someone would agree to meet, since there was a display of active interest. The Activities section showed activities that were organized or in the process of being organized by others, and the Suggest button gave the ability to suggest a part of an activity (e.g., a place, a time, or a date).

These features were designed because they each showed a form of active participation between those who share the same interest. This study was to test how showing others who were interested or discussions on the interest would increase the likelihood an individual would begin the coalescing process. This is unlike Meetup, where there is no display of shared interest when searching for activities.



9.2 Research Questions and Hypotheses

The goal of this study was to test participants' willingness to initiate collective action when given insight into shared community interest. As mentioned in Chapter 2, there are several different theories or definitions of collective action based on research. Some of the more prominent theories tie critical mass theory to collective action to model how it

works [84]. Social phenomenon such as social facilitation and social loafing moderate the effects of collective action [155, 157].

Chapter 2 of this dissertation discussed how collective action needed both a critical mass of members and a shared goal for successful collective action. The results of study 2 and 3 found that it was difficult for people to find the critical mass needed, even with technology's assistance. Finding and recruiting those who have a shared interest takes a large amount of work and time, which is often difficult for people. Potential organizers do not know others who share their interest, and decide to do nothing instead of putting in the effort to find others. For this reason, the UI (discussed in Section 9.1) was designed with displaying interest of others both by listing people and by including active conversations.

To analyze collective action and its moderators in interest-based group activity coalescing, the collected data was modeled and compared to current models of collective action (e.g., collective action as function and as a threshold), social facilitation, and social loafing. This study used the mobile UI (see section 9.1) to test the following research questions and hypotheses.

The previous studies and the design of the mobile UI led to the following research questions:

RQ1: *Can lightweight coalescing features increase the likelihood non-leaders will join in organizing interest-based group activities?*

RQ2: *What is the perceived likelihood of use of the four features presented?*

***RQ3:** Is awareness of other interested people, in the context of activity participation parameters, associated with collective action initiation?*

In general, this research set out to test whether the lightweight coalescing features would increase the likelihood a user would start the coalescing process (i.e., initiate collective action). Initiating collective action would be to take the first step in organizing an activity by agreeing to be the first to organize or attend it. This study was set up with a number of conditions for participants, where each participant saw a number of individuals who shared their interest along with displays of feature usage. The following hypotheses test whether seeing shared community interest will increase the likelihood of participants to use lightweight coalescing features. Hypotheses related to features are as follows:

9.2.1 Critical Mass as a Threshold Model

***H1:** Awareness of a minimum number people also interested in the respective activity will be positively associated with collective action initiation.*

The threshold model of critical mass requires a specific minimum number of people to agree to participate [54]. Once that number is reached, then the activity is ‘on’ and achieving more participants becomes much easier. After looking at the UI, participants were asked if they would “organize a new activity” for their interest (Figure 9.10). To test this hypothesis, a model was built by testing the effect of several

independent variables on the likelihood participants would organize an activity. The dichotomous dependent variable for the model was whether the participant agreed to organize a new activity. In order to support this hypothesis, the independent variable representing viewing the minimum number of participants needed must be in the final model.

9.2.2 The Impact of Social Facilitation on Collective Action Initiation

H2: The greater the number of people in the “Interested People” section, and the more often one has organized activities for the respective interest in the past, the more likely one will initiate collective action.

As stated in Chapter 2.3.2, social facilitation is the tendency for individuals to act differently when in the presence of others than when alone. One example in research is when a professional basketball player is asked to shoot free throws. Whether the pro is alone or in front of a crowd, because he is an expert and a free throw shot is easy, he will perform similarly. On the other hand, an average person who is less experienced in basketball, when asked to shoot 3-pointers, will feel more stress and more likely fail when in front of a crowd compared to shooting a 3-pointer alone.

To support this hypothesis, participants who organize often for their interest, and who see a large number of participants will be more likely to organize their activity using this app. On the other hand, those who do not organize often, upon seeing many others who are interested, would be much less likely to organize an activity using this app. The dichotomous dependent variable for the model was whether the participant agreed to

organize a new activity. The independent variables that must appear in the final model include Organizer, a categorical variable where participants described how often they organized an activity for their interest and numPeopleShown, the number of people who were shown to each participant in the Interested People section of the UI.

9.2.3 Critical Mass as a Production Function

H3: Awareness of other people and their contributions, in relation to the number of people needed for an activity, will be positively associated with IT artifact collective action initiation.

This hypothesis tests the production function of critical mass. For activities to take place, the curve should be accelerating. As more people join or show interest, the more likely an activity will take place. In terms of the study, the more interested people shown should increase the likelihood a participant would agree to organize an activity. If the critical mass curve were decelerating, then participants would be less likely to initiate collective action.

If the tendency of participants is to not initiate collective action, then there is a chance that free riding or social loafing is occurring. Social loafing occurs when someone in a group does not contribute as much as the others due to the thought that others will contribute enough for that individual. An example is a school group where 4 members put in all their effort on a project, while the fifth member does not contribute.

This research is studying what predicts participants' willingness to initiate

collective action. To support this hypothesis, seeing others (more than the minimum needed for an activity) will be positively associated with initiating collective action. The dichotomous dependent variable for the model was whether the participant agreed to organize a new activity.

9.3 Method

9.3.1 Survey Creation method

The original study design went through 20 iterations to develop the proper hypotheses and conditions. Once the survey design and conditions were satisfactory, the survey was distributed to three classes of undergraduate students (consisting of 15-20 students each) to test the understanding of questions and the length of the survey. The survey was then distributed to 50 participants using Amazon Turk (the method used for the full launch of the survey) to test responses, length of survey, and a final quality assurance test of the survey and answer database. After three iterations of 50 participants each on Mechanical Turk, the study was launched to 2000 participants. Participants were offered \$1 to fill out the survey. Participants needed to be between ages 18 and 35, speak fluent English, live in the United States, and be U.S. citizens. Age was restricted for two reasons, first participants would more closely relate to the previous studies, and second millennials are more likely to use the Internet and social apps than older generations [145]. Participants were told that if they did not follow the instructions for their activity, they would not be paid (this was important, as we gave them several examples of types of activities we were looking for, along with specifications of the location of their activity).

9.3.2 Survey Method and Measures of Variables

First, participants were asked for basic demographic information: age, gender, type of phone, level of education, and current school and employment status. They were then given several examples of activities and locations the survey was looking for (see Figure 9.2). Participants listed a social activity they would be interested in doing, a location for the activity, and selected a verb associated with the activity (e.g., play, study, attend) from a dropdown menu. Participants were also asked the minimum, ideal, and maximum number of individuals needed for the activity to take place. This information was used to fill the prototype image at the end of the survey. Next, participants answered questions about the activity they listed, similarly to the previous studies, regarding how often they participated in and organized activities for that interest.



Figure 9.2 Activity examples given to participants.

Finally, participants viewed the prototype UI, and were given the scenario that they used a social app to find activities based on their interest nearby. The prototype UI was their search results for local activities related to their interest. Each participant was randomly assigned a condition, where they saw a certain number of people in “Interested people” section (see Table 9.1). For example, if the first participant said they needed a minimum of 5 participants, and were placed in the minimum condition, they saw 5 interested participants. If the participant was placed in the above maximum condition, and their maximum participants was 10, they would view 15 (1.5 times their max) people in the “Interested people” section. Depending on their condition, they also saw content in the Brainstorming and Activities portion of the screen. These variables created 25 conditions (see Table 9.1).

Participants first took a moment to look over the UI before moving to the next task. For the final questions, a single feature was highlighted, while the rest of the screen was darkened; the question was placed alongside the feature to make it obvious which feature the question related to. For each part of the screen, participants were asked if they would want to be notified of the feature being used by someone and if they would use the feature themselves.

Table 9.1 Potential Screen Conditions

Condition	People (<i>N</i>)	Brainstorming (<i>C</i>) (0 = not shown, 1 = shown)	Activities (<i>A</i>) (0 = not shown, 1 = shown)
01	No people section displayed	0	0
02		1	0
03		0	1
04		1	1
05	1	0	0
06	<i>N_under</i> (Minimum – 1) (Must be >2)	0	0
07		1	0
08		0	1
09		1	1
10	<i>N_minimum</i>	0	0
11		1	0
12		0	1
13		1	1
14	<i>N_ideal</i>	0	0
15		1	0
16		0	1
17		1	1
18	<i>N_max</i>	0	0
19		1	0
20		0	1
21		1	1
22	<i>N_over</i> (Maximum $\times 1.5$)	0	0
23		1	0
24		0	1
25		1	1

9.3.3 Questions Regarding the UI

Once participants viewed the UI, they were asked yes or no questions regarding whether they would want to be notified of activity in one of the UI sections, or if they were willing to act upon that part of the UI. Participants' experience can be seen below.

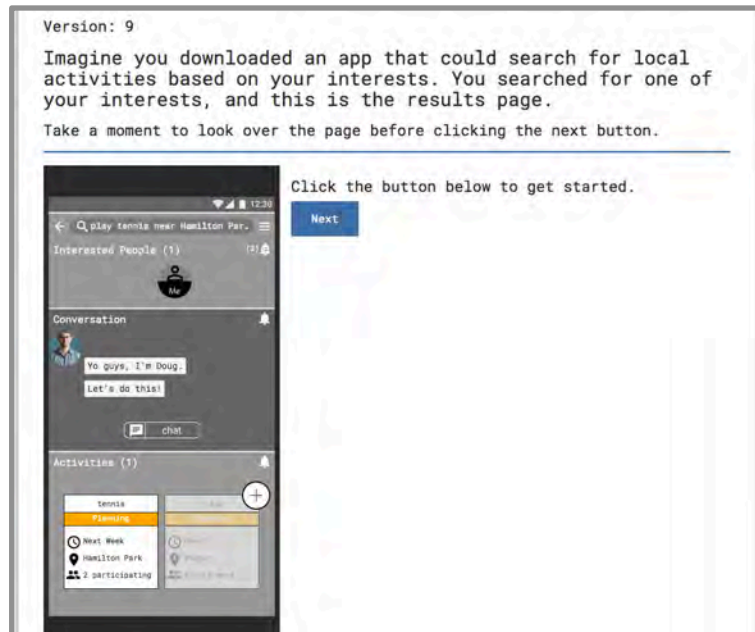


Figure 9.3 Scenario given to participants.

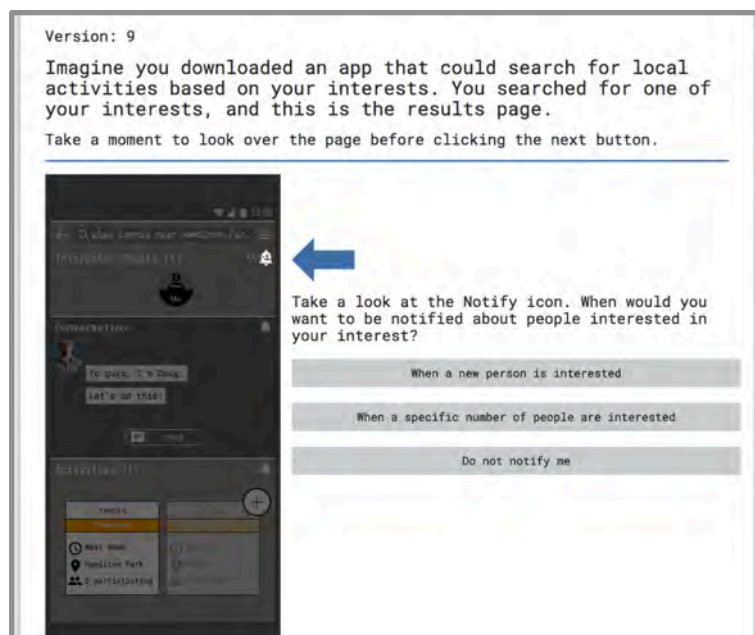


Figure 9.4 Notify icon usage.

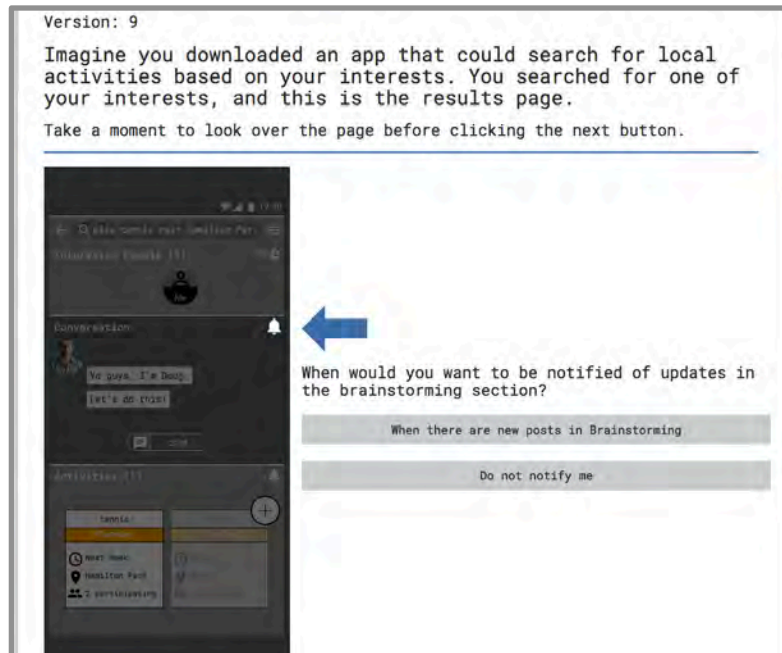


Figure 9.5 Notification of brainstorming activity.

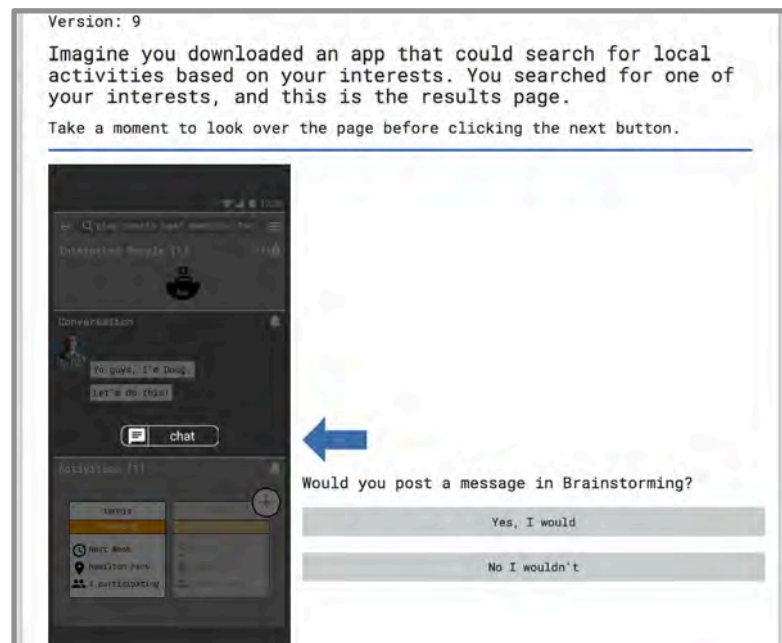


Figure 9.6 Post a message to brainstorming.

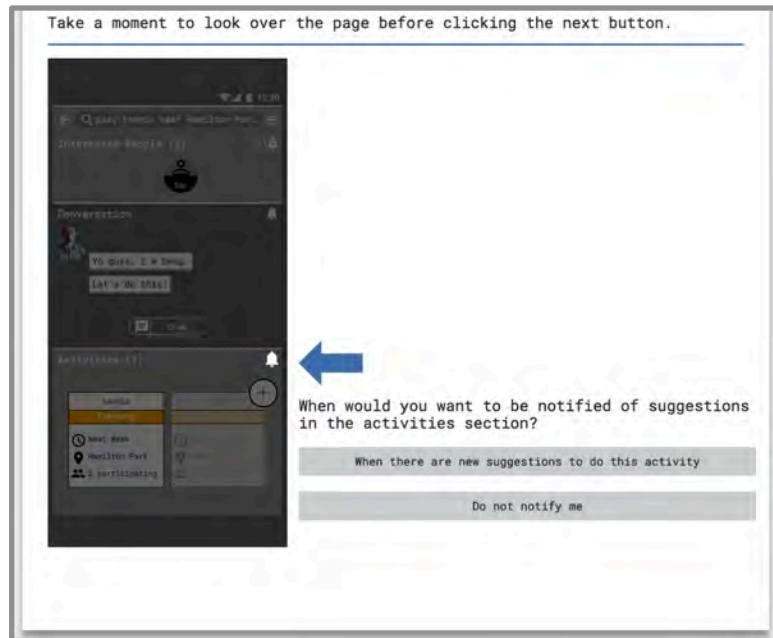


Figure 9.7 Notification of activity suggestions.

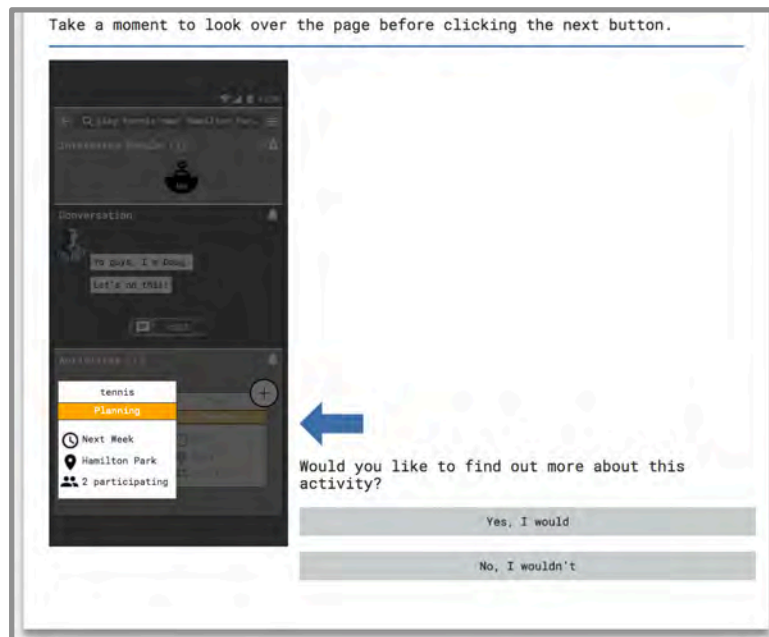


Figure 9.8 Found out more about activity.

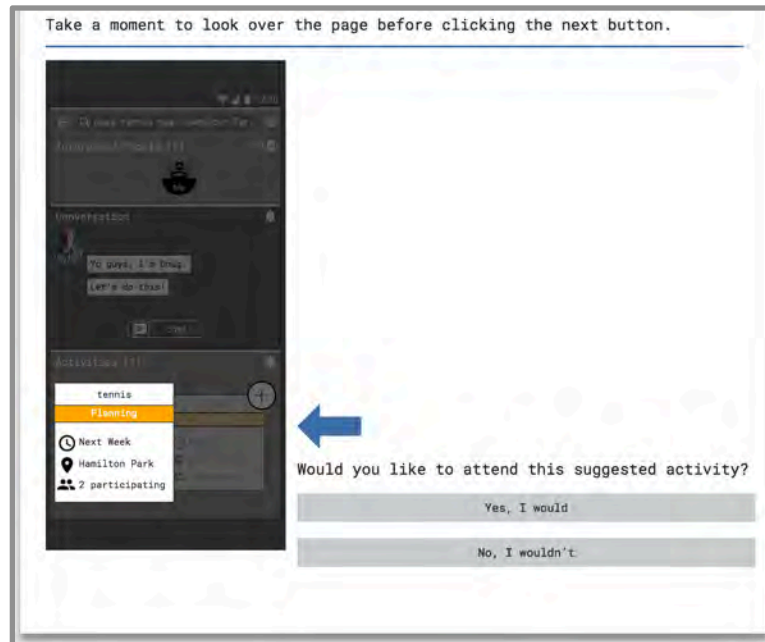


Figure 9.9 Attend activity.

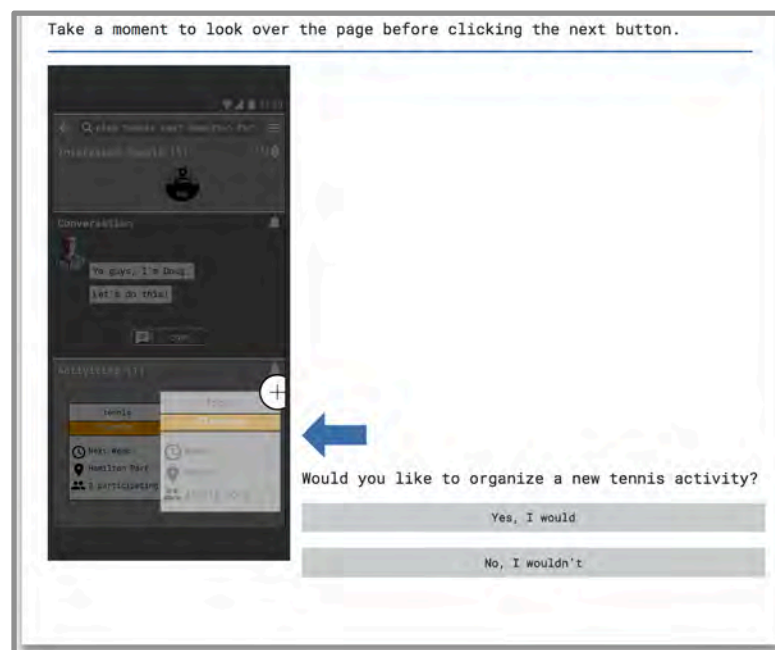


Figure 9.10 Organize activity.

9.4 Participants, Data Collection, and Analysis

The survey gathered feedback from 2000 respondents. The data was combed for inconsistencies. Activities that were not specific enough or were not group activities (e.g., reading a book, going to a concert), and locations that were not specific (my home, the library) or too far to be a local event (e.g. France, since these were US citizens) were removed. Those who were not at all interested in their interest or meeting others were removed. Those with minimum participants needed under 2, maximum participants over 35, minimum was greater than ideal, or ideal was greater than maximum were removed. The range of participants was kept between 2 and 35 because these were considered manageable group sizes to organize. Once the data was combed, 827 respondents were left.

9.5 Results

Participants were between the ages of 18 and 33. 40% of respondents were male, 57.2% were female. 48% had an iPhone, 52% had an Android phone, and 3 owned a Windows phone. Education was a mix, with 51% of participants reporting at least a bachelor's degree. Thirty-three percent of respondents were in school (part- or full-time), and 81% worked part- or full-time.

Table 9.2 Number of Participants in Each Condition

Condition	N	%
1	41	5
2	32	3.9
3	37	4.5
4	33	4
5	32	3.9
6	26	3.1
7	25	3
8	28	3.4
9	29	3.5
10	36	4.4
11	34	4.1
12	37	4.5
13	39	4.7
14	32	3.9
15	33	4
16	31	3.7
17	25	3
18	35	4.2
19	32	3.9
20	43	5.2
21	31	3.7
22	37	4.5
23	37	4.5
24	25	3
25	37	4.5
Total	827	100

Table 9.3 Participant Demographics

	N	%
Female	473	57.2
Male	354	42.8
Total	827	100

Age

Age	N	%
18-22	115	14.0
23-27	287	34.7
28-33	425	51.4
Total	827	100

Level of education

	Frequency	Percent
Associate	94	11.4
Bachelor	330	39.9
Doctorate	15	1.8
High School	67	8.1
Master	81	9.8
Some College	220	26.6
Some high school	3	0.4
Vocational	16	1.9
Total	827	100

Table 9.4 The Average Min, Ideal, and Max Number of People Participants Said They Needed for Their Activity.

	Mean	Std. Deviation
Minimum Participants	4.54	5.274
Ideal Participants	8.65	9.486
Maximum Participants	15.45	39.507
Total N	827	

First, to answer *RQ 1: what is the perceived likelihood of use of the four features presented, and what are the design implications of this?* We take a look at the number of participants who agreed to use or be notified of each feature. The next several tables show the responses of participants to each of the features. They were asked whether they would use the feature or want to be notified if others who shared their interest used the feature. Non-organizers were those who said they rarely or never organized an activity for their interest.

Table 9.5 Would You Want to be Notified When Others are Interested?

All participants			Non-organizers		
	N	%		N	%
Do not notify me	59	8.7	Do not notify me	25	9.4
When a new person is interested	465	68.3	When a new person is interested	177	66.3
When a specific # of new people are interested	157	23.1	When a specific # of new people are interested	65	24.3
Total	681	100.0	Total	267	100.0

Table 9.6 Would You Want to be Updated When There are Updates to Brainstorming?

All participants			Non-organizers		
	N	%		N	%
No	177	21.4	No	71	22.2
Yes	650	78.6	Yes	249	77.8
Total	827	100.0	Total	320	100.0

Table 9.7 Would You Want to be Notified of Activity Suggestions?

All participants			Non-organizers		
	N	%		N	%
No	132	16.0	No	55	17.2
Yes	695	84.0	Yes	265	82.8
Total	827	100.0	Total	320	100.0

Table 9.8 Would You Post to Brainstorming?

All participants		
	N	%
No	149	18.0
Yes	678	82.0
Total	827	100.0

Non-organizers		
	N	%
No	59	18.4
Yes	261	81.6
Total	320	100.0

Table 9.9 Would You Want to Learn More About This Activity?

All participants		
	N	%
No	43	10.9
Yes	352	89.1
Total	395	100.0

Non-organizers		
	N	%
No	11	7.4
Yes	137	92.6
Total	148	100.0

Table 9.10 Would You Attend This Activity?

All participants		
	N	%
No	26	6.6
Yes	369	93.4
Total	395	100.0

Non-organizers		
	N	%
No	7	4.7
Yes	141	95.3
Total	148	100.0

Table 9.11 Would You Organize an Activity?

All participants		
	N	%
No	273	33.0
Yes	554	67.0
Total	827	100.0

Non-organizers		
	N	%
No	146	45.6
Yes	174	54.4
Total	320	100.0

There was a much higher percentage of participants willing to be notified or use any feature other than organize. There is an especially stark contrast between those who are willing to participate (93.4%) and those who are willing to organize (67%), which shows that there are challenges that need to be overcome for individuals to step forward in the coalescing process.

9.5.1 Social Facilitation

RQ2a asked what percentage of people initiate collective action using the research artifact, and RQ2b asked the same question about people that did not have a history of frequently organizing instances of their respective activity in the past. To answer these RQs we examined the percentage of subjects that agreed to create a new instance of their respective activity, and further broke down the pool of subjects by their history of organizing the respective activity in the past (see Table 9.12).

Table 9.12 Percentages of Subjects that Agreed to Organize an Activity, Delineated by Organizing History

Organizing History	% of participants who would organize	N of participants who would organize	Total N who chose the answer
Never	51.3%	101	197
Rarely	59.3%	73	123
Occasionally	65.9%	164	249
Often/Always	83.7%	216	258
All	67%	554	827

9.5.2 Modeling critical mass as a threshold

Modeling the likelihood participants would organize an activity after looking at the UI tested the initiation of collective action (Figure 9.10). H1 stated: *awareness of a minimum number of people also interested in the respective activity will be positively associated with collective action initiation*. The explanatory variable of interest (Interested_Seen) was a dichotomous variable regarding whether a subject did or did not see at least the minimum number of people needed for their activity in the “Interested People” section.

Logistic regression was chosen for all models because the dependent variable was dichotomous, as participants chose “yes” or “no” for their answer. The independent variables to test against the dependent were nominal, ordinal, or interval-level variables. The goal of logistic regression is to find the best fitting model to describe the relationship between the dichotomous characteristic of interest (dependent variable = response or outcome variable) and a set of independent (predictor or explanatory) variables. Logistic regression generates the coefficients (and its standard errors and significance levels) of a formula to predict a logit transformation of the probability of presence of the characteristic of interest. At each step in backward elimination, a variable is subtracted to determine if the model becomes more significant. The final model includes all variables that are significant and relate to the dependent variable.

The final model for H1 (Table 9.13) was statistically significant, $\chi^2(8) = 78.066, p < .001$. The model explained 12.5% (Nagelkerke R^2) of the variance in decisions to organize an activity and correctly classified 68% of cases. However, the dichotomous variable (Interested_Seen) regarding a subject seeing at least the minimum number of people needed for the respective activity in the “Interested People” section was not present in the final model, meaning that H1 was not supported. Seeing the minimum needed amount of people did not influence participants to organize an activity and initiate collective action. This model did not fit the model of critical mass as a threshold.

Table 9.13 Final Regression Model for H1

PREDICTORS	B	Wald	p	Exp(B)
Gender (male)	0.381	5.684	0.017	1.464
Level of interest (extremely)	0.359	5.006	0.025	1.432
Organizer history (never)	-	48.229	0	-
Rarely	0.286	1.417	0.234	1.331
Occasionally	0.57	7.77	0.005	1.767
Often/always	1.53	45.144	0	4.617
# people one already knows	-	6.592	0.086	-
Constant	-0.166	0.225	0.541	0.462

Table 9.14 Omnibus Tests of Model Coefficients

	Chi-square	d.f.	Sig.
Step	-1.425	1	.233
Block	78.066	8	.000
Model	78.066	8	.000

Table 9.15 Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
970.993 ^b	.090	.125

9.5.3 The effects of social facilitation on collective action

The impact of social facilitation on subjects' likelihood to organize an activity was explored through logistic regression modeling H2: *The greater the number of people in the "Interested People" section, and the more often one has organized activities for the respective interest in the past, the more likely one will be to initiate collective action.*

The explanatory independent variables explored in this modeling were:

- 1) a dichotomous variable for whether person (other than oneself) was displayed in the “Interested People” section (test of mere presence);
- 2) the number of interested people displayed in the “Interested People” section (test of size of audience);
- 3) organizer history (what subjects have done in the past; *a partial test of social facilitation*); and
- 4) an interaction variable for organizer history and number of people displayed in the “Interested People” section.

The final model included gender, level of interest in the activity, organizer history, and the continuous variable for the number of interested people displayed in the “Interested People” section (see Table 9.13). The model was statistically significant, $\chi^2(6) = 85.068, p < .001$. The model explained 13.6% (Nagelkerke R^2) of the variance in decisions to organize an activity and correctly classified 68.6% of cases. The model shows that males were 1.409 times more likely to initiate collective action than females, and subjects who were “extremely” interested in their activity were 1.402 times more likely to initiate collective action than those that were “very” interested in their activity (dichotomous variable).

Two of the explanatory variables were predictive of initiating collective action. First, when the number of interested people shown in the “Interested People” section was raised by one unit, subjects were 1.023 times more likely to organize an activity. Second, compared to subjects that have never organized their activity, those that occasionally

organized the activity were 1.939 times more likely to initiate collective action and those that often/always organized the activity were 5.259 times more likely to initiate collective action.

This model potentially represents the “strong performance from a simple task” for those who have a history of organizing. Organizers were aroused by the potential for an activity due to higher numbers of people available. What this model does not represent is weak performance from a difficult task with high arousal. To represent this, there should have been a negative skew for those who rarely/never organize, upon seeing more than enough people for an activity to happen. While this model supports H2, the degree to which this model fits social facilitation and the Yerkes-Dodson law is not clear.

Table 9.16 Final Regression Model for H2

PREDICTORS	B	Wald	p	Exp(B)
Gender (male)	0.343	4.598	0.032	1.409
Level of interest (extremely)	0.337	4.431	0.035	1.401
Organizer history (never)		56.158	0.000	
Rarely	0.286	2.566	0.109	1.465
Occasionally	0.662	10.858	0.001	1.939
Often/always	1.66	53.762	0.000	5.259
# of “Interested People”	0.023	8.531	0.003	1.023
Constant	-0.166	0.541	0.462	0.847

Table 9.17 Omnibus Tests of Model Coefficients

		Chi-square	d.f.	Sig.
	Step	-5.317	3	.150
	Block	85.068	6	.000
	Model	85.068	6	.000

Table 9.18 Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
963.990a	.098	.136

9.5.4 Critical Mass as a Production Function

H3 conceptualized critical mass as a production function—the probability of action based on awareness of other people and their contributions, in relation to the number of people needed for an activity. H3 stated: *Awareness of other people and their contributions, in relation to the number of people needed for an activity, will be positively associated with IT artifact collective action initiation.* In this case we filtered out subjects that did not see the “Interested People” section in their search results.

The explanatory variables of interest were: 1) “Number of people needed in relation to number of people shown”—a categorical variable regarding if the number of interested people seen in the “Interested People” section was (i) below the minimum needed, (ii) within and including the minimum and maximum number of people needed, or (iii) above the maximum number that can participate; 2) number of interested people shown in the “Interested People” section; 3) a dichotomous variable for the presence of a

post in the “Brainstorming” section (a contribution by another person); 4) a dichotomous variable for the presence of an activity in-planning in the “Activities” section (a contribution by another person), and 4) the interaction between “number of people needed in relation to number of people shown” and the number of people shown in the “Interested People” section.

The final model (Table 9.22) was statistically significant, $\chi^2(9) = 93.559, p < .001$. The model explained 17.8% (Nagelkerke R^2) of the variance in decisions to organize an activity and correctly classified 70.2% of cases. This was the strongest model of collective action initiation through the research artifact.

The explanatory “number of interested people” variable was present in the final model. Relative to subjects that saw less than the minimum number of people needed for their activity in the “Interested People” section, subjects that saw more than the maximum number of people that could participate were .457 times less likely to organize an activity. Viewing a number between the minimum and maximum “Interested People” needed was not significant. Other explanatory variables in the final model included number of interested people and the dichotomous variable for the presence of a post in the “Brainstorming” section (a contribution by another person). This model supports H3.

Table 9.19 Final Regression Model for H3

PREDICTORS	B	Wald	p	Exp(B)
Gender (male)	0.353	3.362	0.067	0.722
Level of interest (extremely)	0.313	3.089	0.079	1.368
Organizer history (never)	-	54.62	0.000	-
Rarely	0.388	2.165	0.141	1.475
Occasionally	0.763	11.661	0.001	2.144
Often/always	1.912	52.22	0.000	6.765
# of “Interested People”	0.04	12.463	0.000	1.04
# people needed in relation to # interested people shown (less than minimum)	-	9.309	0.01	-
Between min and max	-0.048	0.044	0.834	0.953
More than max	-0.783	6.216	0.013	0.457
Presence of post in “Brainstorming”	-3.16	3.196	0.074	0.729
Constant	-0.367	2.021	0.155	0.693

Table 9.20 Omnibus Tests of Model Coefficients

	Chi-square	d.f.	Sig.
Step	-2.311	1	.128
Block	93.559	9	.000
Model	93.559	9	.000

Table 9.21: Model Summary

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
774.393 ^b	.128	.178

9.6 Limitations

One limitation to this study was that only participants who were “very” or “extremely” interested in their interest were studied, compared to those who have little to no interest. There was no data to compare across all feelings toward interests. High interest participants were chosen because they would most likely to want to participate in an activity if they found others. Those individuals would have a higher stake in their interest. Previous research in this dissertation discovered that a large number of individuals wanted to find activities related to their interest, but they were not the type to lead the coalescing process. This meant that they missed out on their opportunities. This study focused on learning if lightweight coalescing features could persuade those who were highly interested in activities to coalesce. Results from Study 1 showed that participants would *participate* in activities that were already formed to find friendship, but would not *organize* activities because they did not know others. While this study was limited in the scope of who was observed, the focus was on those who would be more interested in an activity because they would then be more likely to do the activity.

Another limitation is the realism of the study. Participants were given a scenario and a prototype UI, which is different than using a full working app every day. We can question whether these participants would have suggested an activity in an everyday

circumstance. There was an overwhelming positive response to each of the features, especially from non-organizers, as well. While this was more of a remote lab setting, the data is still significant. Participants were not forced to input their answers, they gave their genuine response. While this was not a real working app, the data is still a first positive step with proof that people would be willing to organize with others. This study can be followed up with a working app, although that will take time to design and build all elements.

9.7 Conclusions

This research set out to understand if displaying shared community interest and lightweight coalescing options would cause non-leaders to take on the role of organizing. This study tested whether showing others who shared interest in an activity would increase the likelihood a person (especially a non-organizer) would assist in coalescing others. As stated earlier, collective action needs two factors, a critical mass of actors and an agreed upon goal. In the case of the prototype, the individuals listed in the “interested people” section all have the same goal, to meet others with a specific interest. When there are more than enough people to start an activity, collective action could be achieved. According to the research, this is indeed the case. Displaying shared community interest will increase the likelihood an individual will join the coalescing process. Based on the data, 51% of subjects that had never organized their respective activity in the past were willing to step forward and initiate collective action, by making a suggestion using the research prototype. Also, this research found subjects who were provided with the

awareness of other individuals who share their activity interest facilitated those subjects to step forward to initiate collective action.

Level of Interest was a major predictor of feature usage. Level of Interest was significantly correlated with notification of interested people and brainstorming activity, we well as posting to brainstorming and learning more about activity suggestions. Those with extreme levels of interest in an activity are more likely to organize an event, or use the lightweight coalescing features. This parallels Hogg's literature on prototypical leaders coming forward to lead. This also coincides with findings in Study 2, where organizers were highly motivated by their interest to start a group, and turned to Meetup because of its ease of finding other people compared to traditional word-of-mouth advertising. One limitation to this finding, as mentioned above, is that only participants with high and extreme levels of interest were included in this study. The full spectrum of interest level needs to be examined in further studies.

The features that were presented (Interested People, Brainstorming, and Activities) were well received by participants. There was a large percentage (over 80%) of participants who would agree to use the provided features on an app when searching for others for their interest. Current EBSNs lead users to a dead end when they cannot find groups or activities for their interest. Meetup has started to include a message, "Start a group, over X people interested." This is a great push in the right direction, but users still have to surmount the hurdle of spending money to create a group in the hopes that those individuals will come. By adding the suggested lightweight coalescing features, EBSN users will take on the leadership role without having to fully commit their time

and energy.

While the findings indicate participants were willing to create suggestions for their activity, one element that could not be fully studied was suggestions created without commitment. One possible outcome from this system could be suggestions for activities where the user does not fully intend on attending or participating in an activity, which is likened to the RSVP issue in Meetup. Having too many users suggest activities but not attending reduces the critical mass needed for those activities to happen. This would be another area to study as this system becomes a usable prototype.

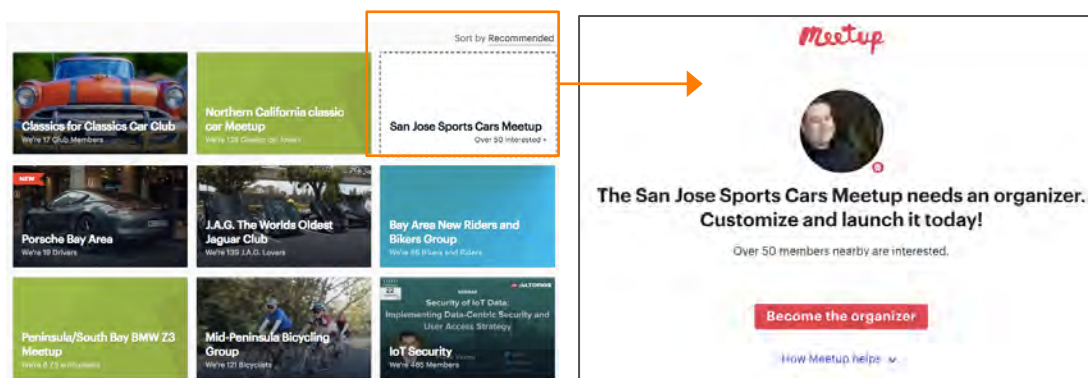


Figure 9.11 Meetup entices users to start a new group with the number of interested people.

9.7.1 Critical mass and initiating collective action

This study tested notions of initiating collective action – including critical mass as a threshold, critical mass as a production function, and social facilitation. The data did not fit the model of critical mass as a threshold when initiating collective action. Participants who saw at least the minimum number needed for their activity were not persuaded to

organize an activity. While there was evidence of critical mass as a production function, the data did not fit the typical model. When participants saw 1.5 times more than their maximum needed participants, participants were less likely to organize an event. The typical model shows exponential growth along a curve, rather than a slow-down at any point. In both of these cases, the data did not fit the typical models of finding critical mass for initiating collective action.

Social facilitation is typically studied in terms of an individual performing an action (e.g., shooting hoops, tying shoes), where the action is labeled 'easy' or 'difficult'. There is contention with this study, where participants are asked whether they *have the intention to* perform an action. The interested people are not necessarily observing the participant. Notwithstanding, modeling the data for intention to perform as social facilitation, the data does not fit the typical model here either. The greater the number of interested people shown, the more likely self-identified organizers (those who often organize an activity for their interest) would organize an activity in the UI. This can be seen as the "easy task" for someone who has experience in organizing. Seeing more people raises their arousal and chance they will organize. The data did not fit the typical difficult task model, as those who rarely or never organize did not have a negative effect on organizing in the UI.

The observed data from this study did not fit the typical models of collective action. A new model for collective action initiation must be designed and tested that fits interest-based group activity coalescing. This is a first step in that definition.

9.7.2 Stable Market Theory and Empowerment Theory

In the end, our prediction of creating an “activity market” based on Stable Market Theory positively attributed to the likelihood participants would participate in an activity. Of 342 participants who had not participated in an activity for their interest in the last month, 79.2% would post to brainstorming and 60.2% would organize an activity. Creating an activity market with the ability to leave messages for others in order to show interest has a positive effect on the number of activities within the community. People want to be notified when there are others who share an interest, and lightweight coalescing features enable those who would not normally organize to help coalesce with others.

This also brings into account Empowerment Theory. The lightweight coalescing features empowered participants by giving them the ability to take small steps toward organizing an activity. Those who would normally not be leaders wanted to use these features to coalesce with others. Giving a community the tools it needs to raise awareness of others who share an interest empowers all members of the community to step forward and coalesce with others. This can increase the number of activities happening in a community (e.g., on campus, an urban environment, or a suburban area) and increase social capital.

In conclusion, this study set out to explore one solution to the wicked problem of interest-based group coalescing. Offering lightweight coalescing tools does overcome some of the challenges to leadership and increases the chance non-leaders will coalesce with others. We can reduce the lack of awareness of others by notifying participants of other people who share their interest when they search for activities. By giving

lightweight options to participants when they search for specific interest in certain activities, there is control of the amount of information to each person, reducing information overload. The use of lightweight coalescing features proved that without leadership, participants are willing to contribute to collective action for their interest. Finally, these lightweight coalescing features help the needs of the community by bringing the attention of these activities to those who are willing to participate in them.

CHAPTER 10

DISCUSSION AND CONCLUSION

Previous research explained group formation in terms of role creation or group identity formation after the group of individuals was already formed. Leadership was assigned through roles or came from the outside (e.g., school project and employee assigned groups). Emergent leadership in groups (where an individual comes into the leader role rather than being chosen/elected) was developed from prototypical members of the group, those who exemplified the ideals of others. Often, groups had a single leader who was a certain type of person, one who had the willingness to step forward into the leader position.

Alternatively, psychologists developed Empowerment Theory, which suggested giving the necessary tools for leadership to those within a community to enable groups of individuals to make executive decisions together in order to obtain a goal. Empowered leadership is not vertical or central, but shared among members. One advantage to empowered leadership is that the responsibility becomes dispersed between several people, instead of a single person.

Current online tools for group coalescing (Facebook Groups, WhatsApp, and EBSNs such as Meetup) tend to use a central leadership concept – where one person must overcome challenges to form a group. Groups do not form through a committee or emergence of several individuals/strangers who share an interest.

There is currently a gap in knowledge in the emergence of groups and how they

form from a single person into a group. From the literature, we can infer that a critical mass of individuals is needed early in order for a group to successfully form. Since most literature focuses on roles and identities after a group has formed, this research set out to understand, “How do groups emerge from one individual, to critical mass, to a successfully attended activity?” It is also not well-understood how current technology can best support emergent groups, so this research set out to give design recommendations that support early group coalescing, “How can technology drive the success of face-to-face interest-based group activity coalescing?”

Four studies were run to gather information on how groups are formed and how technology can assist people to coalesce for interest-based group activities. They also looked at the behaviors of early leadership and what issues arose in emergent activity groups. The studies in this dissertation gathered interest-based group formation tactics in order to design features for future coalescing applications. These features were designed with shared leadership in mind, to enable the formation of groups that may never exist otherwise, because the majority of individuals do not overcome the group formation challenges.

10.1 Study Summaries

10.1.1 Study One

The first study involved interviewing students around an urban university campus in locations where people spend their free time between classes or participate in leisure activities with others. The purpose of this study was to understand the current social

climate, what activities students participate in, how they find activities, and what challenges they face in finding others. Participants were selected from a college campus because the campus acts as a community, where people enter and leave on a daily basis, and not everyone knows each other. Many inhabitants of the college campus are looking for activities to participate in, as well as build their social capital. Sixty interviews were audio recorded, and then transcribed. The transcriptions were coded, codes were categorized, and themes were identified from the codes. The transcripts were explored again, and quotes were extracted to support each theme.

The results indicated that students had difficulty finding others who shared their interest. First, they did not know who shared their interests. Second, current communication and advertisement of activities were haphazard ordeals, where information overload reduced the likelihood students would find others who shared their interest. Leaders also had trouble organizing because it took a lot of time and effort to find others, and they also suffered from the communication issue mentioned above. This study helped to focus the research on leaders and group founders, since they were necessary for groups to form.

10.1.2 Study Two

The second study involved investigating EBSNs such as Meetup as a viable solution to the communication issues for emergent groups in urban spaces. The goal of this study was to understand why organizers choose EBSNs for their activity groups, as well as the high- and low-lights of using these systems early in the coalescing process. Unlike a college campus, Meetup catalogues every user's interests, and when a new group is

formed and matches keywords between the group and user, advertises that new group to the user. At first glance, this would seem to solve communication issues. This study also further helped to understand the current state of technology and its role in coalescing emergent groups.

This study involved several steps: 1) searching for fledgling Meetup groups within the NY/NJ area using Meetup's website; 2) asking the organizer of each group through the Meetup private message system to fill out a survey; 3) recording all information from contacted groups, including founding date, number of members, number of meetups, etc; and 4) following-up successful group organizers (those that existed for more than six months) for interviews.

In total, 763 groups were contacted, and 100 survey respondents were recorded. After one month, all 763 groups were reviewed to see if they still existed, how many members they had, and how many meetups had taken place. Meetups are nicknames for organized activities. After six months, the 100 respondent groups were manually checked again. The survey data was evaluated through statistical testing. The interviews were transcribed, themes were flagged, and quotes that related to the hypotheses were saved.

The results indicated that most (around 75%) organizers used Meetup because they did not know others who shared their interest locally. Meetup's advertising features made it easier to gain the critical mass they needed, especially since Meetup is full of people who are willing to participate in activities. One interesting finding was the high turnover rate, where within one month, 9% of the 100 respondent groups had closed, but after six months, 49% of the 100 respondent groups had closed. Meetup, while it has a

thriving community, is still a high-risk gamble for organizers due to the amount of effort needed to keep groups going, often from a single person.

Another important result from this survey was the correlation between ideal attendance and ideal participation at the first meetup, and long-term success of the activity group. While EBSNs help leaders in finding the right people to join a group (as long as those people have joined the EBSN), the challenges to starting a group still exist. Non-leaders do not want to invest time and effort into creating a group when they do not know if there are others who are willing to participate.

10.1.3 Study Three

With knowledge about organizer behavior in EBSNs, organizers in the urban campus community were investigated to better understand their behaviors in coalescing. For the third study, the entire student body of the same urban university from Study 1 was contacted *via* school email and asked to take a survey. Respondents reported their top three interests, and if they organized activities for those interests, they answered questions about their first time organizing on campus. The questions were similar to questions from the second study, in order to later compare these two segments.

The data was cleaned of incomplete responses. Of the 511 respondents who completed the full survey, 108 organized activities on campus for at least one of their top three interests. Hypotheses were tested through thorough statistical analysis using SPSS.

Similarly to the second study, ideal attendance and participation led to organizers continuing to create activities for their interest. Similarly to Meetup organizers, those who start groups often do so to seek out others, which is a burden of time and effort. This

study also evaluated activity participants, and confirmed with significance that information overload affected their ability to find activities on campus, giving more support to the conclusion of the first study. It was also found that knowing others before organizing did not lead to greater success, further supporting a lack of critical mass within the activity coordination process.

10.1.4 Study Four

The study design and prototype of a mobile activity coalescing system were driven by the previous literature and results from the first three studies. A team of undergraduate and graduate students spent one year iteratively designing the UI. From previous work there was an understanding that individuals face many challenges to coordinating, one being the effort needed to start a group and another being the need to know others are willing to attend and participate in an activity.

The idea behind the prototype was that an individual would search for the interest (e.g., volleyball), and the results page would display four features: 1) Interested people: A list of avatars of individuals who share that interest; 2) Brainstorming: a public message from an interested participant who wants to discuss the interest; 3) Activities: the beginning stages of organizing an activity; and 4) Suggest: a button to suggest an activity.

This study was distributed through Amazon Mechanical Turk to US citizens. Participants first took a survey where they described their top interest, where they would want to do this interest, and how many people were needed (a minimum, maximum, and ideal number of participants). After completing the survey, participants were shown the prototype UI in one of 25 conditions (see Appendix E), which displayed a specific

number of avatars in the Interested People section, and either displayed content or no content in the other features. Participants were asked binary questions on whether they would use or want to be notified of activity for each of the features.

There were 2000 total responses, and 827 complete responses were used for analysis after removing incomplete responses. SPSS was used for statistical analyses. Logistic regression was the chosen statistical method because the dependent variable was dichotomous, as participants chose “yes” or “no” for their answer. The independent variables to test against the dependent were nominal, ordinal, or interval-level variables. Logistic regression is a statistical test that creates a model by testing the interactions between the dependent variable and the independent variables. Each variable was placed into the model and determined if it improved the significance of the model, until all variables were tested. The final model was used to test each hypothesis.

This study found that individuals who are normally not leaders were willing to use the provided features to coalesce with others. Showing that others shared participants’ interests also increased the likelihood that the features would be used. Non-leaders would be willing to step forward and help with the coalescing process with others who share their interest, rather than taking on the full responsibility of being an organizer. Developing these features in an EBSN may lead to more groups being successfully created because individuals who would normally not take the first step in creating a group due to challenges would be more willing to do so.

10.2 Overcoming Collective Action Initiation Challenges

One contribution of this research is understanding the challenges that deter organizers from initiating collective action. This next section will discuss each of the challenges and what was found through results of each study.

10.2.1 Not knowing the Shared Community Interest

In Study 1 and Study 3, students claimed they did not want to organize activities because they did not know others who shared their interest. Conversely, Meetup organizers in Study 2 were willing to create groups and organize activities without knowing others. They specifically used Meetup *because* they did not know others. In Study 4, participants who did not know others were also likely to start the organizing process. Why is there a discrepancy between those who don't use technology and those who do? Meetup suggests to potential organizers that it has a community of people who are willing to participate in interest-related activities, but this increases the likelihood someone who already organizes will start a group, not that non-organizers will start a group.

The difference in the final study was the ability to suggest activities and interact with people, rather than just knowing people are available. Being able to communicate with others and seeing that others were communicating empowered users, because they saw active interest. While the first three studies found that not knowing others were interested in an activity was a challenge, results from the fourth study showed that giving an interactive place for interest discussion overcomes the challenge to coalescing.

10.2.2 A single individual is responsible for organizing an activity

Both offline and online activity organization required a single individual to take the first step in initiating coalescing. Participants in Study 1 and Study 3 found it difficult to take the first step because of the time and effort needed to find others, especially when they did not know others. Findings from these studies suggested natural leaders were more likely to attempt the coalescing process, but after at least one failed attempt, they did not want to try again. After not finding others, they did not want to waste time or effort if they were unsure they could successfully recruit others.

Meetup organizers, while still required to be the sole creator of their group, were assisted by Meetup with recruitment. Members of Meetup's community are more likely to participate in an activity because users took the time to create a profile and add keywords, which is more positive effort to attending an activity than the general populace. Studies One and Three showed that it is difficult for an individual to take the first step in coalescing due to all the responsibility, but online systems reduce the effort by supporting organizers and completing tasks for them (e.g., recruiting others).

The results of Study 4 showed that participants were willing to use the lightweight coalescing tools and take the first step in coalescing with others. Study 4 was designed to test ways to overcome the challenge of sole organizers by allowing multiple people to be part of the coalescing process from the start. By splitting the coalescing work among several users, individual responsibility is reduced and accountability is increased. Accountability is increased because users are now part of the coalescing process; they have invested toward a larger goal. Implementing elements of empowerment and shared

leadership into a coalescing UI increased the likelihood participants would initiate collective action, which reduced the challenge of being the sole organizer.

Due to the prototype not being interactive and participants not actually creating activities with multiple people, we do not fully understand how efficient the system is in sharing organizer responsibilities. A follow-up study would be needed with a more fully functioning system in order to test how participants would respond to creating an activity, and if people would take the second, third, or fourth (etc.) step of adding information until an activity is fully planned.

10.2.3 The Amount of Time and Effort Needed to Organize

Results from Study 1 and Study 3 found that the amount of time, effort, and work required to organize an activity made it difficult for individuals to start the coalescing process. Part of this issue comes from not knowing others who share an interest, and the difficulty in finding those people in the general populace. Results from Study 2, especially the interviews, showed that EBSNs reduce the time and effort for initiating collective action by assisting organizers in finding others. Some participants from Study 2 felt that organizing still took up too much of their time, especially if they were a single organizer. Those organizers planned to recruit other organizers to help them in planning activities. While EBSNs reduce the initial coalescing effort for organizers, they are still inefficient and do not currently overcome the challenge of requiring too much effort to organize.

Study 4 tested the reduction of work by using the lightweight coalescing features – participants only needed to provide a small amount of information or simply agree to

start the coalescing process, without having to plan an entire activity themselves. The results showed that participants would overwhelmingly use these lightweight features, compared to taking sole responsibility to organize. This supports the idea that these features can increase the number of activities that happen, because individuals are willing to initiate collective action, rather than failing to do anything.

10.2.4 Information overload

In the first three studies, information overload of potential participants was a common problem for organizers. Study 1 interviewees mentioned seeing too many emails, Facebook posts, and posters to find what they are looking for. Study 3 survey results backed these results, and found a significant correlation between missing activities and information overload. Meetup users also faced a problem of information overload and received too many email advertisements (Figure 10.1). The Meetup emails often advertised groups that were not interesting to a user, and when seeing too many of these emails, users became overburdened and did not read any of the emails (information overload). In all three studies, the same issue prevented individuals from finding activities they may have been interested in, which led to the failure of those activities taking place.

Bruce Esrig	Design for Wellness slides - Your Organizer, Bruce Esrig, sent the following message to some members of UX / bDA Northern NJ	11:26 am
Meetup	New Meetup Group: Tech@NYU Product Design Days - Meetup New Meetup Group Tech@NYU Product Design Days Listed in: Usabil	8:18 am
Meetup	New Meetup Group: NYC Tabletop Game Designers - Meetup New Meetup Group NYC Tabletop Game Designers Listed in: Board Gam	Feb 9
Meetup	New Meetup Group: Android Netrunner NJ - Meetup New Meetup Group Android Netrunner NJ Listed in: Fun & Games Night, Strategy	Feb 9
Meetup	New Meetup Group: Underground Food Experiences NYC - Meetup New Meetup Group Underground Food Experiences NYC Listed in:	Feb 8
UX / bDA Northern NJ Me.	Tomorrow: Join 20 user experience professionals at "Real Life IA at World IA Day in NYC" - Meetup tomorrow Real Life IA at World I	Feb 8
Meetup	New Meetup Group: Zumba Tuesdays with Shayla - Meetup New Meetup Group Zumba Tuesdays with Shayla Listed in: Weight Loss,	Feb 8
Meetup	New Meetup Group: New York City Sociedad de Tapas - Meetup New Meetup Group New York City Sociedad de Tapas Listed in: Food	Feb 7
Meetup	New Meetup Group: Relay For Life of Manhattan: American Cancer Society Event - Meetup New Meetup Group Relay For Life of Mar	Feb 7
Meetup	New Meetup Group: Thirsty Mondays - Meetup New Meetup Group Thirsty Mondays Listed in: Dining Out, Meeting New People,	Feb 6
Meetup	New Meetup Group: Romantic Singles of NY - Meetup New Meetup Group Romantic Singles of NY Listed in: Meeting New People, Soc	Feb 6
Meetup	New Meetup Group: National Amateur Pool League NYC NAPL - Meetup New Meetup Group National Amateur Pool League NYC NAP	Feb 6
Meetup	New Meetup Group: Amazing Mommies in Westfield - Meetup New Meetup Group Amazing Mommias In Westfield Listed in: Couples M	Feb 5
Meetup	New Meetup Group: NO FREE WILL. MEETUP OF MANHATTAN, NEW YORK CITY - Meetup New Meetup Group NO FREE WILL. MEE	Feb 5
Shawn	[NY-NJ-Omnigraffle-users] The User Experience Design & Strategy Group official web page - Hello fellow group member, I wanted to	Feb 5
Meetup	New Meetup Group: Cheers! Cigars!...where everybody knows your name. - Meetup New Meetup Group Cheers! Cigars!...where ever	Feb 5
Meetup	New Meetup Group: Bayonne Buddies Battling Bulge - Meetup New Meetup Group Bayonne Buddies Battling Bulge Listed in: Weight L	Feb 4
Meetup	New Meetup Group: Hurricane Sandy Volunteer Effort, Staten Island Team - Meetup New Meetup Group Hurricane Sandy Volunteer E	Feb 4
Meetup	New Meetup Group: Autograph collecting - Meetup New Meetup Group Autograph collecting Listed in: Meeting New People, Social, Col	Feb 3
Meetup	New Meetup Group: The Tri states Couples Network - Meetup New Meetup Group The Tri states Couples Network Listed in: Couples M	Feb 3
UX / bDA Northern NJ Me.	Saturday: Join 19 user experience professionals at "Real Life IA at World IA Day in NYC" - Meetup Saturday Real Life IA at World IA	Feb 3
Meetup	New Meetup Group: "I Love Football" - Meetup New Meetup Group "I Love Football" Listed in: Dining Out, Meeting New People,	Feb 3
Meetup	New Meetup Group: EXCLUSIVE - Meetup New Meetup Group EXCLUSIVE Listed in: Meeting New People, Dance, Make New Friends, I	Feb 2
Meetup	New Meetup Group: "United Sports Fans" - Meetup New Meetup Group "United Sports Fans" Listed in: Dining Out, Meeting New Peopl	Feb 2
Meetup	New Meetup Group: Sweat Equity Shop - Meetup New Meetup Group Sweat Equity Shop Listed in: User Experience, Startup Business	Feb 2
Meetup	New Meetup Group: Best Live Music Theatrical Concerts in Manhattan - Meetup New Meetup Group Best Live Music Theatrical Conco	Feb 1
Meetup	New Meetup Group: NYSOM Xperience - Meetup New Meetup Group NYSOM Xperience Listed in: Meeting New People, Social, Fun & C	Jan 31
Meetup	New Meetup Group: Manhattan Fitness Fanatics - Meetup New Meetup Group Manhattan Fitness Fanatics Listed in: Outdoor Recreatio	Jan 31
Meetup	New Meetup Group: "Times Square Social Club" - Meetup New Meetup Group "Times Square Social Club" Listed in: Dining Out, Meetir	Jan 30
Meetup	New Meetup Group: Park Slope Photographers - Meetup New Meetup Group Park Slope Photographers Listed in: Photography Worksh	Jan 30
Meetup	New Meetup Group: The New Jersey Japanese Exchange - Meetup New Meetup Group The New Jersey Japanese Exchange Listed in:	Jan 30
Meetup	New Meetup Group: Mashfest - Meetup New Meetup Group Mashfest Listed in: Social, Fun & Games Night, Video Games, Fun Times,	Jan 30
Meetup	New Meetup Group: Young NYC couples - Meetup New Meetup Group Young NYC couples Listed in: Fun & Games Night, Couples Mee	Jan 28
Meetup	New Meetup Group: Kat's Social Singles - Meetup New Meetup Group Kat's Social Singles Listed in: Fun & Games Night, Singles, Datin	Jan 28

Figure 10.1 An overabundance of Meetup email advertisements.

Study 4 did not evaluate reducing information overload. Information overload occurs when activity *participants* receive too much information and miss an activity. The final study focused on persuading organizers, and not on the behaviors of participants. In order to gather the amount of information from the UI for the fourth study, the effects of information overload could not be covered. The amount of time required for each participant to complete the study also affected testing information overload. Having participants spend too much time would cause fatigue and less reliable results. Testing information overload with lightweight coalescing features could be done with a working prototype, to understand what amount of information should be sent to participants without causing information overload.

10.3 Event-based Social Networks

Another contribution of this work is the understanding of what an EBSN is. This section discusses EBSNs and what new findings were discovered through this research.

10.3.1 What is an EBSN?

An event-based social network (EBSN) is an online system used for organizing face-to-face activities with others. As an organizer (often a single person) creates a group or activity, the system advertises or recommends the activity to others. By systematically spreading an activity, there is a greater chance a critical mass will be found and the activity will take place. Websites like Meetup have their own community of users who sign up and expect recommendations for groups/activities they wish to participate in. Other EBSNs (e.g., Facebook Groups, Eventbrite) rely on individuals who express interest in an activity to repost/advertise the activity to SNSs (e.g., post they are going on their Facebook feed).

There is a contrast between different types of EBSNs. Meetup and Facebook Groups are both focused on building communities, where groups of people plan multiple activities. These types of EBSNs build upon social networks: participation in activities are a way for participants to create friendships with others. Often, organizers control who is in the group by monitoring those who RSVP and those who actually attend activities. Organizers from Study 2 wanted to make sure their groups were communities of people who came to activities rather than sat idly, to ensure group success.

EBSNs like Eventbrite focus more on single events, where tight-knit communities do not form. Each event is created separately, then shared using outside networks (e.g.,

Facebook) to advertise activities. These types of EBSNs are less concerned with building communities and increasing social networks, but rather as activities take place and people meet each other, there is a chance that people create friendships with each other.

EBSNs have a set of features that make it easier for organizers to create and manage activities, such as recruiting, communication, and managing groups. By having these tools in one system, it organizers have a better opportunity to create successful activities.

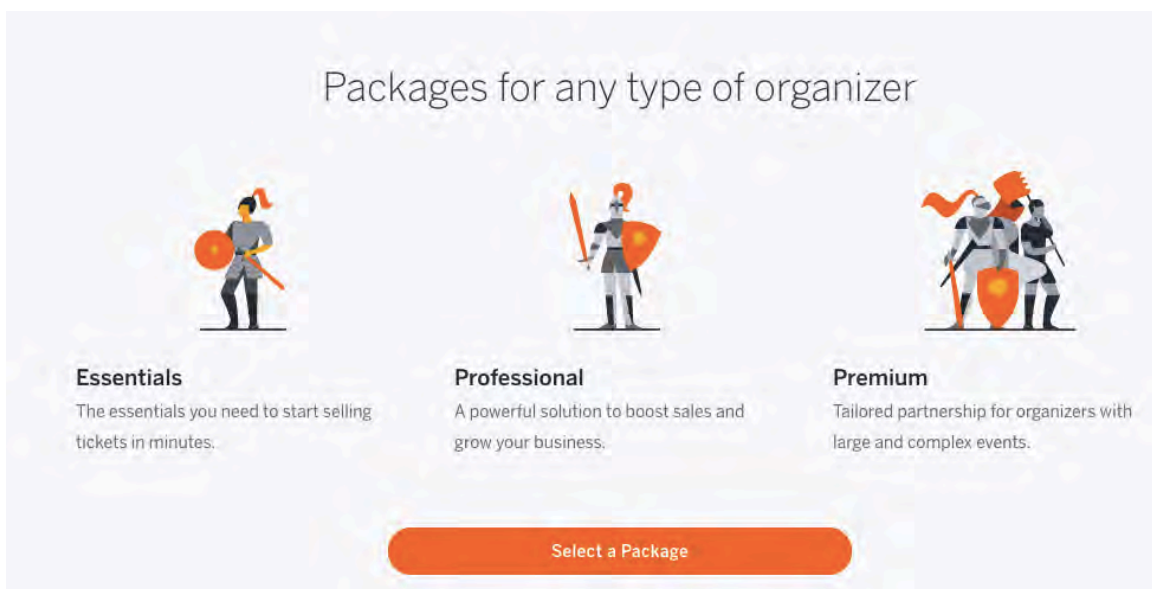


Figure 10.2 Eventbrite packages show a single organizer.

10.3.2 What Works

The results from Study 2 show that EBSNs help organizers create activities. Organizers

who do not know others in their social networks who share their interest turn to Meetup to find others. Often Meetup can replace physical advertisements (e.g., posters on walls, recruiting people face-to-face), with online advertising. This becomes faster and less effort for an organizer. EBSNs' group communication tools also make it easier to update potential participants about activities, including changes to the event. Having an RSVP tool helps organizers see if an activity has reached critical mass, and if it will take place. Larger groups use the RSVP tool to restrict attendance to create a community of people who attend activities and know each other. Organizers have been known to leave other online group tools (Yahoo Groups) in favor of Meetup, because Meetup has the tools necessary for an activity group that meets face-to-face, compared to a tool that is more focused on online interaction.

10.3.3 What does not work

Previous research stated that EBSNs were not efficient, and there needs to be better ways to recruit people for interest-based group activities. Those studies designed recommender systems without investigating why EBSNs were not efficient. Results from Study 2 also suggest that EBSNs are not efficient for activity coalescing. Roughly 50% of groups surveyed closed within one year of founding, which shows success is still difficult to achieve. The studies within this dissertation found that one of the major inefficiencies to group coalescing were the challenges to initiating collective action. As mentioned above, EBSNs do not indicate how much shared community interest there is before an organizer creates a group/activity, they depend on a single individual creating groups and activities, and there is a large amount of time and effort for organizers.

10.4 Conclusion

In conclusion, this research has contributed to knowledge of the trials and tribulations organizers go through in both online and offline communities in order to find others who share interests and are willing to participate in activities. Organizers often do not know others who share their interests, and are forced to advertise to find others. Local advertising is difficult and time consuming, where posting bulletins or sending out messages, emails, or other communications to others does not reach the intended audience. Due to information overload, those who would participate never see relevant advertisements. EBSNs help reduce this burden on those who are willing to create their group. Meetup sends messages to those who have similar keywords, but those potential participants still face information overload by being sent too many irrelevant advertisements. Emergent leaders also must overcome the challenge of hoping Meetup will recommend the group to the right audience, since there is little indication that others are willing to participate in that specific group activity.

This research addresses these concerns through the prototypical features. The Interested People section and the Activities section show users that people are willing to participate in an activity, since they have a vested interest. This reduces the challenge of not knowing others are willing to participate. The Brainstorming and Activities sections also empower individuals to come together and disperse the responsibility of leadership among several people. This overcomes the challenge of being a lone organizer. With multiple people, an individual only needs to make one or two decisions, reducing effort.

Finally, the use of these features creates a critical mass of people who are willing to participate, which increases the likelihood an activity will be successful. Traction is gained quickly, so that other users will be recommended to the activity for higher attendance.

It is recommended that EBSNs and other social organizing tools take the opportunity to design and develop features or tools that empower individuals in the community to come together and share the organizing responsibility, rather than have them miss out on potential activities and social groups.

As mentioned above, information overload is a problem for coalescing – both online and offline. With the consideration of using lightweight coalescing features to increase the amount of interest-based group activities, one must think of the success of implementing these features into a coalescing system. Improper implementation could lead to information overload from those who search for activities. For instance, if a user searches for several activities, then starts receiving too many alerts of interested people, brainstorming comments, or too many activities being created, there will be less chance they will find one they agree to attend. Further study must be done to reduce information overload and understand when relevant information becomes too much in regards to activity coalescing. This should be studied during the design and initial usage of an interactive system.

10.5 Broader Impacts

The dissertation work exemplifies design implications that can increase the likelihood of

successful group formation through lightweight coalescing features and distributing the leadership responsibility among several people instead of one individual. By empowering individuals to work together, each shares responsibility and is given accountability, which in turn enables higher success. Bringing people together increases social capital, and empowers communities to thrive as well. The implementation of these features and giving awareness of others who share interests will increase group activity and social capital.

Another contribution to this work is the addition to knowledge of motivation to coalesce. Current research in collective action and critical mass trajectories describe how people coalesce, and the likelihood someone would join an activity. These theories do not describe the motivation to being the coalescing process based on critical mass trajectories or the number of people who are willing to participate if someone initiates coalescing. This dissertation has generated a new area of research into how people coalesce for interest-based group activities. The current models used for collective action do not apply to motivation. This dissertation found that people's motivation does increase in the (online) presence of others who display a shared interest, but there is an inflection point when too many people show interest. It was also found that this inflection point was not due to social facilitation or social loafing, so another moderator may be at play. Further investigations into the intricacies of this model are needed.

10.6 Future Contributions

Currently, two of the four studies have been published to international conferences. The

author intends to submit to other social and technology conferences within the next year to disseminate this research. Results on behaviors will be submitted to CSCW, HICSS, and GROUP-type conferences, and design implications of the final study will be submitted to CHI. Data from Study 2 and Study 3 will be compared to see the differences and similarities of behaviors between organizers in a campus community and organizers in an online community. Additionally, deeper analysis will be performed on the data captured from the final study to test the types of interests and numbers needed to see if usage is affected by activity type. Finally, the findings from these studies will be combined and written as journal articles to social science technology journals within two years.

APPENDIX A

IRB APPROVALS AND CONSENT FORMS

In this appendix you will find the:

- (1) IRB Approval Form for Study 1 (Feb. 2014)
- (2) Consent Form for Study 1 (Feb. 2014)
- (3) IRB Approval for Study 2 (Feb. 2014)
- (4) Consent Form for Study 2 (Feb. 2014)
- (5) IRB Approval for Study 3 (Dec. 2014)
- (6) Consent Form for Study 3 (Dec. 2014)
- (7) IRB Approval for Study 4 (May 2016)
- (8) Consent Form for Study 4 (May 2016)

Institutional Review Board: HHS FWA 00003246 Notice of Approval

IRB Protocol Number: F180-13

Principal Investigators: Dr. Quentin Jones; Stephen Ricken

Department: College of Computing Science – Information Systems

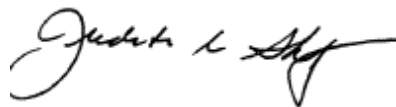
Title: An Examination of Group Activity Participation in an Urban Community Performance Site(s): On
Campus Type of Review: FULL [x]

Type of Approval: NEW [x] Approval Date: February 6, 2014

EXPEDITED [] RENEWAL [] REVISION []

Expiration Date: February 5, 2015

1. **ADVERSE EVENTS:** Any adverse event(s) or unexpected event(s) that occur in conjunction with this study must be reported to the IRB Office immediately (973) 596-5825.
2. **RENEWAL:** Approval is valid until the expiration date on the protocol. You are required to apply to the IRB for a renewal prior to your expiration date for as long as the study is active. It is your responsibility to ensure that you submit the renewal in a timely manner.
3. **CONSENT:** All subjects must receive a copy of the consent form as submitted. Copies of signed consent forms must be kept on file with the principal investigator.
4. **SUBJECTS:** Number of subjects approved: 75
5. The investigator(s) did not participate in the review, discussion, or vote of this protocol.
6. **APPROVAL IS GRANTED ON THE CONDITION THAT ANY DEVIATION FROM THE PROTOCOL WILL BE SUBMITTED, IN WRITING, TO THE IRB FOR SEPARATE REVIEW AND APPROVAL.**



Judith Sheft, IRB Chair,

NEW JERSEY INSTITUTE OF TECHNOLOGY 323 MARTIN LUTHER KING
BLVD. NEWARK, NJ 07102

CONSENT TO PARTICIPATE IN A RESEARCH STUDY TITLE OF STUDY: An
Examination of Group Activity Participation in an Urban Community

RESEARCH STUDY: I, _____, have been
asked to participate in a research study under the direction of Dr. Quentin Jones, Stephen
Ricken and other professional persons who work with them as study staff may assist to
act for them.

PURPOSE: The purpose of this study is to understand interests and experiences with
interest-based groups/activities on campus.

DURATION: My participation in this study will last for roughly 15 minutes.

PROCEDURES: I have been told that, during the course of this study, the following will
occur:

7. Will be briefed on the interview goal
8. Participate in a recorded 15-minute interview
9. Data from this interview will be mined for research purposes

PARTICIPANTS: I will be one of about 75 participants in this study.

EXCLUSIONS: I will inform the researcher if any of the following apply to me:

I do not speak English fluently I have participated in a similar study at NJIT previously,
and/or if I am under 18 years of age.

RISKS/DISCOMFORTS: I have been told that the study described above may involve
the following risks and/or discomforts:

No Discomforts There also may be risks and discomforts that are not yet known.

I fully recognize that there are risks that I may be exposed to by volunteering in this study
which are inherent in participating in any study; I understand that I am not covered by
NJIT's insurance policy for any injury or loss I might sustain in the course of
participating in the study.

CONFIDENTIALITY: I understand that the information I am revealing is anonymous.
Every effort will be made to maintain the confidentiality of my study records. If the

findings from the study are published, I will not be identified by name. My identity will remain anonymous and confidential unless disclosure is required by law.

VIDEOTAPING/AUDIOTAPING:

I understand that I will be audio taped during the course of this study. Audio files will be stored for 2 years after the end of this project. After that time, the files will be deleted from hard drives

10-23-12 IRB Human Subject Review Form

The files will be stored on a password protected computer at NJIT and will not be made available to anyone except Quentin Jones and Stephen Ricken who are involved in this research.

PAYMENT FOR PARTICIPATION: I have been told that I will receive no compensation for my participation in this study.

RIGHT TO REFUSE OR WITHDRAW: I understand that my participation is voluntary and I may refuse to participate, or may discontinue my participation at any time with no adverse consequence. I also understand that the investigator has the right to withdraw me from the study at any time.

INDIVIDUAL TO CONTACT: If I have any questions about my treatment or research procedures, I understand that I should contact the principal investigator at:

Dr. Quentin Jones 5600 GITC, NJIT 973-596-5675

If I have any addition questions about my rights as a research subject, I may contact:

Judith Sheft, IRB Chair New Jersey Institute of Technology 323 Martin Luther King Boulevard Newark, NJ 07102 (973) 596-5825 sheft@njit.edu / irb@njit.edu

SIGNATURE OF PARTICIPANT

I have read this entire form, or it has been read to me, and I understand it completely. All of my questions regarding this form or this study have been answered to my complete satisfaction. I agree to participate in this research study.

Participant Name Signature Date

SIGNATURE OF INVESTIGATOR OR RESPONSIBLE INDIVIDUAL (Only required for consent forms of projects requiring full IRB approval)

To the best of my knowledge, the participant, has understood the entire content of the

above consent form, and comprehends the study. The participants and those of his/her parent/legal guardian have been accurately answered to his/her/their complete satisfaction.

Investigator's Name Signature Date

10-23-12 IRB Human Subject Review Form

Institutional Review Board: HHS FWA 00003246 Notice of Approval

IRB Protocol Number: F181-13

Principal Investigators Dr. Quentin Jones Stephen Ricken

Department: College of Computing Science – Information Systems

Title: A Study of Leadership Support Through Group Coalescing Systems Performance Site(s): Skype Calls to Meetup.com Users

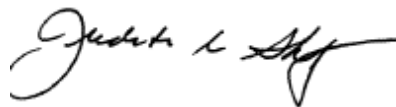
Type of Review: FULL Type of Approval: NEW Approval Date: February 6, 2014

EXPEDITED RENEWAL REVISION

Expiration Date: February 5, 2015

ADVERSE EVENTS: Any adverse event(s) or unexpected event(s) that occur in conjunction with this study must be reported to the IRB Office immediately (973) 596-5825.

1. RENEWAL: Approval is valid until the expiration date on the protocol. You are required to apply to the IRB for a renewal prior to your expiration date for as long as the study is active. It is your responsibility to ensure that you submit the renewal in a timely manner.
2. CONSENT: All subjects must receive a copy of the consent form as submitted. Copies of signed consent forms must be kept on file with the principal investigator.
3. SUBJECTS: Number of subjects approved: 75
4. The investigator(s) did not participate in the review, discussion, or vote of this protocol.
5. APPROVAL IS GRANTED ON THE CONDITION THAT ANY DEVIATION FROM THE PROTOCOL WILL BE SUBMITTED, IN WRITING, TO THE IRB FOR SEPARATE REVIEW AND APPROVAL.



Judith Sheft, IRB Chair,

Consent Form for Study 2

NEW JERSEY INSTITUTE OF TECHNOLOGY

323 MARTIN LUTHER KING BLVD. NEWARK, NJ 07102

CONSENT TO PARTICIPATE IN A RESEARCH STUDY TITLE OF STUDY: A
Study of Leadership Support Through Group Coalescing Systems

RESEARCH STUDY: I, _____, have been asked to participate in a research study under the direction of Dr. Quentin Jones and Stephen Ricken. Other professional persons who work with them as study staff may assist to act for them.

PURPOSE: The purpose of this study is to understand interests and experiences of people who turn to Meetup.com to organize interest-based groups/activities.

DURATION: My participation in this study will last for ____30 minutes_____.

PROCEDURES: I have been told that, during the course of this study, the following will occur:

6. Will be briefed on the interview goal
7. Participate in a recorded 30-minute interview
8. Data from this interview will be mined for research purposes

PARTICIPANTS: I will be one of about 75 participants in this study.

EXCLUSIONS: I will inform the researcher if any of the following apply to me:

I do not speak English fluently I have participated in a similar study at NJIT previously if I am under 18 years of age. I am not a leader of a meetup.com group I do not live in New Jersey or New York

RISKS/DISCOMFORTS:

Approved by the NJIT IRB on 2/6/2014 – F 181-13 Modifications may not be made to this consent form without NJIT IRB approval



I have been told that the study described above may involve the following risks and/or discomforts:

No Discomforts There also may be risks and discomforts that are not yet known.

I fully recognize that there are risks that I may be exposed to by volunteering in this study which are inherent in participating in any study; I understand that I am not covered by NJIT's insurance policy for any injury or loss I might sustain in the course of participating in the study.

CONFIDENTIALITY: I understand that the information I am revealing is anonymous. Every effort will be made to maintain the confidentiality of my study records. If the findings from the study are published, I will not be identified by name. My identity will remain anonymous and confidential unless disclosure is required by law.

VIDEOTAPING/AUDIOTAPING:

I understand that I will be audio taped during the course of this study. Audio files will be stored for 2 years after the end of this project. After that time, the Files will be deleted from hard drives

The files will be stored on a password protected computer at NJIT and will not be made available to anyone except Quentin Jones and Stephen Ricken who are involved in this research.

PAYMENT FOR PARTICIPATION: I have been told that I have chance to receive one of three \$25 Amazon or Amex gift cards as compensation for my participation in this study.

RIGHT TO REFUSE OR WITHDRAW: I understand that my participation is voluntary and I may refuse to participate, or may discontinue my participation at any time with no adverse consequence. I also understand that the investigator has the right to withdraw me from the study at any time.

INDIVIDUAL TO CONTACT: If I have any questions about my treatment or research procedures, I understand that I should contact the principal investigator at:

Dr. Quentin Jones 5600 GITC, NJIT 973-596-5675

If I have any addition questions about my rights as a research subject, I may contact:

Judith Sheft, IRB Chair New Jersey Institute of Technology 323 Martin Luther King Boulevard Newark, NJ 07102

Approved by the NJIT IRB on 2/6/2014 – F 181-13 Modifications may not be made to this consent form without NJIT IRB approval

(973) 596-5825 sheft@njit.edu / irb@njit.edu

SIGNATURE OF PARTICIPANT

I have read this entire form, or it has been read to me, and I understand it completely. All of my questions regarding this form or this study have been answered to my complete satisfaction. I agree to participate in this research study.

Participant Name Signature Date

SIGNATURE OF INVESTIGATOR OR RESPONSIBLE INDIVIDUAL (Only required for consent forms of projects requiring full IRB approval)

To the best of my knowledge, the participant, has understood the entire content of the above consent form, and comprehends the study. The participants and those of his/her parent/legal guardian have been accurately answered to his/her/their complete satisfaction.

Investigator's Name Signature Date



Approved by the NJIT IRB on 2/6/2014 – F 181-13 Modifications may not be made to this consent form without NJIT IRB approval

IRB Approval for Study 3: An examination of Group Activity Participation in an Urban Community



Institutional Review Board: HHS FWA 00003246

Notice of Approval

IRB Protocol Number: F 210-14

Principal Investigators: Quentin Jones

Title: An examination of Group Activity Participation in an Urban Community

Performance Site(s): on-line

Type of Review: FULL EXPEDITED

Type of Approval: NEW RENEWAL REVISION

Approval Date: December 1, 2014

Expiration Date: December 2, 2015

1. **ADVERSE EVENTS:** Any adverse event(s) or unexpected event(s) that occur in conjunction with this study must be reported to the IRB Office immediately (973) 596-6053.
2. **RENEWAL:** Approval is valid until the expiration date on the protocol. You are required to apply to the IRB for a renewal prior to your expiration date for as long as the study is active. It is your responsibility to ensure that you submit the renewal in a timely manner.
3. **CONSENT:** All subjects must receive a copy of the consent form as submitted. Copies of signed consent forms must be kept on file with the principal investigator.
4. **SUBJECTS:** Number of subjects approved: 100
5. The investigator(s) did not participate in the review, discussion, or vote of this protocol.
6. **APPROVAL IS GRANTED ON THE CONDITION THAT ANY DEVIATION FROM THE PROTOCOL WILL BE SUBMITTED, IN WRITING, TO THE IRB FOR SEPARATE REVIEW AND APPROVAL.**

A handwritten signature in black ink that reads "Norma I. Rubio". The signature is written in a cursive style.

Norma Rubio, IRB Chair

IRB Consent Form Study 3

**NEW JERSEY INSTITUTE OF TECHNOLOGY
323 MARTIN LUTHER KING BLVD.
NEWARK, NJ 07102**

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TITLE OF STUDY: MEASURING THE EXTENT TO WHICH OPPORTUNITIES ARE BEING UNMET IN AN URBAN SETTING

RESEARCH STUDY:

I, _____, have been asked to participate in a research study under the direction of Dr. Quentin Jones, Stephen Ricken and Other professional persons who work with them as study staff may assist to act for them.

PURPOSE:

The purpose of this study is to understand interests and experiences with interest-based groups/activities on campus.

DURATION:

This survey will last for roughly 5-10 minutes.

PROCEDURES:

I have been told that, during the course of this survey, the following will occur:

1. Will be briefed on the survey goal
2. Answer questions on a self-guided online survey
3. Data from this survey will be mined for research purposes

PARTICIPANTS:

I will be one of about 100 participants in this study.

EXCLUSIONS:

I will inform the researcher if any of the following apply to me:

I do not speak English fluently.

I have participated in a similar study at NJIT previously, and/or if I am under 18 years of age.

I am not currently enrolled as a student.

RISKS/DISCOMFORTS:

I have been told that the study described above may involve the following risks and/or discomforts:

No Discomforts

There also may be risks and discomforts that are not yet known.

I fully recognize that there are risks that I may be exposed to by volunteering in this study which are inherent in participating in any study; I understand that I am not covered by NJIT's insurance policy for any injury or loss I might sustain in the course of participating in the study.

CONFIDENTIALITY:

I understand that the information I am revealing is anonymous. Every effort will be made to maintain the confidentiality of my study records. If the findings from the study are published, I will not be identified by name. My identity will remain anonymous and confidential unless disclosure is required by law.

PAYMENT FOR PARTICIPATION:

I have been told that I will have a 1 in 25 chance to win a \$25 gift card.

RIGHT TO REFUSE OR WITHDRAW:

I understand that my participation is voluntary and I may refuse to participate, or may discontinue my participation at any time with no adverse consequence. I also understand that the investigator has the right to withdraw me from the study at any time.

INDIVIDUAL TO CONTACT:

If I have any questions about my treatment or research procedures, I understand that I should contact the principal investigator at:

Dr. Quentin Jones

5600 GITC, NJIT

973-596-5675

If I have any addition questions about my rights as a research subject, I may contact:

Dr. Atam Dhawan
New Jersey Institute of Technology
323 Martin Luther King Boulevard
Newark, NJ 07102
irb@njit.edu

SIGNATURE OF PARTICIPANT

I have read this entire form, or it has been read to me, and I understand it completely. All of my questions regarding this form or this study have been answered to my complete satisfaction. I agree to participate in this research study.

Participant Name _____

Signature _____

Date _____



IRB Approval for Study 4: A Study of Using Technology to Persuade Users to Begin the Coalescing Process

Institutional Review Board: HHS FWA 00003246 Notice of Approval IRB Protocol Number: F279-16

Principal Investigators: Quentin Jones, PhD (IS) Stephen Ricken, PhD student (IS)

Title: A Study of Using Technology to Persuade Users to Begin the Coalescing Process

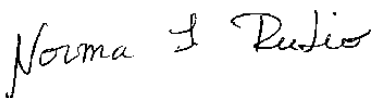
Type of Review: FULL Type of Approval: NEW Approval Date: May 9, 2016

EXPEDITED RENEWAL REVISION

Expiration Date: May 9, 2017

1. ADVERSE EVENTS: Any adverse event(s) or unexpected event(s) that occur in conjunction with this study must be reported to the IRB Office immediately (973) 596-6053.
2. RENEWAL: Approval is valid until the expiration date on the protocol. You are required to apply to the IRB for a renewal prior to your expiration date for as long as the study is active. It is your responsibility to ensure that you submit the renewal in a timely manner.
3. CONSENT: All subjects must receive a copy of the consent form as submitted. Copies of signed consent forms must be kept on file with the principal investigator.
4. SUBJECTS: Number of subjects approved: 2,000
5. The investigator(s) did not participate in the review, discussion, or vote of this protocol.
6. APPROVAL IS GRANTED ON THE CONDITION THAT ANY DEVIATION FROM THE PROTOCOL WILL BE SUBMITTED, IN WRITING, TO THE IRB FOR SEPARATE REVIEW AND APPROVAL.

Norma Rubio, IRB Co -Chair,



Consent Form for Study 4

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TITLE OF STUDY:

A STUDY OF using technology to persuade users to BEGIN THE COALESCING PROCESS.

RESEARCH STUDY:

I have been asked to participate in a research study under the direction of Dr. Quentin Jones.

PURPOSE:

The purpose of this study is to gather feedback on the design of an application to organize people who share similar interests.

DURATION:

My participation in this study will last for no longer than 15 minutes.

PROCEDURES:

I have been told that, during the course of this study, the following will occur:

1. Briefed of the study goal
2. Complete a survey
3. Data from this study will be mined for research purposes

PARTICIPANTS:

I will be one of about 2000 participants in this study.

EXCLUSIONS:

I will inform the researcher if any of the following apply to me:

1. Must be between 18 and 33 years of age
2. Must be a U.S. resident
3. Must own a smartphone (Android, iPhone, Windows phone or equivalent)
4. Must be able to specify at least three group-activity based interests

RISKS/DISCOMFORTS:

I have been told that the study described above may involve the following risks and/or discomforts:

1. No discomforts
2. There also may be risks and discomforts that are not yet known
3. I fully recognize that there are risks that I may be exposed to by volunteering in this study which are inherent in participating in any study; I understand that I am not covered by NJIT's insurance policy for any injury or loss I might sustain in the course of participating in the study

CONFIDENTIALITY:

I understand confidential is not the same as anonymous. Confidential means that my name will not be disclosed if there exists a documented linkage between my identity and my responses as recorded in the research records. Every effort will be made to maintain the confidentiality of my study records. If the findings from the study are published, I

will not be identified by name. My identity will remain confidential unless disclosure is required by law.

PAYMENT FOR PARTICIPATION:

I have been told that I will receive \$0.50 compensation for my participation in this study.

RIGHT TO REFUSE OR WITHDRAW:

I understand that my participation is voluntary and I may refuse to participate, or may discontinue my participation at any time with no adverse consequence. I also understand that the investigator has the right to withdraw me from the study at any time.

INDIVIDUAL TO CONTACT:

If I have any questions about my treatment or research procedures, I understand that I should contact the principal investigator at:

Dr. Quentin Jones

5600 GITC, NJIT

973-596-5675

Farzan Nadim, IRB Chair

New Jersey Institute of Technology

323 Martin Luther King Boulevard

Newark, NJ 07102

973-596-5825

irb@njit.edu // farzan@njit.edu

SIGNATORY RESPONSE OF PARTICIPANT:

I have read this entire form, or it has been read to me, and I understand it completely. All of my questions regarding this form or this study have been answered to my complete satisfaction.

APPENDIX B

STUDY 1 INTERVIEW GUIDE

Interview Study: Group coalescing

Goal

Discover the extent of:

- People's knowledge of activities around them
- The coalescing process challenges
- People's willingness to organize and participate in activities
- Initiative and leadership necessities
- Technology support of above

Research Questions

- Are people maximizing their time to increase social capital on campus?
- How does information managed by social apps impact coalescing of interest-based activity groups?
- Is the coalescing of new groups dependent on one person engaging a group of friends/colleagues before publicly advertising their interest-based activity?
- What are people's experiences organizing and participating in interest-based activity groups: success, failure, and challenges?

Study

Qualitative study: interviews

- talking to active participants/organizers
- talk to people at places that offer activities (soccer field, gym, etc.)
- find successful groups and unsuccessful groups – ask what worked? What didn't work?

Challenge: find unsuccessful groups – find organizers that failed, what was their target audience?

Subjects

1. Interdisciplinary research groups (simulate long-term research groups)
2. Students involved in senior projects (simulate short-term project teams)
3. Social interest groups

	Organizer	Possible participants
Successful	Church group Starcraft guy Successful Meetups	Attendants Starcraft players around campus OR human beings that are interested in starcraft Nerds?
Unsuccessful	Find meetups that were canceled because they didn't get enough people Offline activities that ended up failing to happen Hockey skating – too many goalies and not enough players	Everybody - I heard about it but it didn't happen - I wish I have known - I didn't know who's interested

Interview #: Day & Time: Location: Observed
Activity:

Name: Gender: Age: Major:
Year:

About you

1. Do you use a smart phone?

2. What social apps do you usually use? Mobile/desktop?
3. Are you a commuter or resident?
4. What types of interests do you have?
5. Are you part of / Did you join activities/groups involved in these types of interests? Organizer?
6. Was there any group/activity that you tried to participate in that never happened? Organizer?
7. Was there a group you participated in that doesn't meet anymore? Organizer?
8. How do you search for activities?
9. Have you searched for groups or activities and did not find what you were looking for? What did you do?
10. Have you ever tried to start an activity/group?
11. How do you feel about the amount of activities you are involved in?

12. Are there activities you would like to do but haven't?

13. What do you think about the amount of activities on campus?

14. How often do you participate in activities on campus?

15. What do you do between and after class?

16. What do you do on the weekend?

17. When was the last time a friend invited you to an activity?

18. Have you brought a friend to an activity?

Current activity

Could you tell me about this activity?

How often does it meet?

How did you find out about it?

What happened the first time you went?

Did you try to get others to join?

Something you would want to do

1. Could you tell me a little more about what you envision?
2. Did you ever try to find people interested in this? Do you know if your friends would be interested?
3. Did you ever look for existing group activities?
4. Did you ever try to make a group/do activity?
5. Was there a time where you went to a place to see if an activity was happening there?
6. What and how strong is your motivation? (to organize / to participate)?
7. Are there any requirements participants have to fulfill? (only NJIT students, only locals, skills)

For unsuccessful group/activity - Participant

Never Happened

Doesn't meet anymore

Found out too late or after it happened

APPENDIX C

STUDY 2 CONTENT

In this Appendix:

- (1) Interview Guide**
- (2) Survey Guide**
- (3) Statistical analysis**
- (4) List of 763 Meetup Groups**

Study 2: A Study of Leadership Support Through Group Coalescing Systems

Research Questions:

RQ1: What challenges do organizers face during the initial process of gaining a critical mass using an online system for their interest-based activity group?

RQ2: What resources for the organizer relate to the initial success of gaining a critical mass for an interest-based group activity?

RQ3: What is the decision making process to becoming an organizer, and what barriers prevent people from creating new groups?

RQ4: How does technology play a role in the coalescing process, at what point is it easier and harder than traditional methods?

Interview #:

Day & Time:

Name:

Questions

Demographics

Gender

Male | Female

Age

< 18 | 18-21 | 22 – 25 | 26 – 29 | 30 – 39 | 40 – 49 | 50 – 59 | 60+ | Prefer not to say

What city and state do you currently live in?

Are you currently employed?

Full-time | Part-time | Unemployed | Retired | Other

What is your occupation?

Do you currently go to school?

Full-time | Part-time | No

What school do you attend?

What is your major?

What is your current year of study?

Freshman | Sophomore | Junior | Senior | Graduate | Ph.D.

Interview

About you

Do you use a smart phone? Which one?

What social apps do you usually use? Mobile/desktop?

What types of interests do you have?

What activity groups are you a part of (not associated with meetup)? - Investigate

About Meetup.com

How long have you been an active user of Meetup.com?

How did you hear about it originally?

How often do you use it to find activities or groups based on your interest?

What Meetup.com groups are you a member of?

How often do you participate in an activity for each?

Were there groups that you joined that you never participated in? / Never held a meeting?

How did you find out about the groups you are in?

Have you searched for an interest but couldn't find a group?

Get Details

What did you do?

Did you form a group? Did you think about forming a group? Why/why not?

For what groups are you an organizer?

Tell me about the group.

Did you start the group?

Why did you start the group?

How strong was your motivation?

Did you search to see if this group existed beforehand? What makes yours different?

Did this group start on Meetup.com or before?

What process did you go through?

How did you find/advertise to people? How did people find out about your group?

What was your goal?

Do you find this to be a successful group?

Do you plan to start another group?

Have you searched if this group exists?

Why do you want to?

When would you?

Do you have any hesitations?

Would you start another group?

What challenges did you face, using meetup.com?

What advantages do you see in using meetup.com to start a group?

(If not founder) How did you become the organizer?

How do you feel about the amount of activities you are involved in?

Are there interests that you would like to find groups but haven't?

Thank you for participating in this study.

Survey Guide

Survey questions:

What is the name of your Meetup group?

Why did you start this group?
Open question

What is your group about?
Open question

How many people did you personally know were interested in this before creating this group?
Know_others_interested_number

Did you form a group of people offline for this interest before organizing your group on Meetup?
PreMeetup_group (Yes/No)

How many people were in this group?
Premeetup_group_number

Did you organize an activity related to this interest before organizing your meetup group?
Premeetup_activity (Yes/No)

What is your own assessment of how successful this group is going to be?
Subjective_success_group (Very unsuccessful to very successful)

Have you had your first meetup?
First_Meetup (Yes/No)

If yes:

How many people did you expect to have at a first meetup?
Beginning_expected_attendance [number]

How many people actually came?
Beginning_Attendance [Not enough came / enough but I wish more came / the right amount / too many, but it was fine / too many, it was unmanageable]

Was there active participation?
Beginning_Participation
[Not enough participation / enough but I wish more participated / the right amount / too much, but it was fine / too much, it was unmanageable]

How much work was involved in organizing the meetup?
Meetup_work [very little to very much]

How successful do you feel the first meetup was?
Subjective_success_firstmeetup [Very unsuccessful to very successful]

If no:

When is your first meetup going to be?
When_is_first_meetup [I don't have a date set / Date]

How many people do you need for a successful meetup?
People_needed [number]

How successful do you think your first meetup is going to be?
Subjective_success_firstmeetup [Very unsuccessful to very successful]

For both Yes/No
 This is the last part, please fill out these final questions:

Leadership Motivation

<ol style="list-style-type: none"> 1. Most of the time, I prefer being a leader rather than a follower when working in a group 2. I am the type of person who is not interested in leading others 3. I am definitely not a leader by nature 4. I am the type of person who likes to be in charge of others 5. I usually want to be the leader in the groups that I work in 	Affective-Identity MTL (Motivation to lead)* Strongly disagree Disagree Neither agree nor disagree Agree Strongly Agree
<ol style="list-style-type: none"> 1. I am only interested to lead a group if there are clear advantages for me 2. I will never agree to lead if I cannot see any benefits from accepting that role. 3. I would only agree to be a group leader if I know I can benefit from that role. 4. I would agree to lead others even if there are no special rewards or benefits with that role. 5. I have more of my own problems to worry about than to be concerned about 	Noncalculative MTL Strongly disagree Disagree Neither agree nor disagree Agree Strongly Agree

the rest of the group	
1. I feel that I have a duty to lead others if I am asked	Social-Normative MTL
2. I agree to lead whenever I am asked or nominated by the other members	Strongly disagree Disagree
3. I was taught to believe in the value of leading others	Neither agree nor disagree Agree
4. It is appropriate for people to accept leadership roles of positions when they are asked	Strongly Agree
5. It is an honor and privilege to be asked to lead	

* MTL factors come from Chan and Drasgow 2001

Variable: Meetup Group Success

Initial Success (objective) = [Beginning_Attendance + Beginning_Participation]

Subjective anticipated success = (interviewee's assessment question)

Longer term success = ("After 1-2 months, check to see if the mined group exists, and has more/any meetups")

Statistical Analysis

Crosstabs of Attendance * Perceived Success

		How many people actually came?			Total
		Far too few	Too few	About right	
How successful do you feel the first meetup was?	Very unsuccessful	3	0	1	4
	Unsuccessful	2	3	1	6
	Unsure	1	3	1	5
	Successful	1	9	22	32
	Very Successful	0	0	16	16
Total		7	15	41	63

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	38.596	8	.000
Likelihood Ratio	36.648	8	.000
Linear-by-Linear Association	25.684	1	.000
N of Valid Cases	63		

		Value	Approx. Sig.
Nominal by Nominal	Phi	.783	.000
	Cramer's V	.553	.000
N of Valid Cases		63	

Crosstabs of Attendance * Exists 1 Month Later

		Exists 1 month later		Total
		Yes	No	
How many people actually came?	Far too few	4	3	7
	Too few	14	1	15
	About right	37	4	41
Total		55	8	63

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.556 ^a	2	.038
Likelihood Ratio	4.834	2	.089
Linear-by-Linear Association	3.295	1	.069
N of Valid Cases	63		

	Value	Approx. Sig.
Nominal by Nominal Phi	.323	.038
Cramer's V	.323	.038
N of Valid Cases	63	

Crosstabs of Perceived Success * Active Participation

		Was there active participation?				Total
		Far too little	Too little	About right	Too much	
How successful do you feel the first meetup was?	Very unsuccessful	3	0	1	0	4
	Unsuccessful	1	2	3	0	6
	Unsure	0	2	3	0	5
	Successful	1	0	30	1	32
	Very Successful	0	0	16	0	16
Total		5	4	53	1	63

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	49.583 ^a	12	.000
Likelihood Ratio	32.898	12	.001
Linear-by-Linear Association	22.737	1	.000
N of Valid Cases	63		

		Value	Approx. Sig.
Nominal by Nominal	Phi	.887	.000
	Cramer's V	.512	.000
N of Valid Cases		63	

Crosstabs of Exists 1 Month Later * Active Participation

		Exists 1 month later		Total
		Yes	No	
Was there active participation?	Far too little	2	3	5
	Too little	4	0	4
	About right	48	5	53
	Too much	1	0	1
Total		55	8	63

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.328	3	.010
Likelihood Ratio	8.106	3	.044
Linear-by-Linear Association	7.524	1	.006
N of Valid Cases	63		

		Value	Approx. Sig.
Nominal by Nominal	Phi	.424	.010
	Cramer's V	.424	.010
N of Valid Cases		63	

Believing in a Successful Group and Longer-term Success

		Exists 1 month later		Total
		Yes	No	
What is your own assessment of how successful your group is going to be?	Very unsuccessful	2	1	3
	Unsuccessful	4	3	7
	Unsure	22	5	27
	Successful	39	2	41
	Very successful	18	2	20
Total		85	13	98

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.717	4	.045
Likelihood Ratio	8.474	4	.076
Linear-by-Linear Association	5.962	1	.015
N of Valid Cases	98		

	Value	Approx. Sig.
Nominal by Nominal Phi	.315	.045
Cramer's V	.315	.045
N of Valid Cases	98	

List of 763 Meetup groups

Group Name	Sent Email	Founded	First Meetup	# of people at first meetup	Date Checked	2=(NO)	Last Meetup	# attended	Members	Meetups
Albany Street/Hudson River Greenway Morning Run	9/28/14	9/3/14			11/16/14	1	None		1	0
Atlantic Beach Kids Surf Club	6/4/14	4/24/14	6/1/14		7/10/14	1	None		1	0
Carnatic Violin Duet	6/6/14	4/27/14			7/10/14	1	None		1	0
New York learning Meetup	6/10/14	4/24/14	5/5/14		7/10/14	1	None		1	0
Argentine Tango - Beginners	6/3/14	4/30/14			7/15/14	1	None		1	0
Alpha Legion	7/10/14	6/21/14			7/15/14	1	None		1	0
The Brooklyn Buck Hunter League	6/5/14	5/9/14			7/16/14	1	None		1	0
PICKUP BASKETBALL PLAYGROUP FOR KIDS! (ages 8-12...ish)	6/17/14	5/8/14			7/16/14	1	None		1	0
LIC Tech + Creative	6/3/14	5/17/14			9/25/14	1	None		1	0
Huntington Board Games Meetup	6/6/14	5/2/14			7/15/14	1	None		2	0
Manhattan Mopeders	6/2/14	5/5/14			7/16/14	1	None		2	0
NYC Lady Brown's Series of Discussions For Women of Color	6/20/14	5/27/14			9/25/14	1			2	0
New York City Watch Club	10/6/14	9/11/14			4/11/15	1	None		2	0
The Skin Care Addicts	8/25/14				8/29/14	2			2	0
Morristown Area Bootcamp Meetup	6/4/14	5/9/14			7/16/14	1	None		3	0
Agony o'de Feet Running Club	6/11/14	5/27/14	6/3/14		9/25/14	1	None		3	0
Compañeros de Oaxaca in NYC!	6/11/14	6/2/14			9/25/14	1	None		3	0
Silver Lining Social Group: Night Out	7/12/14	6/12/14			9/25/14	1	None		3	0
Underground Dining Cult	7/14/14	6/12/14			9/25/14	1	None		3	0
Hamilton Heights New York Pug Play Group Meetup	11/15/14	10/16/14			2/11/15	1	None		3	0
Welcome to historic Murray Hill Station	6/3/14	5/4/14			7/16/14	1	None		4	0
Brooklyn Exercise and Fun Meetup.	6/7/14	4/25/14			7/10/14	1	None		4	0
Deer Park Walking for Fitness Meetup	6/9/14	5/7/14			7/16/14	1	None		4	0
Hudson Valley Guys Night Out Meetup	6/7/14	5/17/14			9/25/14	1	None		4	0
VARIOUS Media INK	6/13/14	5/23/14	6/18/14		9/25/14	1	None		4	0
Old Greenwich training for 2014 NYC Marathon	6/11/14	4/22/14	4/26/14		7/10/14	1	None		5	0
DIY Ladies Decorators	5/29/14	5/16/14			7/16/14	1	None		5	0
Warwick Weightlifting Club	10/3/14	9/9/14			4/11/15	1	None		5	0
Couples Weekend movie/discussion grp (ages 50's + 60's)	6/9/14	4/21/14	5/10/14		7/10/14	1	None		6	0

Point Pleasant Beach Have Fun Losing Weight Meetup	6/4/14	5/12/14			7/16/14	1	None		6	0
Upper East Side Supper Club	6/6/14	5/12/14			7/16/14	1	None		6	0
Strong Movement Exercise Meetup	10/3/14	9/4/14			4/11/15	1	None		6	0
Tech Over Wine	6/5/14	4/23/14			7/10/14	1	None		7	0
The Brooklyn Gay Men's Journaling Salon	6/5/14	5/3/14			7/15/14	1	None		7	0
Central Jersey Chocoholics	7/25/14	6/12/14			9/25/14	1	None		7	0
MASHOMACK - PADDLE BOARD ADVENTURES	7/15/14	6/14/14			10/17/14	1	None		7	0
Lace Up! Meetup Everywhere	10/8/14	9/23/14			4/11/15	1			7	0
Long Island City Social Tennis Meetup	6/3/14	4/26/14			7/10/14	1	None		8	0
Adult Contemporary Modern Dance classes in Nyack, NY!	6/3/14	5/10/14			7/16/14	1	None		8	0
Movie Fans in Rockland County/Northern Bergen County	6/19/14	6/3/14			9/25/14	1	None		8	0
Lambertville LGBTQ Triathletes Meetup	11/6/14	10/8/14			2/18/15	1	None		8	0
New York Urban Walks Group Meetup (45+)	6/6/14	4/30/14			7/15/14	1	None		9	0
SLAM DOGS: Performance Poetry	6/2/14	5/15/14			7/16/14	1	None		9	0
Rockland Strollers and Adventurers	6/17/14	5/23/14			9/25/14	1	None		9	0
Zombies in NYC	5/27/14	5/4/14			7/15/14	1	None		1 0	0
Prospect Park walks—start the day active with your dog Meetup	6/11/14	5/9/14			7/16/14	1	None		1 0	0
NW New Jersey Prepper/Preparedness Meetup	6/7/14	5/20/14			9/25/14	1	None		1 0	0
New York Jet Fans on Long Island	11/15/14	10/3/14			2/11/15	1	None		1 0	0
Urban Creative Retreats	6/3/14	4/27/14			7/10/14	1	None		1 1	0
Lower Hudson Valley Writers Workshop Meetup	6/10/14	5/15/14			7/16/14	1	None		1 1	0
North NJ & NYC Indian History, Coinage, Ephemera, Artifacts	11/12/14	10/7/14			2/11/15	1	None		1 1	0
North Jersey Psychology Discussion & information group	11/12/14	10/26/14			2/11/15	1	None		1 1	0
Ocean County Outdoor Sports Club	9/20/14	7/15/14			4/11/15	1	None		1 1	0
Yonkers Social Media Meetup	5/27/14	5/10/14			7/16/14	1	None		1 2	0
Tribal Soccer/Football/Futbol	6/3/14	5/16/14	5/17/14		9/25/14	1	None		1 2	0
BNI Maplewood	6/11/14	5/24/14			9/25/14	1	None		1 2	0
Wwe Wrestling fan club	8/12/14	7/14/14			2/11/15	1	None		1 2	0
Philadelphia Eagles Fans of Stamford CT	11/11/14	10/30/14			2/11/15	1	None		1 2	0
Ueshiro Shorin Ryu Karate - Downtown NYC	10/3/14	9/25/14			4/11/15	1	None		1 2	0
Harlem Arts, NYC Meetup	10/16/14	8/29/14			2/18/15	1	None		1 3	0
Highland Falls Pick Up Soccer Meetup	9/27/14	7/19/14			11/15/14	1	None		1 4	0
Westfield Group Running Meetup	8/15/14	7/29/14			11/15/14	2			1 4	0
PICK IT UP! Bay Ridge Walking & Beautification	6/2/14	4/26/14	4/28/14		7/10/14	1	None		1 4	0

New York Space Exploration Meetup	6/6/14	4/23/14			7/10/14	1	None		1	4	0
Vocal Improvisation Playshop Meetup	6/3/14	5/14/14			7/16/14	1	None		1	4	0
Westchester "Dance Fever" Bedford Hills NY	6/5/14	5/12/14			7/16/14	1	None		1	4	0
Fair Lawn Art Association open studio	9/25/14	6/26/14			8/29/14	1	None		1	4	0
Brooklyn Jamaican Dancehall Patois Poetry	6/6/14	5/19/14			9/25/14	1	None		1	4	0
Neptune Mic Members	10/6/14	9/17/14			4/11/15	2			1	4	0
Free Upscale Stand-Up Comedy Events by NYC Laugh Junkies	6/10/14	5/17/14			9/25/14	1	None		1	5	0
Past Made Present NYC	6/11/14	5/1/14			7/15/14	1	None		1	6	0
Story Time For Adults	6/5/14	5/15/14			7/16/14	1	None		1	6	0
Chicago Marathon 2014 Runners Meetup	6/9/14	5/10/14			7/16/14	1	None		1	6	0
Open Source Food	7/26/14	6/30/14			8/29/14	1	None		1	6	0
Astoria Gourmet Gaming	7/13/14	6/26/14			7/15/14	1	None		1	7	0
New City No Limit Texas Hold 'em Meetup	11/15/14	10/18/14			2/11/15	1	None		1	7	0
Discussion Meetup-Creatively Maladjusted/Utopian Imagination	7/13/14	6/13/14			9/25/14	1	None		2	0	0
Wharfrats NJ	7/10/14	7/1/14			7/15/14	1	None		2	1	0
RiderCoaches - Eastern PA	6/17/14	5/14/14			7/16/14	1	None		2	2	0
North Jersey Yoga...in the Park	6/10/14	5/17/14			9/25/14	1	None		2	2	0
Syosset Bowling for Fun Meetup	6/14/14	5/19/14			9/25/14	1	None		2	2	0
North Babylon Monopoly Board Game Meetup for Gals :)	8/16/14	7/30/14			4/11/15	1	None		2	2	0
Northern NJ Fitness & Photography Workshops	6/10/14	5/15/14			7/16/14	1	None		2	3	0
New York City Paint and Sip Meetup	9/27/14	7/21/14			11/15/14	1	None		2	4	0
New Jersey FootGolf Networking Group	11/15/14	10/30/14			2/11/15	1	None		2	4	0
Barcelona/Liverpool Football Fans in NYC	9/29/14	9/8/14			4/11/15	1	None		2	4	0
Makers & Breakers	6/4/14	4/28/14			7/10/14	1	None		2	5	0
Exit 120 Kayakers	6/1/14	5/14/14			7/16/14	1	None		2	5	0
Hudson Cyclists	6/7/14	5/17/14			9/25/14	1	None		2	5	0
Early Morning McCarren Park Social Tennis Meetup	6/19/14	5/12/14			7/16/14	1	None		2	7	0
New York Creativity and Conversation Meetup	6/24/14	5/24/14			9/25/14	1	None		2	8	0
Books and Bites: Book Group for 20 & 30 somethings	6/5/14	5/6/14			7/16/14	1	None		2	8	0
Friday Evening Brooklyn Pick-up Softball Meetup	6/1/14	5/20/14			9/25/14	1	None		2	8	0
New York Fantasy Football Meetup	7/24/14	7/7/14			2/11/15	1	None		2	8	0
Endurance Cycling Meetup @ Dayton NJ	11/11/14	10/29/14			2/11/15	1	None		2	8	0
Westchester Pick-Up Basketball Association	11/6/14	10/26/14			2/18/15	1	None		3	0	0
Groove Specialist: Female DJ/Vocalists/Producers Meetup	11/15/14	10/20/14			2/11/15	1	None		3	2	0

New York Writers Critique Group Meetup	11/12/14	10/20/14			2/11/15	1	None		3	4	0
Northeast Cruise Enthusiasts	11/12/14	10/20/14			2/11/15	1	None		3	4	0
PERFORMERS AIDING PERFORMANCE ARTISTS	6/11/14	5/7/14			7/16/14	1	None		3	5	0
New York Skiing Meetup	11/12/14	10/10/14			2/11/15	1	None		3	6	0
Hudson Valley Anglers	7/26/14	7/2/14			2/11/15	1	None		3	7	0
The Secret Gems of New Jersey: Burlesque & Vaudeville Meetup	10/3/14	9/19/14			4/11/15	1	None		3	8	0
Stamford Boating Meetup	11/10/14	10/6/14			2/18/15	1	None		3	9	0
Brooklyn Biking Singles	11/6/14	10/3/14			2/18/15	1	None		4	2	0
Brentwood Co-Ed Adult Volleyball Meetup	11/10/14	10/31/14			2/18/15	1	None		4	2	0
North Jersey Mountain Bikers	10/5/14	9/3/14			4/11/15	2	None		4	3	0
Body Lovin' Babes	6/5/14	5/13/14			7/16/14	1			4	4	0
NYC Connected Car Meetup	10/5/14	9/2/14			4/11/15	1	None		4	4	0
Art Makers Collective	6/5/14	5/5/14			7/16/14	1	None		4	5	0
Creative Nomads NY	7/25/14	7/1/14			8/29/14	1	None		4	5	0
The NYC Golf Bus	7/15/14	6/29/14			8/15/14	1	None		4	6	0
Model / Photographer Networking Events NJ/NYC	6/20/14	5/19/14			9/25/14	1	None		4	9	0
House for International Artists	6/10/14	4/22/14			7/10/14	1	None		5	1	0
Downtown Tennis Buddy	6/18/14	5/31/14			9/25/14	1	None		5	2	0
Staten Island Gamers	11/10/14	10/4/14			2/18/15	1	None		5	2	0
fabulous, fit and fun NYC (women's self improvement group)	6/10/14	5/9/14	5/10/14		7/16/14	1	None		6	0	0
Artist Support Group	7/10/14	6/26/14	7/1/14		9/28/14	1	None		6	1	0
New York Master Debaters	10/6/14	9/15/14			4/11/15	1	None		6	7	0
New York Cool Fun Outdoor Adventures Group	6/18/14	5/29/14			9/25/14	1	None		7	6	0
Vegans Gone Wild	7/11/14	6/26/14			7/15/14	1	None		8	3	0
Soul Tap Yoga	10/3/14	9/24/14			4/11/15	1	None		9	6	0
NYC Tennis Match-up	9/20/14	8/7/14			4/11/15	1	None		1	8	0
Animation, Film, 3D, Technology - New York Art & Tech Group	9/29/14	9/1/14			4/11/15	1	None		1	9	0
Brooklyn loudspeaker design group	7/25/14	6/13/14			9/25/14	1	None				0
Tri-State (NY/NJ/CT) E-Bike Riders	10/3/14	9/21/14	10/18/14		11/15/14	1	10/18/14	2	3	3	1
New Canaan Town Band	6/18/14	5/30/14	6/4/14		9/25/14	1	6/25/14	2	3	3	1
Readup: Meetup's Book Club and Book-swap	6/4/14	4/30/14	5/20/14		7/15/14	1	5/20/14	2	4	4	1
Watch collectors an in house movement	10/3/14	9/22/14	PRIVAT E		4/11/15	1	Private		4	4	1
Woodside Arts and Craft Meetup	6/3/14	5/12/14	7/5/14		7/16/14	1	7/5/14	4	4	5	1

New York activism Meetup	6/18/14	5/24/14	6/2/14		9/25/14	1	6/2/14	2	5	1
The Backflip Brothers	6/13/14	5/24/14	5/31/14		9/25/14	1	5/31/14	3	6	1
My Different Path Running Group	6/18/14	6/3/14			9/25/14	1	9/14/14	2	6	1
Central NJ Nerd Squad - Boys Playgroup	8/27/14	8/10/14	9/28/15		4/11/15	1	9/28/15	4	7	1
H+Forum	6/10/14	5/15/14			7/16/14	1	Private		8	1
Monmouth County Bakers and Treat Makers	6/4/14	5/5/14	6/30/14		7/16/14	1	6/30/14	3	8	1
Primal Movement	6/6/14	4/27/14	5/10/14		7/10/14	1	5/10/14	2	9	1
Nassau County 2up Motorcyle Group	9/25/14	6/22/14	7/25/14		8/29/14	1	7/25/14	2	9	1
Black Gay Men Running Club	11/6/14	10/14/14	10/25/14		2/18/15	1	10/25/14	3	9	1
BYOC Lan Party/Convention	9/20/14	6/27/14	7/12/14		8/29/14	1	7/12/14	3	0	1
Brooklyn Kids in Nature	7/25/14	6/21/14	10/26/14		8/29/14	1	10/26/14	1	1	1
Westchester Indie and Experimental Music	6/2/14	5/17/14			9/25/14	1	6/17/14	3	3	1
The Brooklyn Hammond Organ Project	10/3/14	9/18/14	9/25/14		4/11/15	1	9/25/14	2	3	1
Beyond The Book	10/5/14	9/9/14	10/25/14		11/16/14	1	10/25/14	3	4	1
Tri-State Area Golfers	6/16/14	5/29/14	8/4/14		9/25/14	1	8/4/14	2	4	1
Flatbush Writers Workshop	6/10/14	4/22/14	4/27/14		7/10/14	1	4/27/14	2	4	1
Valley Cottage Outdoor Volleyball Meetup	7/14/14	6/24/14			7/15/14	1	10/12/14	3	4	1
Bay Ridge Grass Volleyball Meetup	5/30/14	5/13/14	5/31/14		7/16/14	1	5/31/14	3	4	1
Creative Accountability Walking Group in Jersey City	6/9/14	5/6/14	5/12/14		7/16/14	1	5/12/14	4	4	1
Stamford Sorcery Meetup	11/10/14	10/17/14	11/9/14		2/18/15	1	1/9/14	1	1	1
West Coast Swing in New York City	6/2/14	5/6/14	5/18/14		7/16/14	1	5/18/14	6	6	1
Staten Island Around The World Gourmet Culinary Adventures	10/3/14	9/9/14	10/18/14		4/11/15	1	10/18/14	9	9	1
Central Jersey Algorithms	11/11/14	10/7/14	11/12/14		2/11/15	1	11/12/14	6	2	1
Brooklyn Weight Loss Support Meetup	9/20/14	6/17/14	7/27/14		8/29/14	1	7/27/14	1	2	1
Beach MahJongg	8/15/14	7/30/14	8/14/14		2/18/15	1	8/14/14	4	3	1
Develop(NJ)	6/9/14	5/2/14	5/27/14		7/15/14	1	5/27/14	5	4	1
Indoor Coastal Soccer Open Play	6/19/14	5/19/14	6/4/14		9/25/14	1	None		2	1
North Central Park Running Club	10/5/14	9/3/14	9/9/14		4/11/15	1	9/9/14	2	5	1
Go! Girl Adventure Travel Group	6/2/14	4/21/14	5/7/14		7/10/14	1	5/7/14	1	2	1
NYC Personal Growth Book Club	6/10/14	5/4/14	5/25/14		7/16/14	1	5/25/14	2	6	1
Ski Racers of NYC	8/20/14	7/21/14	9/10/14		4/11/15	1	9/10/14	5	6	1
Flemington Area Whine and Dine, 40+	6/18/14	5/30/14	6/12/14		9/25/14	1	6/12/14	3	7	1
Running with your Friends!	7/12/14	6/17/14	7/2/14		7/15/14	1	7/2/14	3	8	1
Creativity and Conversation Meetup	6/18/14	5/12/14	6/25/14		7/16/14	1	6/25/14	6	9	1

STYLISH Ladies' Meetup	7/15/14	6/27/14	8/4/14		8/15/14	1	8/4/14	1	3	0	1
Northeast Canyoneering	10/5/14	8/28/14	PRIVAT E		4/11/15	1	Priva te		3	4	1
Behavioral Economics Reading & Discussion Group @ NYC	6/5/14	5/12/14	6/8/14		7/16/14	1	6/8/14	4	3	5	1
Comedic Improv Karaoke & Stand-Up Comedy Practice Group	11/11/14	10/6/14	10/17/14		2/11/15	1	10/17/14	5	3	5	1
New York Poetry Writing Meetup.	6/19/14	5/26/14	6/19/14		9/25/14	1	6/19/14	1	3	7	1
Comix and liquor: "spirited" nerds unite!	6/1/14	4/24/14	4/30/14		7/10/14	1	4/30/14	6	3	8	1
Brooklyn Beachbody Challenge Group	6/12/14	5/29/14	6/14/14		9/25/14	1	6/14/14	3	4	1	1
Tri-State Kayak fishing Meetup	10/3/14	9/8/14	3/27/15		4/11/15	1	3/27/15	2	4	3	1
Psychology & Experiential Learning Book Club	6/2/14	5/2/14	6/22/14		7/15/14	1	6/22/14	5	4	6	1
Quintal Drummers Collective, NYC	9/19/14	7/28/14	8/2/14		4/11/15	1	8/2/14	5	4	6	1
Ramapo Motorcycle Club	11/10/14	10/3/14	10/12/14		2/18/15	1	10/12/14	3	4	7	1
coffee clutch of somerset county	7/13/14	6/26/14	7/11/14		7/15/14	1	7/11/14	7	4	7	1
NYC Outdoor Athletic Yoga	6/17/14	5/18/14	6/15/14		9/25/14	1	6/15/14	1	4	8	1
Gotham Sketch Comedy	6/7/14	4/30/14	5/17/14		7/15/14	1	5/17/14	2	5	4	1
NYC DAW MUSIC PRODUCTION	7/24/14	6/26/14			8/29/14	1	9/27/14	1	5	7	1
Westchester Trail Runners	7/14/14	6/23/14	7/13/14		7/15/14	1	7/13/14	5	6	6	1
Street Handball NYC!	6/2/14	5/6/14	5/11/14		7/16/14	1	5/11/14	1	6	6	1
The Best of Times Reunion	7/12/14	6/12/14	8/22/14		9/25/14	1	8/22/14	2	6	8	1
Working out in the City	7/10/14	6/19/14	7/12/14		7/15/14	1	7/12/14	8	7	1	1
CinemaForce - NYC Blockbuster Movie Group	10/5/14	9/18/14	10/10/14		4/11/15	1	10/10/14	0	7	3	1
Pairing Wine & People: NYC	11/11/14	10/10/14	11/9/14		2/11/15	1	11/10/14	2	7	9	1
New York Live Jazz Meetup	9/25/14	8/11/14	8/31/14		4/11/15	1	8/31/14	4	8	4	1
Memoir Writing	11/12/14	10/31/14	11/19/14		2/11/15	1	11/19/14	1	9	6	1
NYC Crochet Crew	10/5/14	8/31/14	PRIVAT E		4/11/15	1	Priva te		9	6	1
Writers' Gym for Playwrights and Screenwriters	11/10/14	10/31/14	11/12/14		2/18/15	1	11/12/14	1	1	2	1
Extreme Sports and Adventures	11/12/14	10/3/14	10/19/14		2/11/15	1	10/19/14	2	6	5	1
Foodies in New Jersey	9/27/14	7/25/14	8/28/14		11/15/14	1	8/28/14	4	7	9	1
Outdoor Art Adventures	11/11/14	10/3/14	10/18/14		2/18/15	1	10/18/14	3	2	0	1
VRLab NYC - Oculus Rift & Virtual Reality	7/14/14	6/16/14	7/9/14		7/15/14	1	7/9/14	1	1	2	1
NY Spades Buddies	6/2/14	5/16/14	5/21/14		9/25/14	1	8/2/14	2	5	2	2
Brooklyn Boxer Playgroup	6/5/14	4/23/14	6/1/14		7/10/14	1	6/1/14	2	8	2	2

Bethpage Black U.S. Open Golfers Group	6/5/14	4/22/14	5/3/14		7/10/14	1	7/6/14	4	4	9	2
Central Jersey Pug Lovers & Friends	8/27/14	7/19/14	8/9/14		8/29/14	1	9/6/14	4	2	1	2
NYC Socionics Meetup	7/25/14	7/1/14	7/29/14		9/28/14	1	8/15/14		6	3	2
And a 5, 6, 7, 8! - Dance NYC	6/3/14	5/17/14			9/25/14	1	6/10/14		6	3	2
The Vesparados	8/12/14	8/1/14	8/1/14		9/28/14	1	9/28/14		2	4	2
Fat to Skinny Vegans/Vegetarians. Let's Get Healthier!	6/10/14	5/19/14			9/25/14	1				1	2
Reading Revolutions Book Group	6/6/14	5/3/14	5/7/14		7/15/14	1	5/7/14		2	5	2
Park Slope Windsor Terrace Artists	10/4/14	8/30/14			8/29/14	1	11/9/14		3	7	2
Toquemos Rock En Español - Let's Play Spanish Rock	6/16/14	5/23/14	8/28/14		9/25/14	1	9/13/14		5	7	2
Healthy Hour	6/10/14	5/5/14	5/21/14		7/16/14	1	6/20/14		5	8	2
Bushwick Writers Workshop	6/9/14	4/24/14	5/11/14		7/10/14	1	6/14/14		7	9	2
Meet Eat Critique! (Northern New Jersey)	7/23/14	6/10/14	7/11/14		9/25/14	1	7/31/14		3	0	2
Hoboken Foot/Floor Hockey	5/29/14	5/11/14			7/16/14	1	6/22/14		2	1	2
Bushwick Chihuahua Play Group	11/11/14	10/27/14	12/7/14		2/11/15	1	12/7/14		7	1	2
Bayonne Running Meetup - Weekly Gatherings at HC Park	11/6/14	10/27/14	11/8/14		2/18/15	1	1/15/14		3	1	2
Indoor Volleyball (Walleyball)	6/6/14	4/28/14	6/3/14		7/10/14	1	6/3/14		4	3	2
Ossining Dance and Opera Performing Arts Aficionados Meetup	7/16/14	6/10/14	6/20/14		9/25/14	1	6/26/14		5	5	2
NYC 20s/30s Small Group Activities	6/6/14	5/15/14	5/25/14		7/16/14	1	6/20/14		4	7	2
This Month In The DC Universe	8/20/14	8/5/14	8/30/14		9/28/14	1	10/4/14		4	9	2
Draw It Out! Not your grandma's drink and draw!	6/9/14	5/5/14	5/7/14		7/16/14	1	6/9/14		5	9	2
NYC French Novels Book Club	6/6/14	4/29/14	6/8/14		7/15/14	1	7/6/14		6	0	2
Gowanus Makers and Hackers	6/19/14	6/3/14	6/24/14		9/25/14	1	8/6/14		6	1	2
Greenwich Library Foreign Affairs Book Club	10/16/14	9/5/14	9/16/14		11/16/14	1	10/21/14		6	3	2
New York City Street Hypnosis Meetup/Training/Performance	7/30/14	7/5/14	7/18/14		2/11/15	1	8/8/14		4	3	2
West New York/Edgewater Potluck Book (and Film) Club	11/6/14	10/19/14			2/18/15	1	Private			3	2
Manhattan Parks Meetup	8/1/14	7/2/14	8/19/14		9/28/14	1	9/7/14		5	5	2
New York City Comedy & Cocktails	6/4/14	4/29/14	5/16/14		7/10/14	1	6/13/14		5	5	2
Fairfield County Film Makers	7/13/14	6/24/14	7/9/14		7/15/14	1	8/14/14		9	5	2
Howell Movie Hounds	6/7/14	5/5/14	5/15/14		7/16/14	1	6/20/14		8	6	2
All Dogs Welcome Dog Walking. Campgaw Mahwah NJ	6/6/14	4/21/14	5/18/14		7/10/14	1	6/22/14		1	4	2
Tennis and New Friends at Tenafly	7/12/14	6/23/14	7/19/14		7/15/14	1	7/27/14		2	1	2
Bollywood Movie Buffs	6/5/14	4/27/14	6/6/14		7/10/14	1	6/6/14		6	2	2
Darien, CT Acoustic Guitar Meetup	6/9/14	4/28/14	5/15/14		7/10/14	1	6/12/14		0	3	2
Hastings Hootenany Old Time Music Meetup	11/6/14	10/10/14	11/22/14		2/18/15	1	12/2/14		7	5	2

Are you serious? Brooklyn Writers	11/6/14	10/8/14	10/30/14		2/18/15	1	11/6/14	2	4	7	2
Adults Reading Children's Books	8/15/14	7/16/14	8/16/14		9/28/14	1	9/20/14	6	4	8	2
Garden State Indie Film Collective	7/13/14	7/6/14	7/27/14		2/11/15	1	8/29/14	9	4	8	2
Greater New York City Book Discussion/Foodie Club	9/25/14	6/11/14	8/16/14		9/25/14	1	9/13/14	4	5	0	2
Tea & Poetry	11/10/14	10/21/14	11/8/14		2/18/15	1	1/24/15	1	5	0	2
Prospect Park Stair Climbers	6/4/14	5/18/14	5/25/14		9/25/14	1	7/2/14	2	5	1	2
Bushwick Group: board games, poker, weekend trips etc...	11/11/14	10/8/14	10/26/14		2/11/15	1	11/6/14	4	5	4	2
Central Jersey LGBT Geeks	8/15/14	8/2/14	Private		11/15/14	1			5	5	2
Running For Beer	10/3/14	9/16/14	9/22/14		4/11/15	1	10/12/14	3	5	7	2
NYC Russian Novels Book Club	6/6/14	4/27/14	6/2/14		7/10/14	1	7/7/14	7	6	4	2
Ladies With A Purpose	6/10/14	5/19/14			9/25/14	1	8/3/14	3	6	7	2
Huntington Reading Meetup Group: at Book Revue. Book: Walden	11/12/14	10/25/14	11/17/14		2/11/15	1	1/19/15	9	7	1	2
Dinner with Developers	6/9/14	5/3/14	5/14/14		7/15/14	1	6/19/14	6	7	3	2
LGBTQ Book Club of New Jersey	10/8/14	9/2/14	10/18/14		11/15/14	1	11/15/14	1	7	6	2
New York Classical Figure Drawing and Painting Meetup	5/28/14	5/17/14	5/21/14		9/25/14	1	5/28/14	7	7	7	2
Morris County Soccer Meetup	6/2/14	4/30/14	7/1/14		7/15/14	1	7/8/14	2	8	1	2
Queer Book Club at Book Culture	7/21/14	7/9/14	7/27/14		9/28/14	1	8/31/14	1	8	4	2
Mid Life Music Makers	6/2/14	5/16/14	5/23/14		9/25/14	1	7/9/14	4	8	5	2
Northeast Gay Men's Explorers Club (a secret society)	11/12/14	10/31/14	11/18/14		2/11/15	1	12/13/14	1	9	9	2
Golf Lovers in the Met Area	6/2/14	4/23/14	5/6/14		7/10/14	1	6/7/14	1	0	5	2
Ladies Tea	10/8/14	9/22/14	10/19/14		11/15/14	1	11/9/14	1	0	6	2
The App Club	10/3/14	9/18/14	10/16/14		4/11/15	1	2/4/15	2	1	3	2
Bushwick / Ridgewood Photography Group	11/11/14	10/3/14	10/16/14		2/18/15	1	11/9/14	8	5	0	2
Fine Art on Billionaires' Row	10/16/14	9/4/14	9/6/14		2/18/15	1	9/30/14	4	4	0	2
Stamford Tea Meetup	DELETED	8/1/14			2/18/15	2	8/1/14	4	5		2
Young Retirees Book Club	5/27/14	4/23/14			7/10/14	1	7/9/14	4	2	9	3
Wanaque Writers; For those that know the love of writing	6/3/14	4/25/14	5/1/14		7/10/14	1	5/29/14	3	1	0	3
The Alzabo Songwriters Circle - Woodhaven NY	8/25/14	7/18/14	7/29/14		8/29/14	1	8/12/14	3	1	0	3
Japanese Soccer Event in NYC	6/19/14	5/28/14	6/13/14		9/25/14	1	6/24/14	2	1	0	3
Morris Plains Morning Meditation	8/1/14	6/23/14	7/9/14		8/29/14	1	9/10/14	2	1	1	3
Comedy in Greenpoint	6/7/14	4/26/14	6/5/14		7/10/14	1	6/5/14	4	4	2	3

MahJongg lady players in Valley Stream area	11/12/14	10/6/14	10/22/14		2/11/15	1	11/5/14	2	1	2	3
Brooklyn Bridge Walk and Weight Loss Group	6/6/14	5/11/14			7/16/14	1	Private		1	3	3
ScrappyGamerDDS Game Night	10/3/14	9/8/14	10/10/14		11/16/14	1	11/14/14	2	1	4	3
NJ Jazz Network	11/12/14	10/19/14	11/13/14		2/11/15	1	12/18/14	5	1	4	3
Geek Mommies of Princeton	6/2/14	5/12/14	5/22/14		7/16/14	1	6/18/14	4	1	5	3
Central Jersey Hula Hoopers Meetup	7/25/14	6/30/14	9/16/14		8/29/14	1	10/5/14	3	1	6	3
LIVE.LOVE.DANCE. MeetUp	6/20/14	5/28/14	6/1/14		9/25/14	1	6/1/14	4	1	6	3
Live French/Jazz music in NYC	6/20/14	5/29/14	6/15/14		9/25/14	1	9/1/14	4	1	6	3
Kensington Brooklyn Knit & Crochet Social Group	6/2/14	5/14/14	6/10/14		7/16/14	1	7/8/14	3	1	7	3
Brooklyn Advanced Fiction Writers' Workshop	11/10/14	10/15/14	Private		2/18/15	1			1	7	3
Let's speak French together!	6/20/14	5/27/14	6/7/14		9/25/14	1	9/13/14	4	2	0	3
Walking & Hiking in Bed-Stuy	5/28/14	5/16/14			7/16/14	1	6/22/14	2	1	2	3
Astoria Improv Meetup	6/11/14	5/29/14	6/21/14		9/25/14	1	8/19/14	5	2	1	3
Allie's Artistic Wonderland	6/3/14	5/7/14	5/17/14		7/16/14	1	6/7/14	4	2	2	3
Hoboken Trivia	10/16/14	9/3/14	9/10/15		2/18/15	1	11/26/14	2	2	2	3
Uptown Prenatal Recreation Group	7/14/14	6/14/14	7/6/14		9/25/14	1	7/30/14	3	2	3	3
New Toastmaster Club chartering in Somerset NJ	6/18/14	6/2/14	6/12/14		9/25/14	1	8/28/14	6	2	3	3
BARK BROOKLYN DOGGIE MEET-UP	8/26/14	8/6/14	8/16/14		9/28/14	1	11/8/14	2	2	7	3
Brooklyn Beginner Weekly Drawing Study Group (100% FREE)	6/5/14	5/13/14	6/1/14		7/16/14	1	6/8/14	4	2	9	3
Dancing for Dancers NYC	6/9/14	4/29/14	Private		7/15/14	1	Private		3	0	3
Fast and Fabulous Cycling Club	11/12/14	10/25/14	11/9/14		2/11/15	1	12/13/14	3	3	0	3
Astoria Creative Photography	6/4/14	4/22/14	5/11/14		7/10/14	1	6/7/14	4	2	4	3
NYC, Westchester and near by area Social Golf Club Meetup	11/11/14	10/25/14	11/9/14		2/11/15	1	11/9/14	3	3	4	3
Korean Movie & Drama & Music (KMMD)	6/17/14	5/31/14			9/25/14	1	7/19/14	2	0	4	3
The Under Pressure Writers Workshop	8/20/14	7/25/14	8/16/14		8/16/14	1	2/28/15	2	5	0	3
Books on a Blanket Book Club Meetup Group	6/11/14	5/29/14	6/29/14		9/25/14	1	8/24/14	7	5	1	3
Nature as Spiritual Practice	6/10/14	4/23/14	5/11/14		7/10/14	1	6/15/14	1	5	5	3
YOGA IN ASTORIA PARK!	5/27/14	5/5/14	5/11/14		7/16/14	1	5/25/14	2	5	9	3
Karaoke with Friends	11/6/14	10/13/14	10/18/14		2/18/15	1	11/14/14	5	1	6	3
NYC Dog Agility Enthusiasts	9/21/14	7/26/14	9/13/14		11/15/14	1	10/19/14	0	2	6	3
Studio Sessions	6/4/14	5/8/14	5/22/14		7/16/14	1	5/22/14	2	6	4	3
Central Jersey Lesbian Adventures	11/11/14	10/7/14	10/26/14		2/11/15	1	1/24/15	6	6	9	3
Park Slope Songwriters Circle	7/16/14	7/3/14	7/16/14		2/11/15	1	10/8/14	3	7	6	3
North Jersey Geocaching	8/16/14	8/1/14	9/7/14		11/15/14	1	11/15/14	8	8	5	3

NY Too-Good-For-Regular-Karaoke Singers (TGFRK)	6/10/14	4/21/14	5/2/14		7/10/14	1	6/24/14	9	8	8	3
Life Is Motion	10/16/14	9/3/14	9/13/14		2/18/15	1	11/8/14	8	9	0	3
The Spanish Cuisine Meetup Group	7/15/14	6/27/14	7/14/14		8/15/14	1	10/8/14	5	9	9	3
The Westchester Women's Dinner Meetup Group	7/15/14	6/9/14	Private		9/25/14	1			1	0	3
New York Aspiring Pro Photographers & Portfolio Reviews	6/18/14	5/28/14	6/1/14		9/25/14	1	6/11/14	1	0	9	3
New York Food Explorers	7/25/14	6/29/14	7/10/14		8/29/14	1	8/9/14	3	5	7	3
Hoboken Bar & Books	11/12/14	10/18/14	11/19/14		2/11/15	1	1/21/15	3	2	6	3
NYC Historic Real Estate Tours	11/12/14	10/17/14	10/27/14		2/11/15	1	11/5/14	2	4	0	3
Summer Social Read-Up	7/15/14	6/11/14	7/9/14		9/25/14	1	8/13/14	2	5	4	
The Beer Guys Organize fun runs for charity & have a beer!	6/5/14	4/22/14	5/10/14		7/10/14	1	7/6/14	1	8	4	
Chess in the Bergen County (Paramus Area)	8/27/14	7/17/14	8/15/14		11/15/14	1	9/26/14	2	8	4	
Sportomato	7/10/14	6/30/14	7/1/14		7/15/14	1	7/31/14	3	1	0	4
Knit and Nibble on Staten Island	10/8/14	9/5/14	10/13/14		11/16/14	1	10/27/14	3	1	1	4
Brooklyn Knit Up	6/13/14	5/25/14	6/6/14		9/25/14	1	9/5/14	4	5	8	4
Denville Ultimate Frisbee Meetup	7/13/14	6/24/14	8/5/14		9/28/14	1	8/5/14	4	4	4	4
Prospect Park Drawing for the Unartistic Meetup	9/19/14	8/4/14	8/24/14		4/11/15	1	10/26/15	5	7	4	
Ocean County Zumba	11/12/14	10/5/14	10/31/14		2/11/15	1	11/22/14	3	3	4	
New York Vocal Gym Meetup - Let's work out our voices!	6/2/14	4/22/14	5/17/14		7/10/14	1	6/28/14	3	4	4	
NHL Hockey Meetup	11/12/14	10/16/14	10/19/14		2/11/15	1	10/27/14	3	3	4	
NYC Yoga Meetup	9/20/14	7/15/14	7/27/14		4/11/15	1	8/15/14	3	4	4	
Thrills & Chills	8/20/14	7/20/14	8/24/14		4/11/15	1	3/14/15	3	4	4	
Golf Club of NJ	10/16/14	9/16/14	10/11/14		2/18/15	1	11/30/14	3	4	4	
North Brooklyn Girls Indie and Alternative Music Meetup	11/12/14	10/12/14	10/21/14		2/11/15	1	11/14/14	8	5	0	4
NYC Outdoor Fun & Adventure Travel for Singles	6/10/14	5/10/14	5/21/14		7/16/14	1	6/27/14	2	5	6	4
Queens Scrapbooking / Project Life Meetup	7/16/14	6/23/14	7/26/14		8/15/14	1	10/25/14	1	5	7	4
North Jersey Geek Appreciation Club	11/12/14	10/11/14	10/16/14		2/11/15	1	11/3/14	8	5	8	4
Bar None Calisthenics (Central Park, Upper West Side)	5/30/14	5/5/14	5/15/14		7/16/14	1	5/29/14	3	6	1	4
Stuyvesant Town Pick Up Soccer	10/3/14	9/2/14	9/12/14		4/11/15	1	2/27/15	3	7	2	4
Free Salsa, Merengue & Bachata After Work Meetup	11/12/14	10/11/14	10/17/14		2/11/15	1	11/7/14	3	7	5	4
TALE: NYC Storytelling	9/16/14	7/18/14	7/23/14		8/29/14	1	9/26/14	8	8	4	
Bed Stuy - Drink or Dine! Do or Die!	6/5/14	5/17/14			9/25/14	1	6/12/14	6	8	2	4
The New York Women of Color	6/13/14	5/31/14	6/1/14		9/25/14	1	9/13/14	2	8	4	

Fitness Meetup							14		3	
Stamford Co-ed Adult Flag Football Meetup	10/3/14	9/8/14	10/5/14		4/11/15	1	3/12/15	3	8	4
Westchester BYOB Wine Tasting Group	7/10/14	7/3/14	7/15/14		9/28/14	1	9/6/14	1	8	4
NYC Photo Tours	8/16/14	7/29/14	8/14/14		9/28/14	1	9/17/14	9	9	4
Harlem's Black Culture & Empowerment Book Club	7/26/14	6/23/14	8/15/14		8/29/14	1	11/13/14	1	0	4
NYC Golfers in Technology	9/25/14	8/7/14	8/15/14		4/11/15	1	10/11/14	3	1	4
Smash Club New York	11/10/14	10/8/14	11/2/14		2/18/15	1	1/17/15	1	1	4
International Books Reading Group	10/16/14	9/17/14	10/7/14		2/18/15	1	1/21/15	8	5	4
New York Black Cinema Night	11/15/14	6-Oct	11/12/14		2/11/15	1	1/28/15	1	7	4
Led Zeppelin / KISS / Pink Floyd / Etc. Tribute Bands	10/8/14	8/31/14			4/11/15	1	Private		2	4
Street Photography NYC	9/16/14	8/5/14	8/17/14		9/28/14	1	11/1/14	1	5	4
Hiking Meetup Using Metro North harmonica club: playing, jamming, and learning	10/16/14	8/31/14	9/7/14		2/18/15	1	11/25/14	2	1	4
Injustice, Def Jam NY, MK2, Street fighters FIGHT GROUP! NYC	6/7/14	5/6/14	6/18/14		7/16/14	1	7/2/14	4	2	5
Write Way Group	6/17/14	5/29/14	8/4/14		9/25/14	1	9/15/14	4	1	5
Story Time With Wayne @ Ceol, 191 Smith Street, Brooklyn	6/5/14	4/30/14	5/7/14		7/15/14	1	7/2/14	4	6	5
South Brunswick Tennis Group	9/16/14	8/5/14	8/7/14		8/29/14	1	9/4/14	4	3	5
Love a Good Story Workshop	11/10/14	10/10/14	10/12/14		2/18/15	1	11/9/14	6	2	5
CUMBIANY	6/7/14	5/20/14	6/2/14		9/25/14	1	7/28/14	3	2	5
Bryant Park Spades After Work Meetup	6/9/14	5/8/14	5/16/14		7/16/14	1	7/3/14	4	5	5
Rivertown Friends	8/15/14	7/31/14	8/4/14		2/18/15	1	11/17/14	2	5	5
Brooklyn Social Ballroom Dancing Meetup	6/17/14	5/21/14	6/7/14		9/25/14	1	9/7/14	4	4	5
Middlesex-Dunellen Walking Group	6/6/14	5/10/14	5/16/14		7/16/14	1	6/27/14	2	3	5
Genre Book Club (Sci-Fi, Fantasy, Horror)	6/17/14	5/22/14	6/4/14		9/25/14	1	6/25/14	3	7	5
Aspiring Writers of Long Island	7/13/14	6/16/14	6/28/14		7/15/14	1	10/25/14	7	9	5
Williamsburg basic sewing skills for bikers	7/10/14	7/1/14	7/23/14		7/15/14	1	10/2/14	6	2	5
Westchester Amateur Musicians Hang-out	8/12/14	7/16/14	7/18/14		2/11/15	1	2/9/15	5	3	5
Kung Pow! The Martial Arts and Extreme Action Movie Group	10/3/14	9/20/14	10/5/14		4/11/15	1	2/8/15	5	9	5
Outspoken Winos Book Club	6/17/14	5/30/14	6/13/14		9/25/14	1	8/16/14	8	7	5
New York English/French Speakers Meetup	7/21/14	7/1/14	7/19/14		8/29/14	1			8	5
	10/6/14	9/5/14	10/5/14		11/16/14	1	11/16/14	1	9	5

Acoustic Swing and Gypsy Jazz Jam	9/28/14	9/1/14	9/14/14		4/11/15	1	3/11/15	5	10	4	5
Lights...Cameras...ACTION!	7/23/14	6/16/14	7/6/14		8/29/14	1	10/5/14	1	10	8	5
I NEED TO LAUGH!	6/6/14	4/28/14	5/9/14		7/10/14	1	6/27/14	8	16	2	5
Beginners Photography Creative Tips - Astoria/LIC	11/10/14	10/19/14	11/9/14		2/18/15	1	1/24/15	1	17	6	5
New York City Writers Critique Group	11/15/14	10/3/14	11/1/14		2/11/15	1	2/7/15	1	0	2	5
New York Night Photographers	10/15/14	9/13/14	9/27/14		4/11/15	1	2/28/15	1	4	0	5
NYC Area VeloPaddling, Equal Parts Cycling & SUP on Water	8/16/14	7/14/14	8/4/14		9/28/14	1	8/4/14	2	1	1	6
Join The Fun North Jersey Fiction Writers Group, He Marketed	7/25/14	6/14/14	7/10/14		11/15/14	1	8/7/14	4	4	6	6
Morristown Labrador Retriever Meetup	6/6/14	4/24/14	4/30/14		7/10/14	1	6/21/14	3	8	1	6
Twilight Hours Golf Group	6/13/14	6/5/14	7/1/14		9/25/14	1	9/9/14	4	3	2	6
JAG: Jersey Association of Gamers	6/19/14	6/4/14	6/21/14		9/25/14	1	9/7/14	4	1	9	6
Barn-B-Q Trail Run, Hike, & Party: Watchung Reservation 7/26	8/15/14	6/29/14	7/26/14		8/29/14	1	9/15/14	2	3	3	6
Productive Lifestyle Ladies	6/4/14	5/9/14	5/17/14		7/16/14	1	6/29/14	3	9	3	6
Huntington Co-Ed Adult Soccer Meetup	6/6/14	4/28/14	5/3/14		7/10/14	1	6/23/14	2	4	4	6
Lockpickers of New Jersey	9/19/14	7/21/14	8/13/14		4/11/15	1	4/7/15	5	5	5	6
Clicker Canines Cranford	11/11/14	10/31/14	11/23/14		2/11/15	1	2/8/15	5	7	6	6
Kayaking and boogie boarding for Lesbian, Bi, & Trans women	6/17/14	5/30/14	6/7/14		9/25/14	1	6/26/14	2	4	8	6
Long Island English Premier League/Euro Leagues Meetup	9/27/14	7/14/14	8/16/14		4/11/15	1	11/8/14	3	5	3	6
New York CitiBike Meetup - Tour de NYC ! #nycCitiBike	7/27/14	6/12/14	7/6/14		9/25/14	1	9/26/14	2	6	2	6
Live Music & Friends (Clinton area)	11/12/14	10/8/14	10/16/14		2/11/15	1	1/10/15	1	9	0	6
Brick Oven Brooklyn	11/10/14	10/22/14	10/26/14		2/18/15	1	1/25/15	6	1	4	6
Women's NYC-Centric Book Club Meetup	8/12/14	7/31/14			2/18/15	1	2/5/15	9	1	3	6
Lest create an Animation Studio in New York City	7/25/14	7/7/14			2/11/15	1	1/15/15		5	5	6
New York Ladies Love Jazz Meetup	11/15/14	10/28/14	11/19/14		2/11/15	1	1/13/15	9	1	8	6
NYC Startup Running Group	11/11/14	10/28/14	11/5/14		2/11/15	1	11/23/14	2	4	2	6
Hudson Valley Pickleball	6/5/14	4/22/14	5/4/14		7/10/14	1	6/29/14	3	6	7	
Bay Ridge Brooklyn Walk/Jog	8/28/14	8/4/14	8/13/14		9/28/14	1	9/23/14	2	1	4	7
Flemington Writing Meetup	6/18/14	5/29/14	6/11/14		9/25/14	1	9/10/14	5	2	3	7
I Love Classic Music Videos	9/25/14	6/9/14	6/20/14		9/25/14	1	9/19/14	4	2	7	

							14	5	9	
Sabermetrics	9/16/14	7/24/14	8/13/14		4/11/15	1	3/19/15	2	4	7
Bucket list Travel for people of color	7/25/14	6/25/14	7/5/14		8/29/14	1	9/16/14	4	5	7
Northern NJ Wine Makers Club	10/5/14	9/7/14	9/28/14		4/11/15	1	2/11/15	9	5	7
EARLY RISERS BASKETBALL!	11/11/14	10/15/14	10/21/14		2/11/15	1	11/6/14	1	5	7
Anomie Larp NYC (Live Action Roleplaying)	6/3/14	4/27/14	5/3/14		7/10/14	1	7/5/14	2	9	7
Transform Your Body Meetup	7/16/14	6/16/14	6/22/14		8/15/14	1	11/9/14	3	6	7
The NYC Japanese Culture Group	6/13/14	5/28/14	6/8/14		9/25/14	1	9/6/14	1	7	7
Cafe Theatre New York	6/9/14	5/1/14	5/17/14		7/15/14	1	6/28/14	6	1	7
Ancestral Medicine Journey	6/5/14	5/12/14	5/24/14		7/16/14	1	Private		1	7
Camera of the Month Club	10/5/14	9/25/14	9/1/31		4/11/15	1	3/31/15	4	1	7
UWS Books & Booze (for those 28-48)	8/12/14	7/22/14	8/18/14		2/18/15	1	2/18/15	6	3	7
NJ Social Justice Book Club	9/25/14	8/5/14	PRIVATE		4/11/15	1	Private		1	7
Erotic Lifestyle NYC	6/19/14	5/28/14	6/13/14		9/25/14	1	9/26/14	2	9	7
New York Pick-Up Soccer Meetup at Nike Field	9/25/14	8/2/14	8/10/14		4/11/15	1	8/31/14	4	2	7
North Jersey Chess	10/5/14	9/11/14	9/1/31		11/16/14	1	11/3/14	2	1	8
NYC Grind Lifestyle - Fitness, Wellness, Business	6/10/14	5/2/14	5/17/14		7/15/14	1	6/30/14	1	7	8
Maplewood/South Orange Mindfulness Meditation Group	6/20/14	5/13/14	6/1/14		7/16/14	1	7/13/14	1	3	8
Queens Blue Macaws Soccer Club (Forest Park / Victory Field)	10/3/14	9/26/14	10/2/14		4/11/15	1	11/2/14	2	4	8
Brooklyn Roller Skating School	8/28/14	7/25/14	8/3/14		4/11/15	1	9/28/15	4	9	8
All breeds of dogs 40 lbs + Westchester/Fairfield hiking	6/11/14	5/23/14	5/28/14		9/25/14	1	9/14/14	6	5	8
NYC Carpe Diem	6/10/14	4/26/14	4/26/14		7/10/14	1	7/5/14	1	6	8
Central NJ Makeup Junkies	11/11/14	10/22/14	11/1/14		2/11/15	1	2/8/15	5	6	8
Explorers Dive Club of NJ	10/15/14	9/7/14	10/14/14		4/11/15	1	1/25/15	4	6	8
Crafty in Yonkers	8/27/14	7/28/14	8/23/14		8/23/14	1	3/29/15	6	7	8
Fellowship of the Tortoise Hikers	11/6/14	10/3/14			2/18/15	1	Private		1	8
Blizzplanet - NYC Hearthstone Fireside	6/12/14	5/24/14	6/14/14		9/25/14	1	9/13/14	1	7	8
Bridgewater Cycling and Fitness	7/25/14	7/7/14	7/23/14		2/11/15	1	11/9/14		1	8
Art in Asbury Park Meetup	11/6/14	10/6/14	10/17/14		2/18/15	1	2/14/15	2	8	8

Let's Make Beautiful Jewelry	11/12/14	10/14/14	Private		2/11/15	1	Private				8
Let's Play Bayonne!	6/7/14	5/5/14	Private		7/15/14	1	Private			5	9
Rockland F.I.T.	6/4/14	4/29/14	5/10/14		7/10/14	1	7/5/14	2	8	9	
Oakland Gardens Canasta Card Game Meetup	11/11/14	10/31/14	12/5/14		2/11/15	1	1/30/15	3	1	4	9
Pearl River Table Tennis Club	10/4/14	9/9/14	9/29/14		11/16/14	1	11/10/14	6	2	7	9
Brooklyn Tennis Meetup	6/4/14	5/10/14	5/18/14		7/16/14	1	7/13/14	4	3	9	9
NYC is Watching the World Cup!!!	7/25/14	6/25/14	6/28/14		8/29/14	1	7/13/14	8	4	1	9
Food + Fotography Social	10/16/14	9/14/14	10/12/14		2/18/15	1	Private		4	7	9
Prospect Park Improv	7/26/14	6/29/14	7/13/14		9/28/14	1	9/14/14	7	6	8	9
Montclair Slowpoke Runners Group	11/12/14	10/6/14	10/11/14		2/11/15	1	12/6/14	2	8	2	9
Quirky Inc.	7/16/14	7/2/14			8/15/14	1	11/13/14	1	1	6	9
Brooklyn stand-up Comedy Meetup	10/5/14	9/24/14	10/29/14		4/11/15	1	2/10/15	2	1	7	9
My Movie Group - Chills, Thrills & Chuckles	11/12/14	10/19/14	11/1/14		2/11/15	1	2/3/15	3	2	6	9
Ladies who love Wine & Board Games	10/8/14	9/13/14			4/11/15	1	Private		8	4	9
Upper East Side Dinner Club: For Foodie Adventurers	10/3/14	9/9/14	9/25/14		4/11/15	1	4/7/15	9	3	9	9
Brooklyn Chicago Blackhawks Fans	11/10/14	10/27/14	11/2/14		2/18/15	1	11/29/14	2	1	2	0
21 and Up Explores	6/3/14	5/14/14	5/31/14		7/16/14	1	6/21/14	6	1	4	0
New York Inline Skating and Blading Meetup LGBT	7/24/14	6/10/14	7/6/14		9/25/14	1	7/6/14	2	1	7	0
Gal's Basketball	6/1/14	4/21/14	5/1/14		7/10/14	1	6/3/14	3	2	4	0
Track Workouts for Runners (all levels) @ Astoria Park	6/3/14	4/22/14	4/29/14		7/10/14	1	7/8/14	4	2	4	0
Thrive in the Park Williamsburg	7/14/14	6/10/14	7/26/14		9/25/14	1	9/13/14	2	2	7	0
New York Footvolley Meetup	5/28/14	5/4/14	5/13/14		7/16/14	1	6/22/14	4	3	7	0
Yoga and Brunch! :) Washington Heights, NYC	6/4/14	5/6/14	5/10/14		7/16/14	1	6/21/14	2	4	1	0
Sunday Surrealist Film Night	10/3/14	9/2/14	10/5/14		4/11/15	1	1/25/15	5	7	7	0
Novels at Night - Paramus Book Discussion Meetup	6/19/14	5/29/14			9/25/14	1	9/18/14	9	1	6	0
All I Cook Now Is Cereal - Metro NYC	6/11/14	6/3/14	6/14/14		9/25/14	1	8/30/14	2	1	8	0
GEEK MECCA SHOWCASE SATURDAYS! Fun, Fantasy & Friendship!	8/29/14	7/16/14	9/28/14		4/11/15	1	3/27/15	8	1	5	0
NYRR Breakfast Club (9 E. 89th St.) - Bagels and Coffee	6/11/14	5/5/14	5/13/14		7/16/14	1	7/15/14	2	1	7	1
NY/NJ Airsoft Meetup	7/15/14	7/6/14			2/11/15	1	Private		1	8	1
NYC Sexy Salseras	11/12/14	10/9/14	10/19/14		2/11/15	1	2/4/14	4	2	4	1

NEW Jersey City Tennis Meetup- Beginners Group	8/15/14	6/13/14	8/9/14		9/25/14	1	9/20/14	2	3	1
Westchester Dungeons & Dragons Meetup	8/12/14	7/30/14			2/18/15	1	Private		3	1
Nyack Pick-up Soccer Meetup	6/2/14	5/3/14	5/17/14		7/15/14	1	7/12/14	9	5	1
Culinary Collective	10/8/14	9/9/14	9/27/14		4/11/15	1	3/11/15	6	8	1
REVEAL: A Storytelling Event	9/19/14	7/21/14	8/14/14		4/11/15	1	3/3/15	7	8	1
New York Mandarin and English Language Exchange Meetup	6/7/14	5/20/14			9/25/14	1	8/3/14	5	1	1
The Seniors 60+Cycling of Westchester	7/15/14	6/30/14			9/28/14	1	9/17/14	4	1	1
Tai Chi and Qigong in the park.	6/5/14	5/18/14	6/1/14		9/25/14	1	8/10/14	2	3	1
Orvis Yonkers at Ridge Hill	6/6/14	5/19/14	5/24/14		9/25/14	1	6/29/14	7	0	2
NYC Co-Ed Volleyball: Bump, Set & Spike!	7/24/14	7/1/14	7/6/14		8/29/14	1	9/19/14	7	3	2
Paint & Sip Art Parties	10/4/14	8/30/14	10/2/14		9/28/14	1			1	1
Beginner Rock Climbing & Bouldering in Queens	6/5/14	5/12/14	5/16/14		7/16/14	1	7/3/14	2	6	2
Bushwick Writers Meetup	8/15/14	8/4/14	8/17/14		9/28/14	1	9/28/14	7	4	3
Made by Italians - art, design, food, culture in NYC	11/15/14	10/23/14	11/1/14		2/11/15	1	12/14/14	3	1	3
Stamford Dinner and a Movie Meetup	11/10/14	10/23/14	11/6/14		2/18/15	1	2/16/15	8	1	3
Running and Nutrition. New York City	6/11/14	4/29/14	5/5/14		7/15/14	1	7/6/14	2	1	4
New York mandarin learners Meetup	6/10/14	5/2/14	5/17/14		7/15/14	1	7/12/14	3	2	4
New York Fashion and Style	11/15/14	7-Oct	10/18/14		2/11/15	1	Private		6	4
Blank Wave New York	10/5/14	9/24/14	10/31/14		4/11/15	1	3/28/15	3	7	4
Crown Heights Writers Society	10/8/14	9/6/14	9/24/14		4/11/15	1	4/6/15	1	2	4
NYC Singing Meetup Songs from 1890-1950@	9/21/14	8/6/14	8/22/14		4/11/15	1	12/26/14	4	6	4
Simply Astoria	7/12/14	6/19/14	6/28/14		7/15/14	1	11/3/14	4	1	4
Garden State Speculative Fiction Writers	11/12/14	10/20/14	11/1/14		2/11/15	1	2/7/15	6	5	5
Amazing Perspective Social Book Club	9/29/14	9/8/14	9/23/14		4/11/15	1	4/7/15	5	6	5
Hiking, Camping, Walking, Outdoor Single friends 40+ Meetup	6/10/14	5/9/14	5/10/14		7/16/14	1	7/13/14	3	2	5
NYC Urban Walkers/Talkers Club- 45+	10/5/14	9/6/14	10/5/14		4/11/15	1	12/25/14	1	7	5
Long Island Huntington Running Club (Ages 21-35)	6/20/14	6/2/14	6/11/14		9/25/14	1	9/3/14	4	2	6
International Superstar Soccer	9/27/14	7/14/14	7/20/14		11/15/14	1	10/2/14	1	6	6
Yonkers/Tuckahoe Knitting and Crochet Meetup	11/6/14	10/19/14	10/28/14		2/18/15	1	2/17/15	4	6	6

Co-Ed Basketball on the Upper West Side (New York)	5/30/14	5/5/14	5/10/14		7/16/14	1	7/12/14	1	7	1
NYC Handball!	7/24/14	6/13/14	6/14/14		9/25/14	1	9/20/14	9	8	1
New York Latin Swing Dance Meetup	9/27/14	8/1/14	8/7/14		4/11/15	1	3/12/15	2	1	1
North Jersey Live Comedy Fans	9/25/14	8/7/14	8/20/14		4/11/15	1	4/1/15	1	4	1
Bayonne Walking Group	11/6/14	10/3/14	10/12/14		2/18/15	1	2/8/15	7	5	1
Brooklyn Illustrator Meetup	6/12/14	5/25/14	5/27/14		9/25/14	1	9/16/14	8	0	1
JC Field Hockey	6/2/14	4/28/14	5/15/14		7/10/14	1	7/8/14	4	1	1
Active Lifestyle Meetup!	7/25/14	6/21/14			8/29/14	1	9/13/14	2	5	9
Brooklyn Ball Hockey	6/12/14	5/24/14	Private		9/25/14	1			1	1
NYC Shutterbugs	6/7/14	5/8/14	5/31/14		7/16/14	1	7/12/14	1	2	1
Brooklyn Strategist Saturday Evening Games Meetup	11/6/14	10/7/14	10/11/14		2/18/15	1	2/14/15	9	7	9
Creative Girls of New York City!	8/27/14	8/8/14	8/21/14		9/28/14	1	11/14/14	1	2	1
Highland Park Fitness Enthusiasts Group	5/29/14	5/9/14	5/19/14		7/16/14	1	7/13/14	3	8	2
Jerzee Fun Runners	10/15/14	8/28/14	9/6/14		4/11/15	1	12/27/14	4	5	2
Queens Walking and Hiking Meetup	9/19/14	7/20/14	8/4/14		11/15/14	1	10/19/14	2	6	2
S.W.E.A.T NYC	9/16/14	7/18/14	7/27/14		8/29/14	1	9/7/14	4	5	2
Monmouth Camera Club	10/6/14	8/31/14	9/4/14		4/11/15	1	4/2/15	6	7	2
Black Power Book Club	10/5/14	9/7/14	9/19/14		4/11/15	1	Private		5	2
Rivertown Ladies Running Group	7/12/14	6/9/14	6/14/14		9/25/14	1	None		1	2
Wednesday Night Poker in Williamsburg	7/10/14	6/20/14	7/16/14		7/15/14	1	11/5/14	3	3	2
Hackettstown Salsa Dance Group!	9/27/14	7/17/14	8/3/14		4/11/15	1	3/22/15	1	2	2
Newport Walk and Talk	9/25/14	8/9/14	8/13/14		4/11/15	1	4/1/15	5	5	2
r/nycHistory Meetup	6/17/14	5/30/14	7/3/14		9/25/14	1	9/17/14	2	2	2
Northern Westchester-Putnam Pick Up Soccer	6/6/14	5/16/14	5/31/14		9/25/14	1	7/26/14	5	1	2
Eric Leuthardt Photography Club - NYC	6/19/14	6/2/14	6/9/14		9/25/14	1	9/15/14	6	7	2
Farmingdale Karaoke every Friday!	10/15/14	9/15/14	10/10/14		2/18/15	1	2/13/15	1	0	2
Gotham City Dark Arts	7/14/14	7/5/14	7/21/14		2/11/15	1	2/7/15	5	6	2

										1	
Long Island Push Hands	9/27/14	7/13/14	8/2/14		4/11/15	1	4/4/15	2	2	7	2
I LOVE THE 80'S & 90'S!!! (EVERYONE IS WELCOME!!!)	7/26/14	6/26/14			8/29/14	1	11/14/14	5	8	6	2
NYC Fit Foodies	9/21/14	8/5/14	10/21/14		4/11/15	1	3/31/15	2	9	5	2
Free Movies & Popcorn (and FIFA World Cup too)	7/14/14	6/13/14	6/17/14		9/25/14	1	8/11/14	4	9	8	2
New York Soccer	7/16/14	7/2/14	7/12/14		8/15/14	1	11/9/14	1	1	4	2
Harmony Singers NJ - mixed voices	6/19/14	6/4/14	6/17/14		9/25/14	1	9/16/14	4	5	4	2
Love Healing Community of Central Jersey	6/20/14	6/4/14	6/13/14		9/25/14	1	9/19/14	3	7	2	2
InTandem: Tandem riding with the visually impaired/disabled	9/27/14	7/22/14	8/9/14		4/11/15	1	4/10/15	3	7	6	2
NYC DANCEAHOLICS AGES 40s 50s 60s	11/12/14	10/18/14	11/1/14		2/11/15	1	2/8/15	1	7	2	2
Greenpoint Grappling Club	10/16/14	9/17/14	9/24/14		2/18/15	1	2/13/15	2	7	4	2
NYC Social Dancing	6/6/14	5/4/14	5/28/14		7/16/14	1	6/29/14	2	4	3	3
Sacred Rhythms Drum Circle	9/19/14	7/27/14	8/14/14		4/11/15	1	3/21/15	2	5	0	3
Long Island Maker Space	9/27/14	7/21/14	8/13/14		4/11/15	1	3/26/15	7	3	8	3
East Central Jersey / Docking Bay 94	10/8/14	9/21/14			4/11/15	1	Private		1	4	3
Manhattan Muay Thai	9/27/14	8/4/14	8/20/14		4/11/15	1	4/1/15	7	1	4	3
Westchester/Fairfield Soccer	7/14/14	6/15/14	6/29/14		7/15/14	1	11/15/14	3	1	9	3
Tri-state Sportbike riders	7/12/14	6/10/14	Private		9/25/14	1			9	5	4
Fun & Games MeetUp - Tenafly (Northern New Jersey / NJ)	8/29/14	8/1/14	8/3/14		4/11/15	1	4/5/15	1	1	9	4
Bridge for the Developing Player at Tinton Woods	7/25/14	6/30/14	10/31/14		8/29/14	1	9/14/14	6	8	8	1
Brooklyn tabletop strategy gaming @ nubrandgaming	8/12/14	7/18/14	6/30/14		2/18/15	1	12/10/15	3	7	3	4
New York Hikers and Backpackers Club	10/6/14	9/18/14			4/11/15	1	Private		6	0	4
Ladies Who Hoop NYC	11/6/14	10/20/14			2/18/15	1	Private		1	6	4
SOCCER FOR FUN	10/3/14	9/9/14			4/11/15	1	Private		3	3	4
Lambertville Yoga for Men Meetup	10/16/14	9/17/14	10/14/14		2/18/15	1	2/10/15	6	1	0	4
Adventures, Exploration, Social Networking & Events NYC	6/6/14	5/8/14	6/1/14		7/16/14	1	7/13/14	3	8	2	5
Queens FC: 40k	11/11/14	10/25/14	10/28/14		2/11/15	1	1/31/15	4	2	6	7
The Wayne Tennis Meetup Group	6/3/14	5/8/14	5/21/14		8/28/14	1	8/27/14	7	1	0	5

										4	
Hoboken Running Bootcamp!	10/6/14	6/16/14	Private		9/28/14	1					60
Princeton Board Games on the Casual	10/4/14	9/19/14	9/31/14		4/11/15	1	4/7/15	25	53	46	61
Empire Skate Club of New York	8/29/14	7/25/14	8/1/14		4/11/15	1	10/31/14	13	96	65	
Study Japanese Casual Conversation Group!!	6/14/14	5/23/14	5/26/14		9/25/14	1	9/19/14	5	80	31	00
Pure Bliss Yoga: Outdoor Classes, Hikes, Camping & More	7/26/14	6/23/14	6/30/14		8/29/14	1	11/13/14	2	10	47	
Harlem Bootcamp to The People	6/19/14	5/26/14			9/25/14	1	7/10/14	4	19	96	
Dickey's Devious Diversions	6/4/14	4/21/14			7/10/14	1	None		1		
Jaida's Hopechest & Union County Crafters	7/26/14	6/15/14	7/2/14		8/29/14	1	None		3		
Moms Run This Town	7/15/14	6/27/14			8/15/14	1	None		4		
Yonkers makers for tech savvy dads	7/11/14	7/4/14			2/11/15	1	None		6		
Achilles - Woodside/Sunnyside Outdoor Fitness Meetup	7/10/14	6/18/14	6/15/14		7/15/14	1	None		7		
NNJ builders club	7/24/14	6/23/14			8/29/14	1	None		7		
Refuge of the Roads: The Life & Times of Touring Musicians	6/4/14	5/20/14	6/1/14		9/25/14	1	None		7		
Vernon Movie and Discussion Progressive Friends	7/11/14	6/20/14			7/15/14	1	None		9		
Classical Musicians' Parlor Circle	6/11/14	6/1/14			9/25/14	1	None		9		
Husky and Malamute adventure group!	9/27/14	7/18/14			8/29/14	1	None		10		
Boat Meetups NYC	10/5/14	9/10/14			4/11/15	2	None		12		
Asha Marathon Training Program 2014 - Princeton, NJ	7/10/14	6/20/14	6/21/14		7/15/14	1	None		13		
Montclair area Writers Who Walk	6/19/14	6/2/14	Private		9/25/14	1			14		
HARLEM UPTOWN SUNDAY MORNING BASKETBALL 30+ CO-ED PLAYERS	6/19/14	5/30/14	6/8/14		9/25/14	1	None		26		
(C)ross-(D)isciplinary-(C)ritique nyc	7/25/14	7/5/14			2/11/15	1	None		34		
Middlesex County's Songwriter's Group	7/25/14	7/4/14			2/11/15	1	None		46		
New England Whitewater Rafting/Camping/Boozing	7/25/14	6/20/14			8/29/14	1	None		53		
The Photographer's Photo Shoot Meetup	6/13/14	5/26/14	Private		9/25/14	1			53		
GREAT TIMES	6/10/14	5/19/14	5/22/14		9/25/14	1	None		60		
No Sleep Til	11/12/14	10/13/14	10/21/14		2/11/15	1	11/14/14	2	70		
North NJ Poker Meetup	11/12/14	10/22/14			4/11/15	1	4/4/15	3	75		
Hudson Valley Ballroom & Latin Dancing Meetup	8/29/14	8/10/14	private		4/11/15	1			91		
The Ski and Snowboard of New York Meetup	8/25/14	8/2/14			4/11/15	1	Private		11		

										3	
										9	
										5	
I don't want to travel alone!	9/19/14	6/23/14			8/29/14	1	None				
Staten Island Music Production Meetup	6/17/14	6/4/14			9/25/14	2					
Crossfitting Mavericks	6/18/14	5/20/14	6/14/14		9/25/14	2					
Cigar Circle	7/10/14	6/26/14			9/28/14	2					
Gay Men's Trip to a Villa in Tuscany, Greece, Argentina...	7/13/14	6/25/14			9/28/14	2					
Sewing Circle for Nassau County	8/20/14	8/6/14			9/28/14	2					
Saxophonists Casual Playing Meetup	8/20/14	8/9/14	8/16/14		9/28/14	2					
LACROSSE Lovers BRONX NY	10/8/14	8/30/14	9/4/14		9/28/14	2					
Beer Blog Happy Hour	11/6/14	10/8/14	10/28/14		2/18/15	2					
NYC Foot Fetish	6/6/14	4/30/14			7/15/14	1					
Monmouth County Daytime Dare to Read Book Club	6/7/14	4/30/14	5/30/14		7/15/14	1					
Speakeasy lover	7/10/14	6/22/14	Private		7/15/14	1					
Women's trail run-walk group	7/14/14	6/28/14	Private		7/15/14	1					
Long Island Kinksters & Swingers Meet Up	6/4/14	5/4/14	5/17/14		7/16/14	1					
Westchester Kenpo and Wing Chun	8/12/14	7/18/14	Private		8/29/14	1					
Erotic Desires NYC	6/9/14	5/19/14	Private		9/25/14	1					
Stuff that's Bad for You	6/14/14	6/1/14			9/25/14	1	None				
Glen Rock Tae Kwon Do Club at All Saints Church	6/18/14	5/30/14	6/4/14		9/25/14	1	None				
Country Line and Couples Dancing	6/18/14	6/1/14			9/25/14	1					
Mountain Biking Active (MBA)	6/19/14	6/1/14	Private		9/25/14	1					
Norwalk Black Artist Association Meet-up	6/20/14	6/2/14	None		9/25/14	1					
Bergen County area Dungeons and Dragons/RPG Meetup Group	6/5/14	5/1/14			7/15/14	2					
New York Food and Sea Lovers ***Luxury Cruises Meetup	6/4/14	4/22/14	5/13/14		7/10/14	2					
Brooklyn Books, Beers, and Bitching Meetup	6/4/14	4/25/14			7/10/14	2					
Brooklyn Beginners*Building A Better Body	6/5/14	4/29/14			7/10/14	2					
Gyrl Tyme	6/10/14	4/27/14	5/9/14		7/10/14	2					
Morris County Small Dog Group	6/10/14	5/2/14	5/17/14		7/15/14	2					
ART NEW YORK	7/10/14	6/22/14	6/22/14		7/15/14	2					
WE LIKE TO PARTY IN NYC!	7/10/14	6/26/14			7/15/14	2					
Westchester jewelry making meetup group	7/10/14	6/27/14			7/15/14	2					
Artists' Support Group Based on Julia Cameron's Methods	7/10/14	6/29/14			7/15/14	2					
South Orange Bootcamp workout Meetup	7/12/14	6/16/14	6/21/14		7/15/14	2					
Sandy Hook-up for Naked Ball Games	7/12/14	6/30/14	Private		7/15/14	2					
Westchester Fitness and Wellness	7/14/14	6/20/14			7/15/14	2					

Union Sports and Entertainment Meetup	7/14/14	6/27/14			7/15/14	2				
Gold coast long island soccer	7/14/14	6/28/14			7/15/14	2				
Wallington Soccer Meetup	7/14/14	7/2/14			7/15/14	2				
The Sons of Faulkner	6/3/14	5/7/14	6/1/14		7/16/14	2				
Bayridge Writing Moms Meetup	6/4/14	5/12/14			7/16/14	2				
Around the World Travels Meetup	6/5/14	5/14/14			7/16/14	2				
Huntington Lose Weight & Get Healthy Meetup	6/7/14	5/12/14			7/16/14	2				
NYC Central Park Day-Time Riders - Cycling	6/10/14				7/16/14	2				
MotoMamas	7/15/14	6/17/14	7/12/14		8/15/14	2				
Music Is the Drug Events	7/15/14	6/29/14	6/30/14		8/15/14	2				
NYC RACQUET BALL - PADDLE BALL	7/16/14	6/15/14			8/15/14	2				
Union County Yoga in the Park Meetup	7/16/14	6/17/14	7/28/14		8/15/14	2				
Long Island City Beach Soccer and Footvolley Meetup	7/23/14	6/28/14	7/16/14		8/29/14	2				
NY Beer loving Athletageeks	7/24/14	6/23/14			8/29/14	2				
NYC Dachshund Club	7/24/14	6/24/14			8/29/14	2				
ManhattanVille Pick-Up Softball	7/25/14	6/20/14	7/6/14		8/29/14	2				
Last Days Meetup Group	7/25/14	6/20/14			8/29/14	2				
Astoria Cyclists	7/25/14	6/26/14	7/2/14		8/29/14	2				
Ozone Park Soccer @ Southern Fields / Victory Fields	7/26/14	6/20/14	6/22/14		8/29/14	2				
The Philosopher Kings' Book Club	7/26/14	6/30/14	7/8/14		8/29/14	2				
The Picnic! - Art & Design Industry Meet-up and Talk	7/26/14	7/1/14	7/5/14		8/29/14	2				
New York Health, Fitness and Wellness Meetup	7/30/14	6/21/14			8/29/14	2				
NEW YORK CULTURE SEEKERS	7/30/14	6/28/14	7/26/14		8/29/14	2				
LET'S EXPLORE NEW YORK!!!	8/1/14	6/26/14	7/25/14		8/29/14	2				
Feetup?	9/19/14	6/23/14	Private		8/29/14	2				
Creating Visual Art Journals: Westchester Women 30s/40s	9/20/14	6/28/14	Private		8/29/14	2				
Fitness Fun	9/25/14	6/17/14			8/29/14	2				
Beginners Runners Meetup (NYC), And Make New Friends	6/5/14	5/18/14	6/2/14		9/25/14	2				
Amphibians	6/11/14	5/23/14			9/25/14	2				
Battery Park IT Professional Jogging Meetup	6/11/14	5/30/14			9/25/14	2				
Brooklyn Editorial Drinking Society	6/12/14	5/20/14			9/25/14	2				
Bronx No Limit Texas Hold 'Em Meetup	6/12/14	6/2/14			9/25/14	2				
Central New Jersey Flushing Dog Field Training Meetup	6/13/14	5/26/14			9/25/14	2				
Central Jersey/SouthBrunswick Recreational Volleyball meetup	6/13/14	5/27/14			9/25/14	2				

The House of Ill Repute	6/13/14	5/28/14			9/25/14	2				
The S.O.C.A. Society, Rosedale Chapter Meetup	6/13/14	5/30/14			9/25/14	2				
Casino Players Club	6/13/14	6/1/14			9/25/14	2				
The Scooter Rydaz North Jersey/Central Jersey/NYC?	6/16/14	6/2/14	6/15/14		9/25/14	2				
Planet Connections Theatre Festivity: Green Events!	6/17/14	5/20/14	5/28/14		9/25/14	2				
secondWave	6/17/14	5/27/14			9/25/14	2				
Let's go to the beach this Summer...	6/17/14	6/2/14	6/14/14		9/25/14	2				
Cook Single NYC	6/18/14	5/22/14			9/25/14	2				
New York Jupiter Meetup	6/18/14	5/22/14			9/25/14	2				
Everything is Awesome, NJ Adventures	6/18/14	5/25/14			9/25/14	2				
New York Exciting Tours Meetup SEE/LIVE NYC !	6/18/14	5/28/14			9/25/14	2				
Cuddle with Me at The Shore	6/18/14	6/3/14			9/25/14	2				
Hoboken Salsa Meetup	6/19/14	5/20/14			9/25/14	2				
Italian speaking and Bocce FUN!	6/19/14	5/25/14			9/25/14	2				
NYC LES - Free Morning YogaBreak in the East River Park	6/20/14	5/20/14	5/27/14		9/25/14	2				
NYC Fearless WOmAn Poetry Workshop	6/20/14	5/24/14			9/25/14	2				
Jersey City Erhu Learners (JC二胡学生与演奏家)	6/20/14	6/1/14			9/25/14	2				
International Explorers of the tristate area	6/24/14	6/1/14			9/25/14	2				
Sports,Travel and Event Photography Tips	7/10/14	6/10/14			9/25/14	2				
Organic Cold Pressed Juicing.	7/16/14	6/12/14	6/13/14		9/25/14	2				
NYC Young Black Creatives	7/16/14	6/13/14			9/25/14	2				
NY Parks and Beaches	7/26/14	6/12/14			9/25/14	2				
Aimless Auto Club - NY	7/10/14	7/4/14	7/4/14		2/11/15	2				
Yoga Sculpt in Morningside Park	7/11/14	7/6/14			2/11/15	2				
Drunkards and Dragons	7/13/14	7/8/14	7/10/14		2/11/15	2				
Uniondale Outdoor Adventures Meetup	7/14/14	7/7/14			2/11/15	2				
Watermelon Wednesdays	7/14/14	7/7/14			2/11/15	2				
Northern NJ Gaming and Geekery	7/21/14	7/4/14	7/13/14		2/11/15	2				
North Jersey Magic: The Gathering Meetup Group	7/21/14	7/6/14			2/11/15	2				
Lovers of the Arts (LOTAs)	7/23/14	7/5/14	7/19/14		2/11/15	2				
Novel Writers Workshop & Critique Group	7/24/14	7/6/14	7/23/14		2/11/15	2				
Brooklyn Pickup Prospect Park Area	7/25/14	7/3/14	7/16/14		2/11/15	2				
Paterson Watch Movies Meetup	7/26/14	7/6/14			2/11/15	2				
Manhattan Mixers (Fans of Art Journaling & Mixed M	7/27/14	7/2/14			2/11/15	2				

New York Photo, Studio, and Art Imagery: Shoot, Draw, Film	7/27/14	7/2/14			2/11/15	2				
McCarren Park Time Trial Tuesdays-Running jogging & walking	8/1/14	7/6/14			2/11/15	2				
Psychoanalysis reading group	11/11/14	10/8/14	11/7/14		2/11/15	2				
Electronic Music composer and singer Meetup	11/11/14	10/22/14	11/4/14		2/11/15	2				
Milkywaygazing Meetup	11/12/14	10/8/14	10/24/14		2/11/15	2				
FASHIONISTAS/ TECHIES -	11/12/14	10/23/14	10/28/14		2/11/15	2				
Montclair Portrait Photography Meetup	11/12/14	10/31/14			2/11/15	2				
New York City Cleveland Cavaliers Fans (NYC CAVS)	11/15/14	10/14/14			2/11/15	2				
New York Photography, Film, and Sketch	11/15/14	10/25/14			2/11/15	2				
New York Doctor Who Fans	11/15/14	10/29/14			2/11/15	2				
Brookville Runners Club 20-40 yr olds	8/15/14	8/4/14			2/18/15	2				
Passport To Eating	10/15/14	9/26/14	Private		2/18/15	2				
Gay Surfers	10/16/14	8/28/14	9/13/14		2/18/15	2				
Free Tristate Landscape Photography Meetup	10/16/14	8/30/14			2/18/15	2				
Goldens Bridge Scrabble Meetup	10/16/14	9/12/14			2/18/15	2				
Friendly Sparrings Club	11/6/14	10/4/14			2/18/15	2				
Allentown / Hamilton Running Meetup Group	11/6/14	10/6/14			2/18/15	2				
Beginner Submission Grappling Meetup in Newark	11/6/14	10/19/14	11/2/14		2/18/15	2				
Forest Hills Fall Volleyball (Indoor)	11/6/14	10/29/14			2/18/15	2				
Brooklyn Scenic Hikes and Walks	11/10/14	10/2/14	10/18/14		2/18/15	2				
Brooklyn Photography	11/10/14	10/5/14	10/12/14		2/18/15	2				
Bills Fans Thank the Pegulas	11/10/14	10/7/14	10/8/14		2/18/15	2				
Summit Sunday Pick-Up Soccer	11/10/14	10/29/14	11/2/14		2/18/15	2				
Williamsburg Chess Meetup	8/15/14	8/4/14	8/10/14		4/11/15	2				
Paranormal Writers, Readers & "Haunters"	8/15/14	8/10/14			4/11/15	2				
NYC Pillow Fight Club	8/16/14	7/26/14			4/11/15	2				
Monty Python Aficionados of New York City	8/19/14	7/15/14			4/11/15	2				
Middletown Pick-up Soccer Meetup	8/19/14	7/23/14			4/11/15	2				
Maple Sugaring on Long Island	8/19/14	7/30/14			4/11/15	2				
Action Movie Nights for 30ish Cool Dudes & Hip Ladies	8/19/14	8/2/14			4/11/15	2				
Ewing RPG Gamers Group	8/19/14	8/3/14	8/17/14		4/11/15	2				
Titusville Recreational Skating group	8/20/14	7/15/14			4/11/15	2				
The Sunday Walking Club	8/25/14	8/2/14	8/10/14		4/11/15	2				
Stamford Intermediate Social Bridge Players Meetup	8/26/14	7/14/14			4/11/15	2				

Stamford Photography Etc Meetup Group	8/26/14	7/15/14	8/3/14		4/11/15	2				
Spartan Racing	8/26/14	7/25/14	7/28/14		4/11/15	2				
Stamford Area Triathletes	8/26/14	7/29/14			4/11/15	2				
Creating zines and comics.	8/27/14	7/29/14	8/20/14		4/11/15	2				
Dumont Runners Group	8/27/14	8/5/14			4/11/15	2				
Astoria Arts & Crafts Meetup	8/28/14	7/16/14	8/27/14		4/11/15	2				
Brooklyn Boffer Meetup	8/28/14	7/22/14			4/11/15	2				
Aspiring Art Collectors	8/28/14	7/27/14			4/11/15	2				
Central Park Duathlon AM Training Group (Tavern on Green)	8/28/14	7/27/14	8/25/14		4/11/15	2				
Comedy Writing Workshops Meetup	8/28/14	8/4/14			4/11/15	2				
Brooklyn Fit Camp	8/28/14	8/6/14			4/11/15	2				
East Meadow Ladies Walk for Fitness	8/29/14	7/17/14	7/22/14		4/11/15	2				
Garret Mountain Park	8/29/14	7/20/14	7/28/14		4/11/15	2				
Dirty Hearts Club of NJ	8/29/14	7/29/14			4/11/15	2				
How Does Your Garden Grow?	8/29/14	7/29/14	8/28/14		4/11/15	2				
Queens Blues Jam	9/16/14	7/20/14			4/11/15	2				
Tri State J.Walkers (Photo Walks)	9/16/14	7/26/14	8/4/14		4/11/15	2				
Rego riding for fun and fitness	9/16/14	7/29/14			4/11/15	2				
Sunday Walking Club	9/16/14	8/2/14	8/10/14		4/11/15	2				
Queens & Long Island Coed FRIENDLY Soccer Games	9/16/14	8/8/14	8/16/14		4/11/15	2				
The Brooklyn Rap Battle League	9/16/14	8/9/14	8/16/14		4/11/15	2				
Queens Fit Saturday's (Cunningham Park, Fresh Meadow)	9/19/14	7/16/14	8/23/14		4/11/15	2				
Hell's Kitchen Craft Beer and Cheese Night!	9/19/14	7/20/14			4/11/15	2				
Queen King Travel	9/19/14	7/21/14	7/23/14		4/11/15	2				
Paws In The Park	9/19/14	8/1/14	8/16/14		4/11/15	2				
Rap Battles NYC	9/19/14	8/4/14	9/6/14		4/11/15	2				
Llama Llama Ewe Project Nights	9/19/14	8/5/14	8/8/14		4/11/15	2				
Manhattan Documentary Film Lovers Meetup	9/19/14	8/7/14	9/4/14		4/11/15	2				
Ocean County, NJ Co-Ed Adult Softball Meetup	9/20/14	8/6/14			4/11/15	2				
New York Weightlifting and Beer Meetup	9/21/14	7/15/14			4/11/15	2				
NYC Global Snow Chasers	9/21/14	7/15/14	8/23/14		4/11/15	2				
Note-by-Note Cuisine	9/21/14	8/2/14			4/11/15	2				

NYC Learning Japanese by Singing Karaoke	9/21/14	8/3/14			4/11/15	2				
NYC Cheerleading & Dance Team Inspired Fitness Meetup	9/21/14	8/9/14	8/18/14		4/11/15	2				
FREE DANCE FITNESS CLASSES in NYC!	9/25/14	7/3/14	7/20/14		4/11/15	2				
NJ Traveling Runners	9/25/14	7/27/14	8/3/14		4/11/15	2				
New York Shamrocks Soccer Club	9/25/14	8/9/14	8/14/14		4/11/15	2				
New York City: Traditional, Catholic, and Board Gamers!	9/25/14	8/9/14			4/11/15	2				
Monster Hunter NYC	9/27/14	7/23/14	8/1/14		4/11/15	2				
I LOVE DUBSTEP	9/27/14	7/24/14			4/11/15	2				
New York City Strip Poker	9/27/14	7/28/14	PRIVATE		4/11/15	2				
A Long Time Gone	9/28/14	9/24/14			4/11/15	2				
Basketball Lovers Meetup	9/29/14	9/1/14			4/11/15	2				
Beach Front Walkers	9/29/14	9/8/14	9/15/14		4/11/15	2				
Xbox Madden 15, 2k15 & Live NFL & NBA sport games. Open bar.	9/29/14	9/17/14			4/11/15	2				
Williamsburg Casual Frisbee	9/29/14	9/26/14			4/11/15	2				
Englewood Wine Tasting Meetup	10/3/14	8/5/14			4/11/15	2				
Westchester n Bronx Pool, Park Skateboarders n Longboarders	10/3/14	9/6/14			4/11/15	2				
SS Academy	10/3/14	9/17/14			4/11/15	2				
Park Slope Kickabout	10/4/14	9/9/14	PRIVATE		4/11/15	2				
Cliffside Park Ladies - Books, Wine, and Food Socials	10/5/14	8/28/14			4/11/15	2				
Northwest NJ Philosophy/Science/Literature Discussion	10/5/14	8/28/14			4/11/15	2				
New York's First Bedroom Arcade Meetup	10/5/14	9/1/14			4/11/15	2				
Bronx Soccer Meetup	10/5/14	9/8/14	9/18/14		4/11/15	2				
Brooklyn (Midwood/Kensington) Walking Meetup	10/5/14	9/10/14	9/29/14		4/11/15	2				
Classical Trios	10/5/14	9/15/14	10/4/14		4/11/15	2				
Clinton Park Pick-up Soccer	10/5/14	9/19/14	10/3/14		4/11/15	2				
Brooklyn Couples Game Nights	10/5/14	9/21/14	9/27/14		4/11/15	2				
Dawn-Breakers Tri Club	10/6/14	7/31/14			4/11/15	2				
Long Island Geocaching	10/6/14	9/1/14			4/11/15	2				
Long Island Surfers/Bodyboarders HQ	10/6/14	9/3/14			4/11/15	2				
Lolë New York Run Club	10/6/14	9/8/14	9/24/14		4/11/15	2				
Mini Golf Drinking League Of Champions	10/6/14	9/8/14			4/11/15	2				

New York Football Happy Hour Meetup	10/6/14	9/16/14			4/11/15	2				
New York Improv and Acting Workshop Meetup	10/6/14	9/20/14	10/3/14		4/11/15	2				
Drinking, gaming, and adult fun!	10/8/14	6/23/14	Private, no organizer		4/11/15	2				
Drunken Shakespeare	10/8/14	9/1/14	9/21/14		4/11/15	2				
Drink & Draw at Arts & Crafts Beer Parlor Greenwich Village	10/8/14	9/2/14	9/7/14		4/11/15	2				
Lapsed Women Poets: let's write again!	10/8/14	9/4/14	10/4/14		4/11/15	2				
Denver Broncos Fans in Brooklyn	10/8/14	9/11/14	10/5/14		4/11/15	2				
Distilled Nation	10/8/14	9/18/14			4/11/15	2				
New York Outdoor Fitness Meetup	10/15/14	9/14/14			4/11/15	2				

APPENDIX D
STUDY 3 CONTENT

In this Appendix:

- (1) Survey Guide**
- (2) Statistical Analysis**

NJIT Meetup Organizers Survey

A Survey of Meetup Organizers

Thank you for participating in my survey. This research is part of a New Jersey Institute of Technology Ph.D student's research on how people gather for interest-based group activities. I am in no way affiliated with Meetup.com, and none of this information will be seen or used by Meetup.com. Your answers will be anonymized.

Please answer the questions only about the new Meetup group I contacted you about.

NJIT Meetup Organizers Survey

* What is the name of your Meetup group?

* What is your group about?

* Before creating this group, how many people did you personally know shared this interest?

* Did you organize an activity related to this interest before organizing your meetup group?

Yes No

* Were you part of a group for this interest before organizing your group on Meetup?

Yes No

* Did you form a group of people offline for this interest before organizing your group on Meetup?

Yes No

NJIT Meetup Organizers Survey

Offline Group Formed

* How many people were in this offline group you formed?

NJIT Meetup Organizers Survey

* What is your own assessment of how successful your group is going to be?
Very unsuccessful | Unsuccessful | Unsure | Successful | Very successful

* Has your group had their first meetup event?

Yes No

NJIT Meetup Organizers Survey

Yes, had first meetup

* How many people did you expect to have at the first meetup?

* How successful do you feel the first meetup was?
Very unsuccessful Unsuccessful Unsure Successful Very Successful

* How many people actually came?
Far too little Too little About right Too much Far too much

* Was there active participation?
Far too little Too little About right Too much Far too much

* On a scale of 1 to 5, how much work was involved in organizing the meetup?
(None) 1 2 3 4 5 (A Lot)

NJIT Meetup Organizers Survey

No, did not have first meetup

* Do you know when your first meetup for this group will be?

Yes No

When is your first meetup going to be?

Date: MM DD YYYY

* How many people do you need for a successful meetup?

* How successful do you think your first meetup is going to be?

Very unsuccessful Unsuccessful Unsure Successful Very Successful

NJIT Meetup Organizers Survey

Leadership

This is the last part, please fill out these final questions:

* Evaluate the following statements.

Strongly Disagree | Disagree Neither Disagree Nor Agree | Agree | Strongly Agree

Most of the time, I prefer being a leader rather than a follower when working in a group

I am the type of person who is not interested in leading others

I am definitely not a leader by nature

I am the type of person who likes to be in charge of others

I usually want to be the leader in the groups that I work in

I am only interested to lead a group if there are clear advantages for me.

I would only agree to be a group leader if I know I can benefit from that role.

I will never agree to lead if I cannot see any benefits from accepting that role.

I would agree to lead others even if there are no special rewards or benefits with that role.

I have more of my own problems to worry about than to be concerned about the rest of the group.

I feel that I have a duty to lead others if I am asked.

I agree to lead whenever I am asked

I was taught to believe in the value of leading others.

I am asked or nominated

It is appropriate for people to accept leadership role positions when they are asked.

It is an honor and privilege to be asked to lead.

NJIT Meetup Organizers Survey

Last Question!

(Optional) Would you provide your email in case I have additional follow-up questions?

NJIT Meetup Organizers Survey

Finished. Thank you!

That is all the questions for today.

Thank you again for participating in my survey. Please click **DONE** to submit your answers!

If you have any questions about your participation, you may contact me: sr82@njit.edu or Dr. Quentin Jones

Statistical Analysis

List of primary interests

Interests	Frequen cy	Perce nt	Valid Percent	Cumulative Percent
Video Games	51	7.9	7.9	98
Reading	32	5	5	74.4
Music	24	3.7	3.7	61.7
Soccer	22	3.4	3.4	79.4
Movies	20	3.1	3.1	58
Technology	15	2.3	2.3	87.9
Programming	14	2.2	2.2	69
Studying	14	2.2	2.2	83.9
Badminton	8	1.2	1.2	27.9
Chess	8	1.2	1.2	33.5
Computers	8	1.2	1.2	37.2
Cricket	8	1.2	1.2	38.9
Friends	7	1.1	1.1	45.4
swimming	7	1.1	1.1	85.3
Basketball	6	0.9	0.9	29.3
Photography	6	0.9	0.9	65.1
Sports	6	0.9	0.9	81.4
Computer Science	5	0.8	0.8	36
Family	5	0.8	0.8	41.9
Fitness	5	0.8	0.8	42.9
Football	5	0.8	0.8	44.3
Tennis	5	0.8	0.8	88.7
Dance	4	0.6	0.6	40
Food	4	0.6	0.6	43.6
Ping Pong	4	0.6	0.6	65.7
Anime	3	0.5	0.5	25.6
Art	3	0.5	0.5	26.2
Bowling	3	0.5	0.5	30.4
Cars	3	0.5	0.5	32.1
Comics	3	0.5	0.5	34.9
Hiking	3	0.5	0.5	48.7
Internships	3	0.5	0.5	50.5
IT	3	0.5	0.5	51.5
Painting	3	0.5	0.5	63.7
Social Events	3	0.5	0.5	79.8
Travelling	3	0.5	0.5	89.5

TV	3	0.5	0.5	90.1
Watching TV	3	0.5	0.5	99.1
ACM	2	0.3	0.3	25
Astronomy	2	0.3	0.3	26.7
Baseball	2	0.3	0.3	28.4
Building computers	2	0.3	0.3	30.9
Comedy	2	0.3	0.3	34.4
Eating	2	0.3	0.3	41.1
Frisbee	2	0.3	0.3	45.7
Hacking	2	0.3	0.3	47.6
Hanging out	2	0.3	0.3	48.2
Hockey	2	0.3	0.3	49.1
Internet	2	0.3	0.3	49.9
Jobs	2	0.3	0.3	51.9
Learning	2	0.3	0.3	53
Machine Learning	2	0.3	0.3	53.8
Playing piano	2	0.3	0.3	66.2
snowboarding	2	0.3	0.3	76
Stocks	2	0.3	0.3	81.7
Writing	2	0.3	0.3	100
3D modeling	1	0.2	0.2	24.7
Animation	1	0.2	0.2	25.1
Archery	1	0.2	0.2	25.7
Art hobbies	1	0.2	0.2	26.4
Badminton, Dancing	1	0.2	0.2	28.1
bass	1	0.2	0.2	29.5
Beautiful and simple explanations	1	0.2	0.2	29.6
bird watching	1	0.2	0.2	29.8
Board games	1	0.2	0.2	29.9
Browsing	1	0.2	0.2	30.5
building prototypes	1	0.2	0.2	31
business	1	0.2	0.2	31.2
Business	1	0.2	0.2	31.3
Camping	1	0.2	0.2	31.5
car upgrades	1	0.2	0.2	31.6
Chatting with my friends	1	0.2	0.2	32.2
Church	1	0.2	0.2	33.6
clubbing	1	0.2	0.2	33.8
Clubs	1	0.2	0.2	34
Coding	1	0.2	0.2	34.1
computer programming	1	0.2	0.2	35

Computer science	1	0.2	0.2	35.2
concert	1	0.2	0.2	37.4
Cooking	1	0.2	0.2	37.5
cosplay	1	0.2	0.2	37.7
crossfit	1	0.2	0.2	39.1
Current Events/Politics	1	0.2	0.2	39.2
Cyber Security	1	0.2	0.2	39.4
Dance, Singing and Music Contests	1	0.2	0.2	40.2
Data analysis	1	0.2	0.2	40.3
design	1	0.2	0.2	40.5
driving	1	0.2	0.2	40.6
Drumming	1	0.2	0.2	40.8
fashion	1	0.2	0.2	42
Finance	1	0.2	0.2	42.2
Fun Activities	1	0.2	0.2	45.9
Gadgets	1	0.2	0.2	46
game of thrones	1	0.2	0.2	46.2
Games and Sports	1	0.2	0.2	46.4
German	1	0.2	0.2	46.5
go to plays (NJIT-Rutgers theater)	1	0.2	0.2	46.7
golf	1	0.2	0.2	46.8
Government	1	0.2	0.2	47
Gym	1	0.2	0.2	47.1
Gymnastics	1	0.2	0.2	47.3
Ham Radio operator	1	0.2	0.2	47.8
Handmade Crafts	1	0.2	0.2	47.9
History	1	0.2	0.2	48.8
How things work together	1	0.2	0.2	49.3
Human Rights	1	0.2	0.2	49.5
Information	1	0.2	0.2	49.6
internet Surfing	1	0.2	0.2	50.1
InterVarsity Christian Fellowship	1	0.2	0.2	50.7
investing	1	0.2	0.2	50.9
islam	1	0.2	0.2	51
Java programming	1	0.2	0.2	51.6
jobs searching	1	0.2	0.2	52.1
Kendo	1	0.2	0.2	52.2
La Bella Lingua = The Beautiful Language	1	0.2	0.2	52.4
Law	1	0.2	0.2	52.6
League of Legends	1	0.2	0.2	52.7

learning how to make websites	1	0.2	0.2	53.2
Life	1	0.2	0.2	53.3
lifting	1	0.2	0.2	53.5
Magic:The Gathering	1	0.2	0.2	54
Martial Arts	1	0.2	0.2	54.1
math	1	0.2	0.2	54.3
Meditating	1	0.2	0.2	54.4
Military History	1	0.2	0.2	54.6
mobile games	1	0.2	0.2	54.7
Money	1	0.2	0.2	54.9
Music concerts	1	0.2	0.2	61.9
My Little Pony	1	0.2	0.2	62
network science	1	0.2	0.2	62.2
new computer related activities	1	0.2	0.2	62.3
New Languages	1	0.2	0.2	62.5
NJIT	1	0.2	0.2	62.6
novel	1	0.2	0.2	62.8
Oculus Rift/virtual reality	1	0.2	0.2	62.9
online videos	1	0.2	0.2	63.1
Out door games	1	0.2	0.2	63.3
painting/crafts	1	0.2	0.2	63.9
PC building	1	0.2	0.2	64
pets	1	0.2	0.2	64.2
Playing guitar	1	0.2	0.2	65.9
pleasant place	1	0.2	0.2	66.4
politics	1	0.2	0.2	66.5
pool	1	0.2	0.2	66.7
Pool	1	0.2	0.2	66.8
racing movies	1	0.2	0.2	69.1
Rapping	1	0.2	0.2	69.3
rc cars	1	0.2	0.2	69.5
Ride motorcycle	1	0.2	0.2	74.6
running	1	0.2	0.2	74.7
science	1	0.2	0.2	74.9
sex	1	0.2	0.2	75
shopping	1	0.2	0.2	75.2
sight seeing	1	0.2	0.2	75.3
Singing	1	0.2	0.2	75.5
skate boarding	1	0.2	0.2	75.7
Social Life	1	0.2	0.2	80
Social networking	1	0.2	0.2	80.2

Social Welfare	1	0.2	0.2	80.3
space	1	0.2	0.2	80.5
super smash bros.	1	0.2	0.2	84
Surfing Internet	1	0.2	0.2	84.2
Swordsmanship	1	0.2	0.2	85.4
Synthesizers	1	0.2	0.2	85.6
track	1	0.2	0.2	88.8
Trans music concerts	1	0.2	0.2	89
Tutoring	1	0.2	0.2	89.6
Volleyball	1	0.2	0.2	98.1
walking	1	0.2	0.2	98.3
Watching Documentaries	1	0.2	0.2	98.4
watching games	1	0.2	0.2	98.6
Watching Youtube	1	0.2	0.2	99.2
work	1	0.2	0.2	99.4
Working on projects	1	0.2	0.2	99.5
Working out	1	0.2	0.2	99.7

Study 3 demographics

Student status

Year	Frequency	Percentage
Freshman	100	19.6%
Sophomore	100	19.6%
Junior	84	16.4%
Senior	110	21.5%
Masters/Graduate	95	18.6%
Ph.D.	22	4.3%

Age

Age	N	%
18-19	146	28.2
20-22	179	35
23-29	148	29
30+	38	7.8

How far participants live from campus

	Frequency	Percent
On-Campus dorm	172	33.7
Off-campus dorm (e.g. University Center)	11	2.2
Fraternity/Sorority house	11	2.2
Within 5 miles of campus	87	17
More than 5 miles from campus	230	45
Total	511	100

Days spent on campus per week

Days per week	Frequency	Percent
0	14	2.7
1	9	1.8
2	21	4.1
3	43	8.4
4	94	18.4
5	165	32.3
6	48	9.4
7	117	22.9
Total	511	100

Activity participation for Interest 1

	Frequency	Percent
Never	93	19.5
Less than once a month	77	16.1
Once a month	42	8.8
More than once a month	56	11.7
Weekly	64	13.4
More than once a week	67	14
Daily	79	16.5
Total	478	100

Activity participation for Interest 2

	Frequency	Percent
Never	101	21.1
Less than once a month	74	15.5
Once a month	48	10
More than once a month	65	13.6
Weekly	69	14.4
More than once a week	70	14.6
Daily	51	10.7
Total	478	100

Activity participation for Interest 3

	Frequency	Percent
Never	99	20.7
Less than once a month	76	15.9
Once a month	49	10.3
More than once a month	74	15.5
Weekly	57	11.9
More than once a week	70	14.6
Daily	53	11.1
Total	478	100

How successful do you feel the first activity was? * How many people actually came? Crosstabs

		How many people actually came?					Total
		Far too few	Too few	About right	Too many	Far too many	
How successful do you feel the first activity was?	Very unsuccessful	2	0	0	0	0	2
	Unsuccessful	2	3	2	1	0	8
	Unsure	0	7	14	1	0	22
	Successful	1	3	49	6	2	61
	Very Successful	0	1	11	2	1	15
	Total	5	14	76	10	3	108

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	70.490	16	.000
Likelihood Ratio	39.456	16	.001
Linear-by-Linear Association	23.205	1	.000
N of Valid Cases	108		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda Symmetric How successful do you feel the first activity was? Dependent		.101	.058	1.654	.098
		.106	.073	1.399	.162
	How many people actually came? Dependent	.094	.079	1.141	.254
Goodman and Kruskal tau	How successful do you feel the first activity was? Dependent	.101	.037		.000
	How many people actually came? Dependent	.147	.041		.000

How successful do you feel the first activity was? * Was there active participation? Crosstabs

		Was there active participation?					Total
		Far too little	Too little	About right	Too much	Far too much	
How successful do you feel the first activity was?	Very unsuccessful	2	0	0	0	0	2
	Unsuccessful	1	3	4	0	0	8
	Unsure	1	4	17	0	0	22
	Successful	0	5	49	4	3	61
	Very Successful	0	1	10	3	1	15
	Total	4	13	80	7	4	108

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	71.608	16	0
Likelihood Ratio	34.979	16	0.004
Linear-by-Linear Association	24.144	1	0

		Value	Asymp. Std. Error	Approx. T ^b	Approx. Sig.
Lambda Symmetric	How successful do you feel the first activity was? Dependent	.053	.036	1.427	.153
	Was there active participation? Dependent	.043	.029	1.427	.153
		.071	.049	1.427	.153
Goodman and Kruskal tau	How successful do you feel the first activity was? Dependent	.074	.024		.011
	Was there active participation? Dependent	.111	.033		.000

How successful do you feel the first activity was? * Based on the outcome of your first time organizing - did you attempt to organize again? Crosstabs

		Based on the outcome of your first time organizing - did you attempt to organize to [interest 1] again?			Total
		Yes, successfully	Yes, unsuccessfully	No	
How successful do you feel the first activity was?	Very unsuccessful	0	1	1	2
	Unsuccessful	5	1	2	8
	Unsure	11	3	8	22
	Successful	58	1	2	61
	Very Successful	14	0	1	15
	Total	88	6	14	108

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.387	8	0
Likelihood Ratio	32.278	8	0
Linear-by-Linear Association	19.013	1	0
N of Valid Cases	108		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda	Symmetric	.134	.050	2.384	.017
	How successful do you feel the first activity was? Dependent	.170	.073	2.185	.029
	Based on the outcome of your first time organizing - did you attempt to organize to [q8] again? Dependent	.050	.049	1.005	.315
Goodman and Kruskal tau	How successful do you feel the first activity was? Dependent	.117	.042		0
	Based on the outcome of your first time organizing - did you attempt to organize to [q8] again? Dependent	.237	.066		0

Success * Organize again (interest 2) Crosstabs

		Based on the outcome of your first time organizing - did you attempt to organize to [interest 2] again?			Total
		Yes, successfully	Yes, unsuccessfully	No	
How successful do you feel the first activity was?	Very unsuccessful	0	1	2	3
	Unsuccessful	3	1	1	5
	Unsure	12	6	6	24
	Successful	36	3	2	41
	Very Successful	9	0	0	9
Total		60	11	11	82

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.293	8	.002
Likelihood Ratio	25.510	8	.001
Linear-by-Linear Association	18.883	1	.000
N of Valid Cases	82		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda	Symmetric	.143	.060	2.121	.034
	How successful do you feel the first activity was? Dependent	.171	.092	1.728	.084
	Based on the outcome of your first time organizing - did you attempt to organize to [interest 2] again?	.091	.061	1.432	.152
Goodman and Kruskal tau	How successful do you feel the first activity was? Dependent	.093	.044		.000
	Based on the outcome of your first time organizing - did you attempt to organize to [interest 2] again? Dependent	.197	.054		.000

Success * Organize again (interest 3) Crosstabs

		Based on the outcome of your first time organizing - did you attempt to organize to [interest 3] again?			Total
		Yes, successfully	Yes, unsuccessfully	No	
How successful do you feel the first activity was?	Very unsuccessful	1	1	1	3
	Unsuccessful	2	0	3	5
	Unsure	10	3	4	17
	Successful	35	1	2	38
	Very Successful	10	0	2	12
Total		58	5	12	75

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.826	8	.005
Likelihood Ratio	19.339	8	.013
Linear-by-Linear Association	9.084	1	.003
N of Valid Cases	75		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda	Symmetric	.093	.067	1.306	.192
	How successful do you feel the first activity was? Dependent	.108	.081	1.279	.201
	Based on the outcome of your first time organizing - did you attempt to organize to [interest 3] again? Dependent	.059	.128	.448	.654
Goodman and Kruskal tau	How successful do you feel the first activity was? Dependent	.085	.040		.001
	Based on the outcome of your first time organizing - did you attempt to organize to [interest 3] again? Dependent	.175	.081		.001

Information overload, Interest 1

		On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations?					Total
		Never	Almost never	Sometimes	Almost always	Always	
How often do you participate in an activity with others on campus?	Never	40	18	22	4	1	85
	Less than once a month	20	25	21	2	2	70
	Once a month	7	9	11	7	1	35
	More than once a month	15	15	16	3	1	50
	Weekly	10	19	25	2	1	57
	More than once a week	2	22	26	6	2	58
	Daily	15	18	30	6	0	69
Total		109	126	151	30	8	424

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	56.827	24	.000
Likelihood Ratio	59.846	24	.000
Linear-by-Linear Association	16.636	1	.000
N of Valid Cases	424		

		Value	Asymp. Std. Error	Approx. T ^b	Approx. Sig.
Lambda	Symmetric	.067	.028	2.340	.019
	How often do you participate in an activity with others on campus? Dependent	.056	.030	1.827	.068
	On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.081	.037	2.128	.033
Goodman and Kruskal tau	How often do you participate in an activity with others on campus? Dependent	.024	.007		.000
	On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.041	.011		.000

Information overload, Interest 2

		On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations?					Total
		Never	Almost never	Sometimes	Almost always	Always	
How often do you participate in an activity with others on campus?	Never	41	17	30	4	1	93
	Less than once a month	16	20	29	1	2	68
	Once a month	9	15	12	7	0	43
	More than once a month	11	20	18	4	0	53
	Weekly	12	19	24	4	2	61
	More than once a week	10	20	26	6	1	63
	Daily	10	15	12	4	2	43
Total		109	126	151	30	8	424

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	41.218	24	.016
Likelihood Ratio	41.464	24	.015
Linear-by-Linear Association	8.034	1	.005
N of Valid Cases	424		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda	Symmetric	.043	.024	1.784	.074
	How often do you participate in an activity with others on campus? Dependent	.021	.021	.981	.326
	On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.070	.045	1.492	.136
Goodman and Kruskal tau	How often do you participate in an activity with others on campus? Dependent	.019	.006		.002
	On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.027	.010		.005

Information overload, Interest 3

		On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations?					Total
		Never	Almost never	Sometimes	Almost always	Always	
How often do you participate in an activity with others on campus?	Never	37	22	29	3	1	92
	Less than once a month	17	16	29	7	2	71
	Once a month	11	14	15	1	0	41
	More than once a month	10	21	26	7	0	64
	Weekly	11	21	12	3	2	49
	More than once a week	11	20	22	4	2	59
	Daily	12	12	18	5	1	48
Total		109	126	151	30	8	424

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.749	24	0.133
Likelihood Ratio	33.267	24	0.099
Linear-by-Linear Association	4.645	1	0.031
N of Valid Cases	424		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda	Symmetric	.036	.017	2.089	.037
	How often do you participate in an activity with others on campus? Dependent	.015	.011	1.390	.165
	On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.062	.035	1.714	.086
Goodman and Kruskal tau	How often do you participate in an activity with others on campus? Dependent	.014	.005		.049
	On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.022	.009		.050

		On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations?					Total
		Never	Almost never	Sometimes	Almost always	Always	
Do you ever organize a social activity on campus with people other than your close friends?	Yes	23	34	52	16	4	129
	No	86	92	99	14	4	295
Total		109	126	151	30	8	424

	Value	d.f.	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.215	4	0.004
Likelihood Ratio	14.751	4	0.005
Linear-by-Linear Association	13.661	1	.000
N of Valid Cases	424		

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Lambda	Symmetric	.005	.015	.324	.746
	Do you ever organize a social activity on campus with people other than your close friends to [q8], [q9], or [q10]? Example: organizing a Bollywood dance festival, or playing pick-up basketball with people in the gym) Dependent	.016	.047	.324	.746
	On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations?	0.000	0.000	.	.
Goodman and Kruskal tau	Do you ever organize a social activity on campus with people other than your close friends to [q8], [q9], or [q10]? Example: organizing a Bollywood dance festival, or playing pick-up basketball with people in the gym) Dependent	.036	.019		.004
	On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations? Dependent	.008	.005		.011

A list of participant's top 20 frequently mentioned interests (from the top 3 interest question), and the number of times they were mentioned by participants who want to find others.

Interests	Frequency	Appears in wish list	Frequency in wish list
Video Games	64	X	4
Reading	47	X	3
Soccer	36	X	5
Movies	34	X	7
Music	31	X	4
Technology	22	X	2
Programming	19	X	2
Cricket	15		
Cooking	13		
Photography	12	X	2
Tennis	10	X	6
Watching TV	9		
Badminton	8	X	4
Chess	8		
Computers	8		
Biking	7		
Drawing	7		
Swimming	7	X	4
Travelling	7		

Reasons participants do not organize

For what reasons do you not organize for your interest?	
Reason	Frequency
I'm not the type of person to lead	57
I don't know other people who share my interests	114
I don't know where to find others who share my interest	113
It is too much effort to find other people	88
It is too much effort to get people to show up together	113
I already participate in a group for this interest	65
I am not motivated to start my own group	77
Other	51

How do you find out about activities on campus?

Activity	N
Posters in campus center	245
Flyers on walls around campus	263
Email	259
Facebook	129
Meetup.com	5
Instagram	4
text	1
Twitter	1
walk past them	1

On social media sites, (e.g. Facebook) how frequently have you felt overloaded with too many activity recommendations?

	Frequency	Percent
Never	109	25.7
Almost never	126	29.7
Sometimes	151	35.6
Almost always	30	7.1
Always	8	1.9
Total	424	100.0

How often do you organize social activities on campus to interest1?

	N	%
Never	34	21.9
Less than once a month	31	20.0
Once a month	23	14.8
More than once a month	24	15.5
Weekly	23	14.8
More than once a week	16	10.3
Daily	4	2.6
Total	155	100.0

How often do you organize social activities on campus to interest2?

	N	%
Never	49	35.5
Less than once a month	25	18.1
Once a month	12	8.7
More than once a month	23	16.7
Weekly	16	11.6
More than once a week	10	7.2
Daily	3	2.2
Total	138	100.0

How often do you organize social activities on campus to interest3?

	Frequency	Percent
Never	56	42.7
Less than once a month	22	16.8
Once a month	11	8.4
More than once a month	18	13.7
Weekly	10	7.6
More than once a week	4	3.1
Daily	10	7.6
Total	131	100.0

APPENDIX E

STUDY 4 CONTENT

In this Appendix:

- (1) Survey Guide**
- (2) Images of 25 Prototype Conditions**
- (3) Statistical Analysis**

Survey Guide

Independent Variables:

- Variations in the number of interested people visible on the GUI.
- Variations in the amount of chat activity visible on the GUI.
- Variations in the number of activity suggestions visible on the GUI.

Dependent Variables:

- Likelihood a participant will manipulate one of the following GUI controls:
 1. Interested People Notification button
 2. Chat Activity Notification button
 3. Chat button
 4. Activity Suggestion Notification button
 5. Existing Activity button
 6. Suggest Activity button

Method

Participant Requirements:

- Must be between 18 and 33 years of age.
- Must be a U.S. resident.
- Must own a smartphone (Android, iPhone, Windows phone or equivalent.)
- Must be able to specify at least three group-activity based interests.

Survey Procedure:

- Participants are directed to complete the following 3-part in-take questionnaire repeating part 2 a total of three times, each for a different social activity:

In-Take Questionnaire Part 1a: Demographic Essentials

Question	Answer Format
What is your age?	Multiple Choice, Dropdown list <ul style="list-style-type: none"> • Less than 18 [reject participant] • 18 – 33 • More than 33 [reject participant]
What type of phone do you use?	Multiple Choice, Dropdown menu: <ul style="list-style-type: none"> • iPhone • Android • Windows phone • Basic phone [reject participant] • None of the above [reject participant]
What is your gender?	Multiple Choice, Radio button: <ul style="list-style-type: none"> • Male • Female • Other • Prefer not to say
What is your highest level of education?	Multiple Choice, Radio button: <ul style="list-style-type: none"> • Some High School • High School Diploma or GED • Some College • Vocational School • Associate’s Degree • Bachelor’s Degree • Master’s Degree • Doctorate Degree
What is your current study status?	Multiple Choice, Radio button: <ul style="list-style-type: none"> • Full-time student • Part-time student • Not a student
What is your current employment status?	Multiple Choice, Radio button: <ul style="list-style-type: none"> • Full time employed • Part time employed • Unemployed

In-Take Questionnaire Part 1b: Social Activities

We define “social activity” as an activity that you really care about doing <i>with other people</i> . List three social activities you would like to do that requires at least two people. Please be specific.	3 Textboxes, 15-character limit
Where do you, or would you like to do, this social activity? Please list a specific geographic location (such as a town name.)	3 Textboxes, 12-character limit

In-Take Questionnaire Part 2: Social Activity Specifics

Question	Answer Format
How often do you currently participate in this social activity with others?	3 Radio button sets: <ul style="list-style-type: none"> • Never • Less than once a month • Monthly • More than once a month • Weekly • More than once a week • Daily
How often are you the organizer of this social activity?	3 Radio button sets: <ul style="list-style-type: none"> • Most of the time • Sometimes • Never
How often would you LIKE to participate in this social activity with others?	3 Radio button sets: <ul style="list-style-type: none"> • Never [reject participant if selected for all three activities] • Less than once a month • Monthly • More than once a month • Weekly • More than once a week • Daily
What is your level of interest in this social activity?	3 Radio button sets: <ul style="list-style-type: none"> • Very Low • Below Average • Average • Above Average • Very High
The last few times you participated in this social activity, how many participants were there?	3 Radio button sets: <ul style="list-style-type: none"> • I have yet to participate • Too few participants • Just the right amount • Too many participants • Participant numbers varied greatly
Are you interested in finding additional people in your area to do this social activity with?	3 Radio button sets: <ul style="list-style-type: none"> • Yes • No
How long have you been doing this social activity?	3 Radio button sets: <ul style="list-style-type: none"> • I have yet to participate • More than 2 years • Between 1 – 2 years

	<ul style="list-style-type: none"> • Between 2 – 6 months • Less than 1 month
In your opinion, when you do this social activity, what is the minimum number of people that can participate?	3 Textboxes, numerical input
In your opinion, typically when you do this social activity, what is the maximum number of people that can participate?	3 Textboxes, numerical input
In your opinion, typically when you do this social activity, what is the ideal number of people that would participate?	3 Textboxes, numerical input

In-Take Questionnaire Part 3: Leadership

Question	Answer Format
Most of the time, I prefer being a leader rather than a follower when working in a group	15 Radio button sets: <ul style="list-style-type: none"> • Strongly Disagree • Disagree • Neither Agree nor Disagree • Agree • Strongly Agree
I am the type of person who is not interested in leading others	
I am definitely not a leader by nature	
I am the type of person who likes to be in charge of others	
I usually want to be the leader in the groups that I work in	
I am only interested to lead a group if there are clear advantages for me.	
I will never agree to lead if I cannot see any benefits from accepting that role.	
I would only agree to be a group leader if I know I can benefit from that role.	
I would agree to lead others even if there are no special rewards or benefits with that role.	
I have more of my own problems to worry about than to be concerned about the rest of the group.	
I feel that I have a duty to lead others if I am asked.	
I agree to lead whenever I am asked or nominated by the other members.	
I was taught to believe in the value of leading others.	
It is appropriate for people to accept leadership roles of positions when they are asked.	
It is an honor and privilege to be asked to lead.	

- Following successful completion of the in-take survey, one of the three sets of Social Activity responses (picked by analyzing expressed interest level in doing it with others and entry order) is used to generate the following set of variables:

Screen Generation Variables

Name	Source	Description
<i>Activity</i>	In-take survey	A social activity of interest
<i>Place</i>	In-take survey	A location zone in which to do that social activity
<i>N_under</i>	$N_{min} - 1$	Too few people to do that social activity.
<i>N_min</i>	In-take survey	The minimum number of people required to do that social activity.
<i>N_ideal</i>	In-take survey	The ideal number of people to do that social activity.
<i>N_max</i>	In-take survey	The maximum number of people capable of doing that social activity.
<i>N_over</i>	$N_{max} * 1.5$	Too many people to do that social activity.
<i>A_members</i>	N_{ideal} or N if $N < N_{ideal}$	The number of people shown as being involved in a displayed existing activity suggestion.

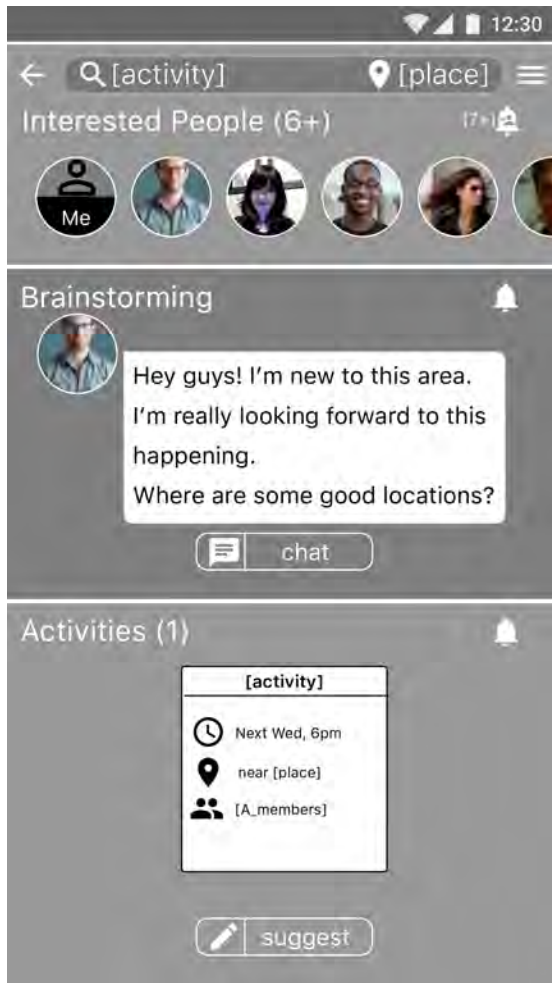
- These variables are then used to generate the following table of variable combinations:

Potential Screen Conditions

Condition	People (<i>N</i>)	Brainstorming (<i>C</i>)	Activities (<i>A</i>)
01	No people section displayed	0	0
02		1	0
03		0	1
04		1	1
05	1	0	0
06	<i>N_under</i> (2+)	0	0
07		1	0
08		0	1
09		1	1
10	<i>N_min</i>	0	0
11		1	0
12		0	1
13		1	1
14	<i>N_ideal</i>	0	0
15		1	0
16		0	1
17		1	1
18	<i>N_max</i>	0	0
19		1	0
20		0	1
21		1	1
22	<i>N_over</i>	0	0
23		1	0
24		0	1
25		1	1

- From this collection of variable combinations, a single set is selected and then used to generate a simulated screenshot of the Group Coalescing GUI:

Group Coalescing GUI Elements




This GUI is presented to the participant for a fixed minimum amount of time (enforced via a built-in delay function – i.e. preventing premature advancement.) Then, after the participant indicates they are ready to continue, the same GUI is presented to them multiple times, each time with a specific control feature visually highlighted along with a forced-choice question asking them how they might interact with it.

GUI Interaction Questions

Element	Question	Answer Format
#1	Notify me when...	Radio button set (customized to illustrate different button states): <ul style="list-style-type: none"> • A new person is interested. • [insert number here (N_ideal default value)] people are interested. • Do not notify me.
#2	Notify me when...	Radio button set (customized to illustrate different button states): <ul style="list-style-type: none"> • There are new posts in Brainstorming. • Do not notify me.
#3	Would you like to post a message in Brainstorming?	Radio button set: <ul style="list-style-type: none"> • No, I wouldn't. • Yes, I would.

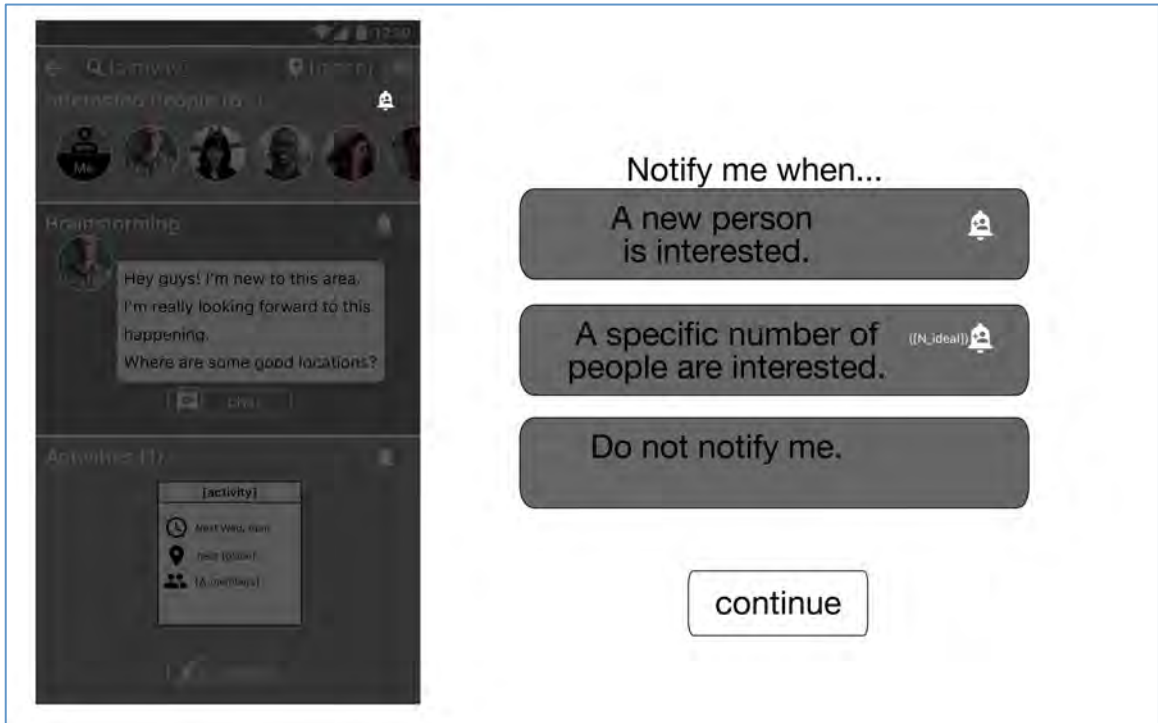
#4	Notify me when...	Radio button set (customized to illustrate different button states): <ul style="list-style-type: none"> • There are new activity suggestions. • Do not notify me.
#5	Would you consider doing this? <i>[Question only applicable to Conditions where existing suggested activity is present (A=1)]</i>	Radio button set: <ul style="list-style-type: none"> • No, I wouldn't. • Yes, I would.
#6	Would you suggest a time and place for doing an activity?	Radio button set: <ul style="list-style-type: none"> • No, I wouldn't. • Yes, I would.

Interaction Question Mockups



Here is a search result based on one of your listed activities. Please take time to look it over before answering the following questions about how you would interact with it by clicking the button below.

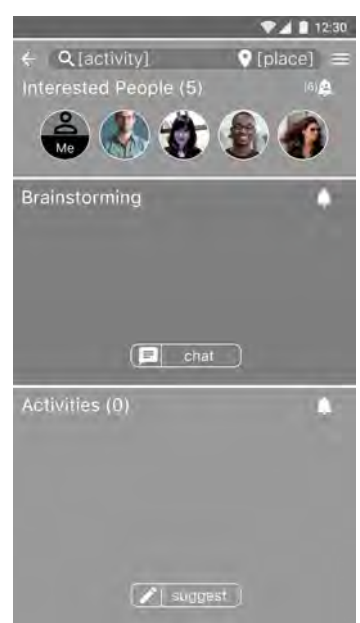
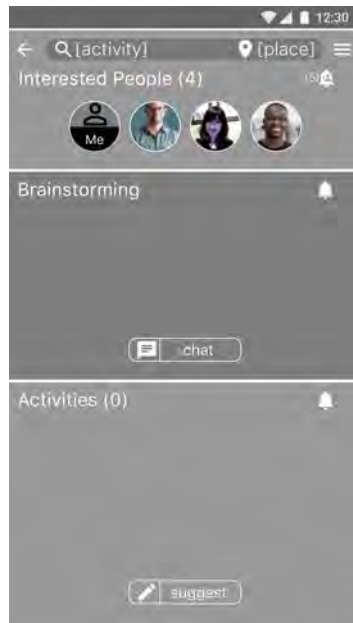
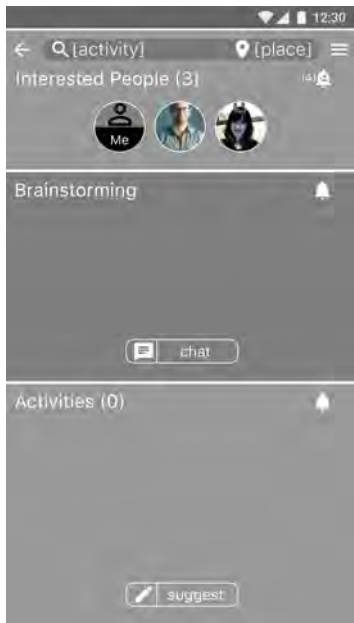
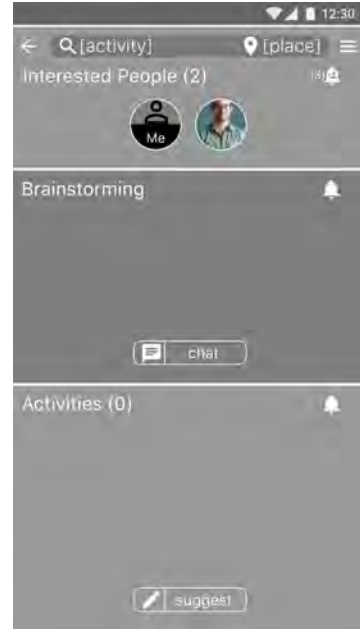
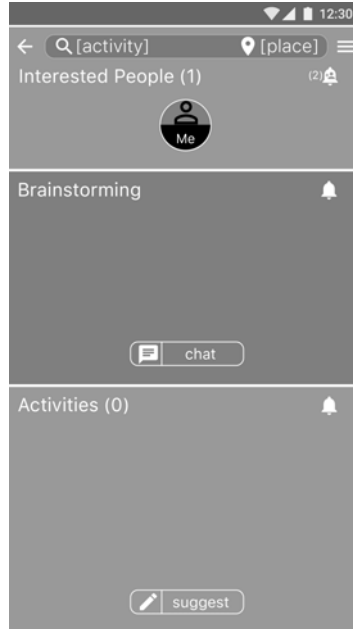
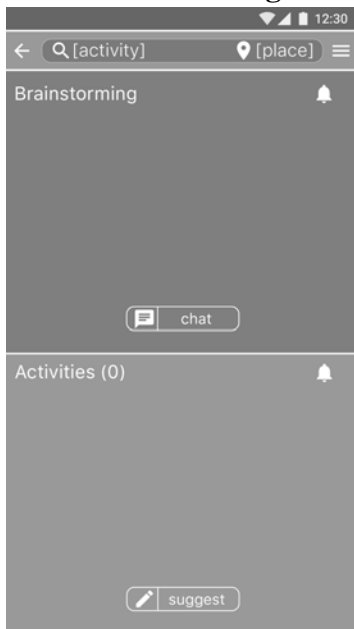
continue (...5)

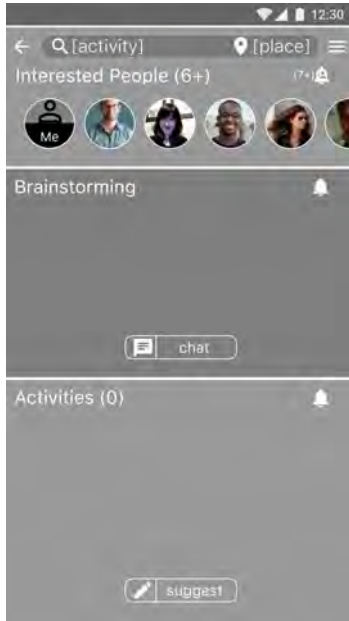


- Once the participant reaches the end of this series of questions they are finished with the survey.

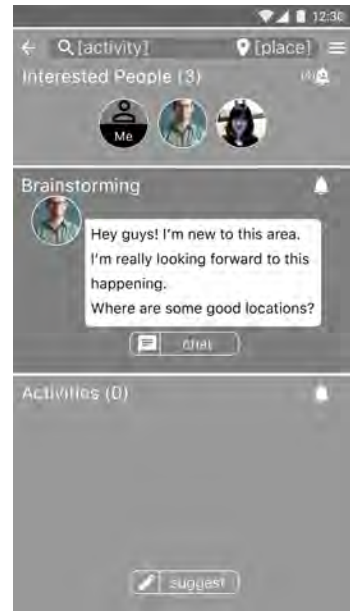
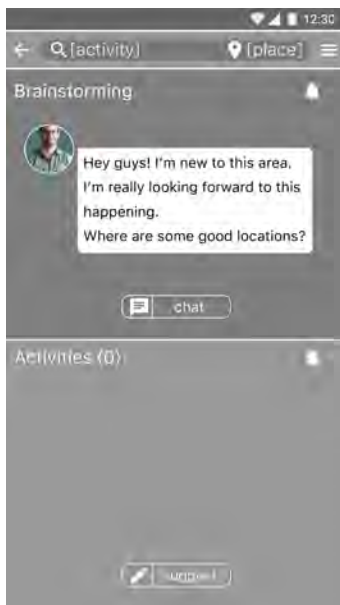
Images of 25 Prototype Conditions

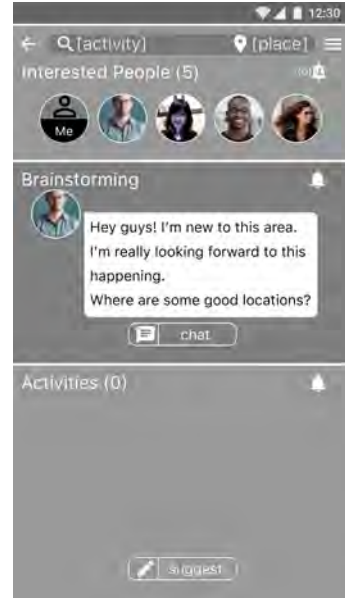
Both Brainstorming and Activities features not visible



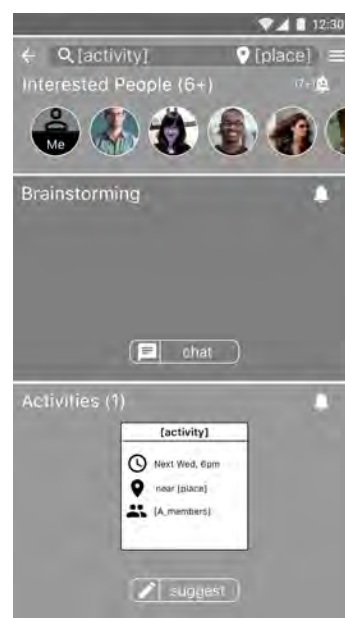
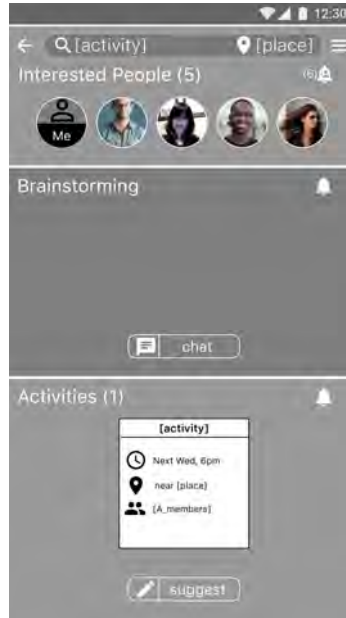
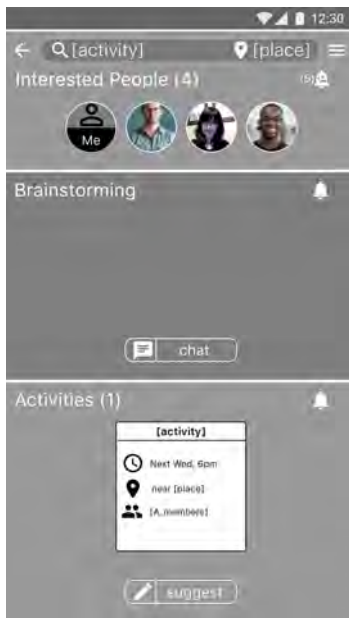
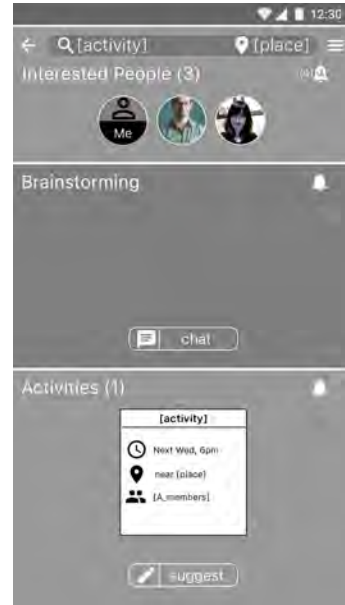
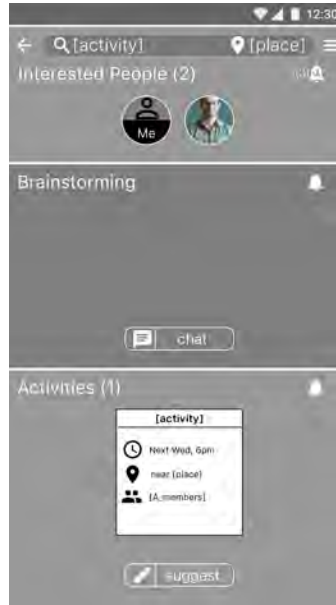


Brainstorming feature visible

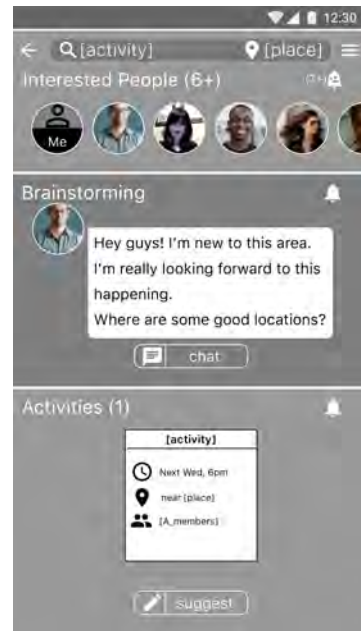




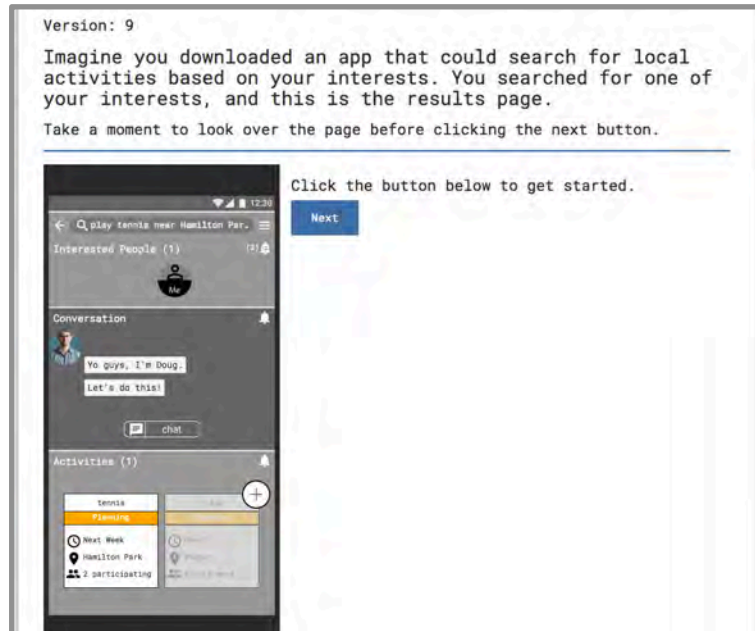
Activities feature visible



Both Brainstorming and Activities features visible



Images of Prototype Questions




Scenario given to participants

Version: 9

Imagine you downloaded an app that could search for local activities based on your interests. You searched for one of your interests, and this is the results page.

Take a moment to look over the page before clicking the next button.



Take a look at the Notify icon. When would you want to be notified about people interested in your interest?

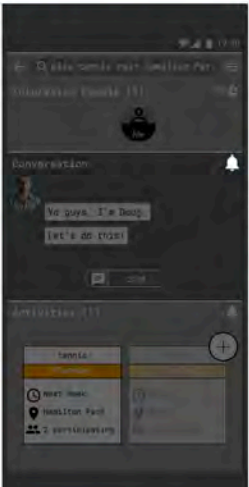
- When a new person is interested
- When a specific number of people are interested
- Do not notify me

Notify icon usage

Version: 9

Imagine you downloaded an app that could search for local activities based on your interests. You searched for one of your interests, and this is the results page.

Take a moment to look over the page before clicking the next button.



When would you want to be notified of updates in the brainstorming section?

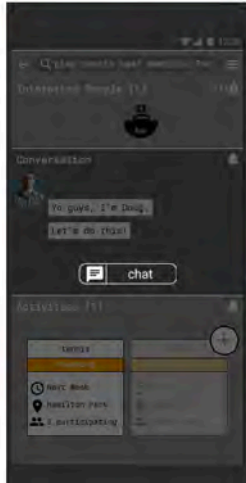
- When there are new posts in Brainstorming
- Do not notify me

Notification of brainstorming activity

Version: 9

Imagine you downloaded an app that could search for local activities based on your interests. You searched for one of your interests, and this is the results page.

Take a moment to look over the page before clicking the next button.



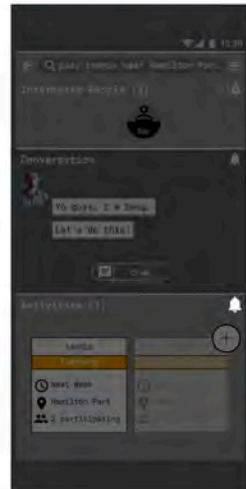
Would you post a message in Brainstorming?

Yes, I would

No I wouldn't

Post a message to brainstorming

Take a moment to look over the page before clicking the next button.

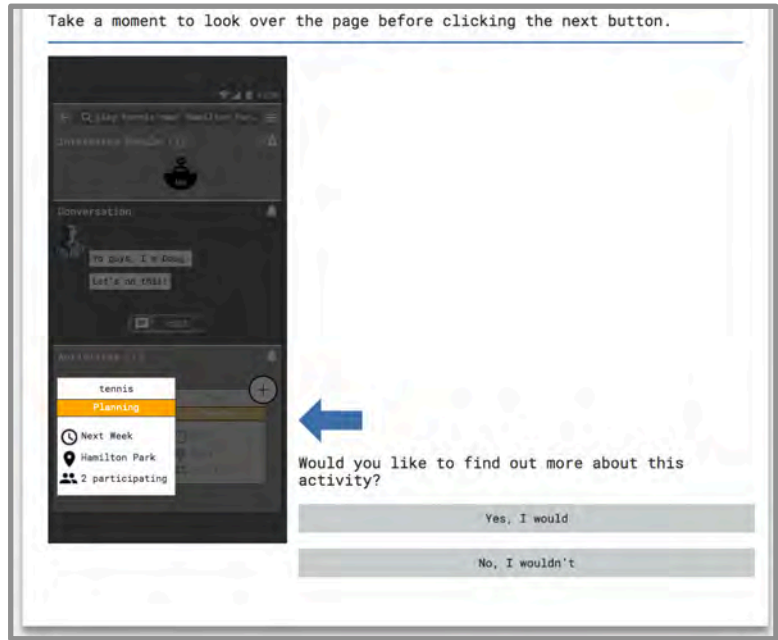


When would you want to be notified of suggestions in the activities section?

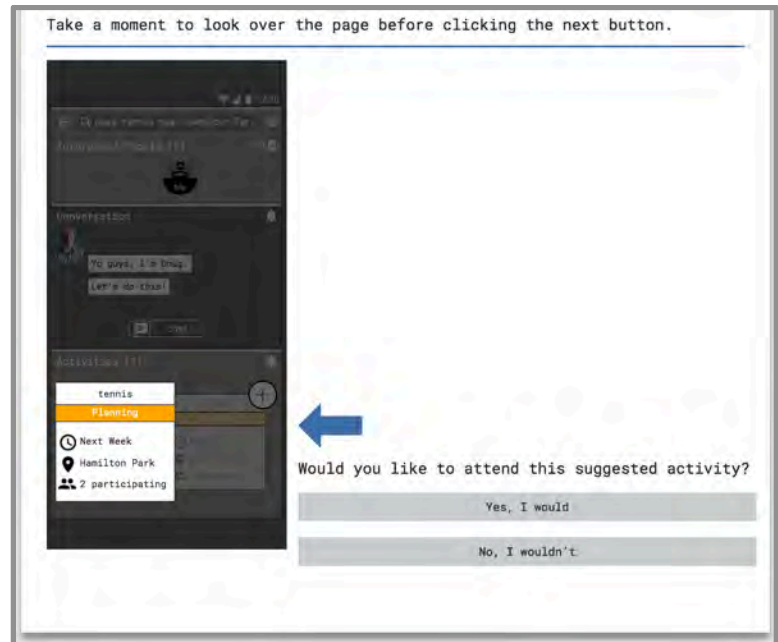
When there are new suggestions to do this activity

Do not notify me

Notification of activity suggestions

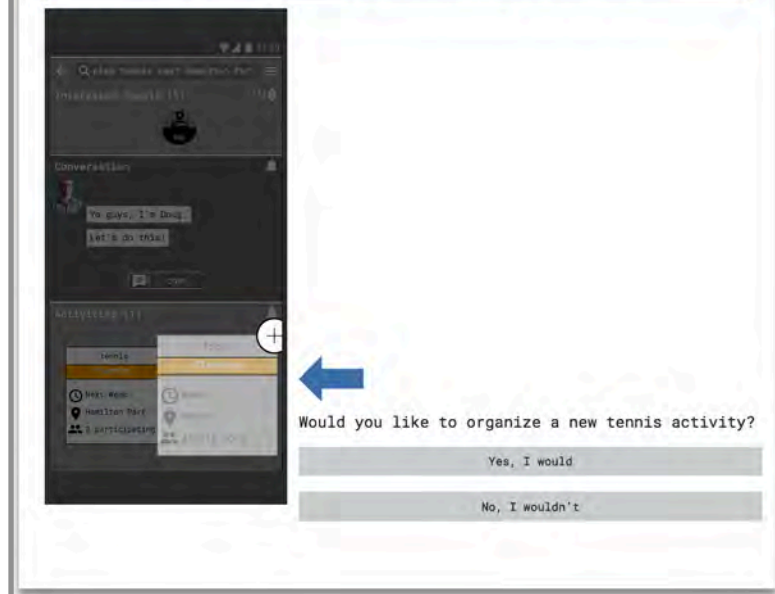


Found out more about activity



Attend activity

Take a moment to look over the page before clicking the next button.



Organize activity

Statistics and full models

H1: The greater the number of people in the “Interested People” section, and the more often one has organized activities for the respective interest in the past, the more likely one will be to initiate collective action.

Categorical Variables Codings

		Frequency	Parameter coding		
			(1)	(2)	(3)
Organizer rebin	.00	197	0.000	0.000	0.000
	1.00	123	1.000	0.000	0.000
	2.00	249	0.000	1.000	0.000
	3.00	258	0.000	0.000	1.000
How many other people do you know	.00	117	0.000	0.000	0.000
	1.00	232	1.000	0.000	0.000
	2.00	260	0.000	1.000	0.000
	3.00	218	0.000	0.000	1.000
Level of interest	1.00	468	0.000		
	2.00	359	1.000		
No others present	.00	73	0.000		
	1.00	754	1.000		
Gender	female	473	0.000		
	male	354	1.000		

Block 0

Classification Table

Observed			Predicted		Percentage Correct
			'wouldYouOrganize'		
			.00	1.00	
Step 0	'wouldYouOrganize'	.00	0	273	0.0
		1.00	0	554	100.0
Overall Percentage					67.0

Variables in the Equation

	B	S.E.	Wald	d.f.
Step 0 Constant	.708	.074	91.592	1

Variables not in the Equation

			Score	d.f.	Sig.
Step 0	Variables	Gender(1)	5.617	1	.018
		Age	2.746	1	.098
		Levelofinterest(1)	8.472	1	.004
		organizerrebin	58.066	3	.000
		organizerrebin(1)	3.813	1	.051
		organizerrebin(2)	.204	1	.651
		organizerrebin(3)	47.472	1	.000
		HowmanyotherpeopledoyouknowRECODED	10.491	3	.015
		HowmanyotherpeopledoyouknowRECODED(1)	5.629	1	.018
		HowmanyotherpeopledoyouknowRECODED(2)	6.356	1	.012
		HowmanyotherpeopledoyouknowRECODED(3)	.694	1	.405
		participationdifferential	1.522	1	.217
		nooterspresent(1)	.652	1	.419
		numPeopleShown	2.105	1	.147
		numPeopleShown * organizerrebin	20.001	3	.000
		numPeopleShown by organizerrebin(1)	.114	1	.736
		numPeopleShown by organizerrebin(2)	2.959	1	.085
		numPeopleShown by organizerrebin(3)	15.219	1	.000
		Overall Statistics	83.100	15	.000

Block 1: Method = Backward Stepwise (Wald)

Omnibus Tests of Model Coefficients

		Chi-square	d.f.	Sig.
Step 1	Step	98.671	15	.000
	Block	98.671	15	.000
	Model	98.671	15	.000
Step 2	Step	-2.973	1	.085
	Block	95.698	14	.000
	Model	95.698	14	.000
Step 3	Step	-2.292	3	.514
	Block	93.406	11	.000
	Model	93.406	11	.000
Step 4	Step	-1.090	1	.297
	Block	92.316	10	.000
	Model	92.316	10	.000
Step 5	Step	-1.930	1	.165
	Block	90.386	9	.000
	Model	90.386	9	.000
Step 6	Step	-5.317	3	.150
	Block	85.068	6	.000
	Model	85.068	6	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	950.388	.112	.156
2	953.361	.109	.152
3	955.653	.107	.149
4	956.743	.106	.147
5	958.673	.104	.144
6	963.990	.098	.136

Classification Table

Observed			Predicted		
			'wouldYouOrganize'		Percentage Correct
			.00	1.00	
Step 1	'wouldYouOrganize'	.00	73	200	26.7
		1.00	55	499	90.1
	Overall Percentage				69.2
Step 2	'wouldYouOrganize'	.00	72	201	26.4
		1.00	57	497	89.7
	Overall Percentage				68.8
Step 3	'wouldYouOrganize'	.00	67	206	24.5
		1.00	58	496	89.5
	Overall Percentage				68.1
Step 4	'wouldYouOrganize'	.00	68	205	24.9
		1.00	54	500	90.3
	Overall Percentage				68.7
Step 5	'wouldYouOrganize'	.00	64	209	23.4
		1.00	57	497	89.7
	Overall Percentage				67.8
Step 6	'wouldYouOrganize'	.00	70	203	25.6
		1.00	57	497	89.7
	Overall Percentage				68.6

Variables in the Equation

	B	S.E.	Wald	d.f.
Step 1				
Gender(1)	.347	.162	4.573	1
Age	-.023	.020	1.328	1
Levelofinterest(1)	.385	.164	5.525	1
organizerrebin			36.282	3
organizerrebin(1)	.538	.278	3.742	1
organizerrebin(2)	.588	.266	4.887	1
organizerrebin(3)	1.680	.283	35.294	1
HowmanyotherpeopledoyouknowRECODED			4.981	3
HowmanyotherpeopledoyouknowRECODED(1)	-.323	.254	1.619	1
HowmanyotherpeopledoyouknowRECODED(2)	.118	.260	.205	1

	HowmanyotherpeopledoyouknowRECODED(3)	-.138	.270	.260	1
	participationdifferential	-.006	.007	.584	1
	nooterspresent(1)	-.438	.297	2.169	1
	numPeopleShown	.026	.012	4.991	1
	numPeopleShown * organizerrebin			3.467	3
	numPeopleShown by organizerrebin(1)	-.021	.015	1.873	1
	numPeopleShown by organizerrebin(2)	.014	.023	.400	1
	numPeopleShown by organizerrebin(3)	-.009	.025	.124	1
	Constant	.652	.673	.940	1
Step 2	Gender(1)	.335	.162	4.284	1
	Age	-.022	.020	1.169	1
	Levelofinterest(1)	.368	.163	5.093	1
	organizerrebin			37.163	3
	organizerrebin(1)	.540	.278	3.781	1
	organizerrebin(2)	.568	.265	4.589	1
	organizerrebin(3)	1.694	.282	36.017	1
	HowmanyotherpeopledoyouknowRECODED			5.140	3
	HowmanyotherpeopledoyouknowRECODED(1)	-.321	.254	1.601	1
	HowmanyotherpeopledoyouknowRECODED(2)	.124	.260	.228	1
	HowmanyotherpeopledoyouknowRECODED(3)	-.157	.269	.340	1
	nooterspresent(1)	-.436	.297	2.144	1
	numPeopleShown	.026	.012	4.939	1
	numPeopleShown * organizerrebin			3.581	3
	numPeopleShown by organizerrebin(1)	-.020	.015	1.781	1
	numPeopleShown by organizerrebin(2)	.017	.023	.542	1
	numPeopleShown by organizerrebin(3)	-.008	.025	.114	1
	Constant	.602	.671	.805	1
Step 3	Gender(1)	.342	.162	4.470	1
	Age	-.021	.020	1.085	1
	Levelofinterest(1)	.364	.162	5.018	1
	organizerrebin			51.761	3
	organizerrebin(1)	.402	.247	2.652	1
	organizerrebin(2)	.671	.211	10.109	1
	organizerrebin(3)	1.644	.235	49.101	1
	HowmanyotherpeopledoyouknowRECODED			5.268	3
	HowmanyotherpeopledoyouknowRECODED(1)	-.325	.253	1.650	1
	HowmanyotherpeopledoyouknowRECODED(2)	.127	.259	.239	1

	HowmanyotherpeopledoyouknowRECODED(3)	-.149	.268	.307	1
	nooterspresent(1)	-.423	.297	2.032	1
	numPeopleShown	.024	.008	8.415	1
	Constant	.575	.659	.762	1
Step 4	Gender(1)	.341	.162	4.441	1
	Levelofinterest(1)	.363	.162	5.005	1
	organizerrebin			53.724	3
	organizerrebin(1)	.418	.246	2.889	1
	organizerrebin(2)	.692	.210	10.848	1
	organizerrebin(3)	1.669	.233	51.166	1
	HowmanyotherpeopledoyouknowRECODED			5.310	3
	HowmanyotherpeopledoyouknowRECODED(1)	-.346	.252	1.890	1
	HowmanyotherpeopledoyouknowRECODED(2)	.102	.257	.156	1
	HowmanyotherpeopledoyouknowRECODED(3)	-.172	.267	.416	1
	nooterspresent(1)	-.404	.296	1.870	1
	numPeopleShown	.025	.008	8.653	1
	Constant	-.009	.346	.001	1
Step 5	Gender(1)	.354	.161	4.832	1
	Levelofinterest(1)	.348	.162	4.638	1
	organizerrebin			53.468	3
	organizerrebin(1)	.384	.245	2.468	1
	organizerrebin(2)	.661	.208	10.060	1
	organizerrebin(3)	1.655	.233	50.620	1
	HowmanyotherpeopledoyouknowRECODED			5.286	3
	HowmanyotherpeopledoyouknowRECODED(1)	-.335	.251	1.776	1
	HowmanyotherpeopledoyouknowRECODED(2)	.116	.257	.205	1
	HowmanyotherpeopledoyouknowRECODED(3)	-.152	.266	.325	1
	numPeopleShown	.022	.008	7.808	1
	Constant	-.355	.235	2.290	1
Step 6	Gender(1)	.343	.160	4.598	1
	Levelofinterest(1)	.337	.160	4.431	1
	organizerrebin			56.158	3
	organizerrebin(1)	.382	.238	2.566	1
	organizerrebin(2)	.662	.201	10.858	1
	organizerrebin(3)	1.660	.226	53.762	1
	numPeopleShown	.023	.008	8.531	1
	Constant	-.455	.183	6.160	1

Variables not in the Equation

			Score	d.f.	Sig.
Step 2	Variables	participationdifferential	1.233	1	.267
	Overall Statistics		1.233	1	.267
Step 3	Variables	participationdifferential	1.283	1	.257
		numPeopleShown * organizerrebin	2.712	3	.438
		numPeopleShown by organizerrebin(1)	1.955	1	.162
		numPeopleShown by organizerrebin(2)	1.079	1	.299
		numPeopleShown by organizerrebin(3)	.130	1	.718
	Overall Statistics		3.931	4	.415
Step 4	Variables	Age	1.086	1	.297
		participationdifferential	1.219	1	.270
		numPeopleShown * organizerrebin	2.613	3	.455
		numPeopleShown by organizerrebin(1)	1.896	1	.169
		numPeopleShown by organizerrebin(2)	.942	1	.332
		numPeopleShown by organizerrebin(3)	.172	1	.679
	Overall Statistics		5.025	5	.413
Step 5	Variables	Age	.917	1	.338
		participationdifferential	1.230	1	.267
		nooterspresent(1)	1.883	1	.170
		numPeopleShown * organizerrebin	2.627	3	.453
		numPeopleShown by organizerrebin(1)	1.883	1	.170
		numPeopleShown by organizerrebin(2)	.888	1	.346
		numPeopleShown by organizerrebin(3)	.227	1	.634
	Overall Statistics		6.857	6	.334
Step 6	Variables	Age	.935	1	.334
		HowmanyotherpeopledoyouknowRECODED	5.312	3	.150
		HowmanyotherpeopledoyouknowRECODED(1)	3.793	1	.051
		HowmanyotherpeopledoyouknowRECODED(2)	3.321	1	.068
		HowmanyotherpeopledoyouknowRECODED(3)	.134	1	.715
		participationdifferential	1.265	1	.261
		nooterspresent(1)	1.857	1	.173
		numPeopleShown * organizerrebin	2.680	3	.444
		numPeopleShown by organizerrebin(1)	1.813	1	.178
		numPeopleShown by organizerrebin(2)	.984	1	.321
		numPeopleShown by organizerrebin(3)	.277	1	.599
		Overall Statistics		11.978	9

H2: Above the minimum number of people necessary for an activity to occur, the greater the number of people in the “Interested People” section, the less likely one will be to initiate collective action.

Categorical Variables Codings

		Frequency	Parameter coding		
			(1)	(2)	(3)
organizerrebin	.00	161	0.000	0.000	0.000
	1.00	97	1.000	0.000	0.000
	2.00	211	0.000	1.000	0.000
	3.00	214	0.000	0.000	1.000
HowmanyotherpeopledoyouknowRECODED	.00	96	0.000	0.000	0.000
	1.00	196	1.000	0.000	0.000
	2.00	221	0.000	1.000	0.000
	3.00	170	0.000	0.000	1.000
Levelofinterest	1.00	383	0.000		
	2.00	300	1.000		
activity_suggestion	.00	348	0.000		
	1.00	335	1.000		
no_brainstorming	.00	351	0.000		
	1.00	332	1.000		
Gender	female	387	0.000		
	male	296	1.000		

Block 0: Beginning Block

Classification Table

Observed		Predicted			
		'wouldYouOrganize'		Percentage Correct	
		.00	1.00		
Step 0	'wouldYouOrganize'	.00	0	224	0.0
		1.00	0	459	100.0
	Overall Percentage				67.2

Variables in the Equation

	B	S.E.	Wald	d.f.	Sig.	Exp(B)
Step 0 Constant	.717	.082	77.476	1	.000	2.049

Variables not in the Equation

	Score	d.f.	Sig.
Step 0 Variables Gender(1)	3.320	1	.068
Age	2.366	1	.124
Levelofinterest(1)	6.387	1	.011
organizerrebin	40.613	3	.000
organizerrebin(1)	2.087	1	.149
organizerrebin(2)	.449	1	.503
organizerrebin(3)	34.000	1	.000

HowmanyotherpeopledoyouknowRECODED	11.551	3	.009
HowmanyotherpeopledoyouknowRECODED(1)	6.110	1	.013
HowmanyotherpeopledoyouknowRECODED(2)	6.364	1	.012
HowmanyotherpeopledoyouknowRECODED(3)	1.176	1	.278
participationdifferential	1.632	1	.201
distanceFromMin	1.719	1	.190
brainstorming(1)	.995	1	.319
activity_suggestion(1)	.020	1	.887
distanceFromMin by brainstorming(1)	.543	1	.461
distanceFromMin by activity_suggestion(1)	.393	1	.531
Overall Statistics	62.829	15	.000

Block 1: Method = Backward Stepwise (Wald)

Omnibus Tests of Model Coefficients

		Chi-square	d.f.	Sig.
Step 1	Step	81.294	15	.000
	Block	81.294	15	.000
	Model	81.294	15	.000
Step 2	Step	-.376	1	.540
	Block	80.918	14	.000
	Model	80.918	14	.000
Step 3	Step	-.420	1	.517
	Block	80.498	13	.000
	Model	80.498	13	.000
Step 4	Step	-3.290	1	.070
	Block	77.208	12	.000
	Model	77.208	12	.000
Step 5	Step	-1.222	1	.269
	Block	75.985	11	.000
	Model	75.985	11	.000
Step 6	Step	-1.909	1	.167
	Block	74.076	10	.000
	Model	74.076	10	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	783.013	.112	.156
2	783.389 ^b	.112	.156
3	783.808 ^b	.111	.155
4	787.099 ^b	.107	.149
5	788.321 ^b	.105	.147
6	790.230 ^b	.103	.143

Classification Table

Observed	Predicted	
	'wouldYouOrganize'	Percentage Correct

		.00	1.00		
Step 1	'wouldYouOrganize'	.00	66	158	29.5
		1.00	45	414	90.2
	Overall Percentage				70.3
Step 2	'wouldYouOrganize'	.00	63	161	28.1
		1.00	47	412	89.8
	Overall Percentage				69.5
Step 3	'wouldYouOrganize'	.00	60	164	26.8
		1.00	47	412	89.8
	Overall Percentage				69.1
Step 4	'wouldYouOrganize'	.00	60	164	26.8
		1.00	48	411	89.5
	Overall Percentage				69.0
Step 5	'wouldYouOrganize'	.00	60	164	26.8
		1.00	50	409	89.1
	Overall Percentage				68.7
Step 6	'wouldYouOrganize'	.00	65	159	29.0
		1.00	47	412	89.8
	Overall Percentage				69.8

Variables in the Equation

	B	S.E.	Wald	d.f.	Sig.	Exp(B)
Step 1						
Gender(1)	.313	.179	3.069	1	.080	1.367
Age	-.026	.022	1.426	1	.232	.974
Levelofinterest(1)	.363	.181	4.018	1	.045	1.438
organizerrebin			36.101	3	.000	
organizerrebin(1)	.349	.278	1.580	1	.209	1.418
organizerrebin(2)	.622	.233	7.110	1	.008	1.863
organizerrebin(3)	1.499	.257	34.087	1	.000	4.475
HowmanyotherpeopledoyouknowRECODED			5.980	3	.113	
HowmanyotherpeopledoyouknowRECODED(1)	-.217	.277	.614	1	.433	.805
HowmanyotherpeopledoyouknowRECODED(2)	.321	.283	1.294	1	.255	1.379
HowmanyotherpeopledoyouknowRECODED(3)	-.009	.302	.001	1	.977	.991
participationdifferential	-.008	.012	.492	1	.483	.992
distanceFromMin	.063	.023	7.696	1	.006	1.065
brainstorming(1)	-.127	.207	.375	1	.540	.881
activity_suggestion(1)	.143	.202	.496	1	.481	1.153
distanceFromMin by brainstorming(1)	-.027	.023	1.405	1	.236	.973
distanceFromMin by activity_suggestion(1)	-.031	.021	2.262	1	.133	.969
Constant	.283	.660	.183	1	.669	1.327
Step 2						
Gender(1)	.314	.178	3.095	1	.079	1.369
Age	-.026	.022	1.412	1	.235	.974
Levelofinterest(1)	.362	.181	3.986	1	.046	1.436
organizerrebin			35.913	3	.000	
organizerrebin(1)	.361	.277	1.698	1	.193	1.435
organizerrebin(2)	.619	.233	7.034	1	.008	1.857
organizerrebin(3)	1.496	.257	33.995	1	.000	4.464
HowmanyotherpeopledoyouknowRECODED			5.985	3	.112	
HowmanyotherpeopledoyouknowRECODED(1)	-.228	.277	.677	1	.411	.796
HowmanyotherpeopledoyouknowRECODED(2)	.312	.282	1.220	1	.269	1.366
HowmanyotherpeopledoyouknowRECODED(3)	-.015	.301	.002	1	.961	.985
participationdifferential	-.008	.012	.484	1	.487	.992
distanceFromMin	.067	.022	9.394	1	.002	1.070
activity_suggestion(1)	.130	.200	.419	1	.517	1.138
distanceFromMin by brainstorming(1)	-.035	.020	3.120	1	.077	.966
distanceFromMin by activity_suggestion(1)	-.029	.020	2.069	1	.150	.972
Constant	.222	.653	.116	1	.733	1.249
Step 3						
Gender(1)	.315	.178	3.127	1	.077	1.371
Age	-.026	.022	1.402	1	.236	.975
Levelofinterest(1)	.365	.181	4.074	1	.044	1.441
organizerrebin			36.095	3	.000	

	organizerrebin(1)	.363	.277	1.718	1	.190	1.438
	organizerrebin(2)	.613	.233	6.904	1	.009	1.845
	organizerrebin(3)	1.501	.257	34.168	1	.000	4.484
	HowmanyotherpeopledoyouknowRECODED			6.194	3	.103	
	HowmanyotherpeopledoyouknowRECODED(1)	-.222	.277	.642	1	.423	.801
	HowmanyotherpeopledoyouknowRECODED(2)	.325	.282	1.336	1	.248	1.385
	HowmanyotherpeopledoyouknowRECODED(3)	-.007	.301	.001	1	.981	.993
	participationdifferential	-.008	.012	.487	1	.485	.992
	distanceFromMin	.064	.021	9.270	1	.002	1.066
	distanceFromMin by brainstorming(1)	-.037	.019	3.555	1	.059	.964
	distanceFromMin by activity_suggestion(1)	-.022	.017	1.767	1	.184	.978
	Constant	.281	.646	.189	1	.664	1.324
Step 4	Gender(1)	.305	.178	2.947	1	.086	1.357
	Age	-.024	.022	1.216	1	.270	.976
	Levelofinterest(1)	.343	.180	3.636	1	.057	1.409
	organizerrebin			38.069	3	.000	
	organizerrebin(1)	.374	.277	1.832	1	.176	1.454
	organizerrebin(2)	.614	.232	7.013	1	.008	1.848
	organizerrebin(3)	1.532	.255	36.056	1	.000	4.626
	HowmanyotherpeopledoyouknowRECODED			6.543	3	.088	
	HowmanyotherpeopledoyouknowRECODED(1)	-.224	.276	.655	1	.418	.800
	HowmanyotherpeopledoyouknowRECODED(2)	.333	.281	1.404	1	.236	1.396
	HowmanyotherpeopledoyouknowRECODED(3)	-.040	.300	.018	1	.894	.961
	distanceFromMin	.065	.021	9.590	1	.002	1.067
	distanceFromMin by brainstorming(1)	-.038	.019	3.751	1	.053	.963
	distanceFromMin by activity_suggestion(1)	-.022	.017	1.774	1	.183	.978
	Constant	.207	.643	.104	1	.747	1.230
Step 5	Gender(1)	.300	.178	2.845	1	.092	1.349
	Levelofinterest(1)	.338	.180	3.542	1	.060	1.402
	organizerrebin			39.513	3	.000	
	organizerrebin(1)	.397	.276	2.077	1	.150	1.488
	organizerrebin(2)	.631	.231	7.458	1	.006	1.880
	organizerrebin(3)	1.559	.254	37.675	1	.000	4.752
	HowmanyotherpeopledoyouknowRECODED			6.466	3	.091	
	HowmanyotherpeopledoyouknowRECODED(1)	-.242	.275	.771	1	.380	.785
	HowmanyotherpeopledoyouknowRECODED(2)	.312	.280	1.246	1	.264	1.366
	HowmanyotherpeopledoyouknowRECODED(3)	-.058	.298	.038	1	.845	.943

	distanceFromMin	.065	.021	9.570	1	.002	1.067
	distanceFromMin by brainstorming(1)	-.037	.019	3.667	1	.055	.964
	distanceFromMin by activity_suggestion(1)	-.023	.017	1.824	1	.177	.978
	Constant	-.440	.263	2.809	1	.094	.644
Step 6	Gender(1)	.320	.177	3.266	1	.071	1.377
	Levelofinterest(1)	.347	.179	3.740	1	.053	1.415
	organizerrebin			38.779	3	.000	
	organizerrebin(1)	.364	.274	1.759	1	.185	1.439
	organizerrebin(2)	.610	.231	6.960	1	.008	1.840
	organizerrebin(3)	1.538	.254	36.704	1	.000	4.653
	HowmanyotherpeopledoyouknowRECODED			6.492	3	.090	
	HowmanyotherpeopledoyouknowRECODED(1)	-.237	.275	.740	1	.390	.789
	HowmanyotherpeopledoyouknowRECODED(2)	.321	.281	1.309	1	.253	1.379
	HowmanyotherpeopledoyouknowRECODED(3)	-.029	.298	.009	1	.923	.972
	distanceFromMin	.053	.018	8.746	1	.003	1.055
	distanceFromMin by brainstorming(1)	-.041	.019	4.543	1	.033	.960
	Constant	-.432	.263	2.702	1	.100	.649

Variables not in the Equation

		Score	d.f.	Sig.
Step 2	Variables brainstorming(1)	.375	1	.540
	Overall Statistics	.375	1	.540
Step 3	Variables brainstorming(1)	.297	1	.586
	activity_suggestion(1)	.419	1	.517
	Overall Statistics	.789	2	.674
Step 4	Variables participationdifferential	1.281	1	.258
	brainstorming(1)	.326	1	.568
	activity_suggestion(1)	.357	1	.550
	Overall Statistics	2.047	3	.563
Step 5	Variables Age	1.218	1	.270
	participationdifferential	1.207	1	.272
	brainstorming(1)	.313	1	.576
	activity_suggestion(1)	.350	1	.554
	Overall Statistics	3.283	4	.512
Step 6	Variables Age	1.264	1	.261
	participationdifferential	1.225	1	.268
	brainstorming(1)	.168	1	.682
	activity_suggestion(1)	.028	1	.867
	distanceFromMin by activity_suggestion(1)	2.107	1	.147
	Overall Statistics	5.378	5	.371

H3a: (Critical Mass as a threshold) - Awareness of a minimum number of people also interested in the respective activity will be positively associated with collective action initiation.

Categorical Variables Codings

		Frequency	Parameter coding		
			(1)	(2)	(3)
organizerrebin	.00	197	0.000	0.000	0.000
	1.00	123	1.000	0.000	0.000
	2.00	249	0.000	1.000	0.000
	3.00	258	0.000	0.000	1.000
HowmanyotherpeopledoyouknowRECODED	.00	117	0.000	0.000	0.000
	1.00	232	1.000	0.000	0.000
	2.00	260	0.000	1.000	0.000
	3.00	218	0.000	0.000	1.000
belowminabovemin	.00	143	0.000	0.000	
	1.00	140	1.000	0.000	
	2.00	544	0.000	1.000	
Levelofinterest	1.00	468	0.000		
	2.00	359	1.000		
Gender	female	473	0.000		
	male	354	1.000		

Classification Table

		Predicted		
		'wouldYouOrganize'		Percentage Correct
Observed		.00	1.00	
Step 0 'wouldYouOrganize'	.00	0	273	0.0
	1.00	0	554	100.0
Overall Percentage				67.0

Variables in the Equation

	B	S.E.	Wald	d.f.	Sig.	Exp(B)
Step 0 Constant	.708	.074	91.592	1	.000	2.029

Variables not in the Equation

	Score	d.f.	Sig.
Step 0 Variables Gender(1)	5.617	1	.018
Age	2.746	1	.098
Levelofinterest(1)	8.472	1	.004
organizerrebin	58.066	3	.000
organizerrebin(1)	3.813	1	.051
organizerrebin(2)	.204	1	.651
organizerrebin(3)	47.472	1	.000
HowmanyotherpeopledoyouknowRECODED	10.491	3	.015
HowmanyotherpeopledoyouknowRECODED(1)	5.629	1	.018
HowmanyotherpeopledoyouknowRECODED(2)	6.356	1	.012
HowmanyotherpeopledoyouknowRECODED(3)	.694	1	.405
participationdifferential	1.522	1	.217
belowminabovemin	.307	2	.858
belowminabovemin(1)	.302	1	.583
belowminabovemin(2)	.162	1	.688
Overall Statistics	76.468	12	.000

Block 1: Method = Backward Stepwise (Wald)

Omnibus Tests of Model Coefficients

		Chi-square	d.f.	Sig.
Step 1	Step	83.272	12	.000
	Block	83.272	12	.000
	Model	83.272	12	.000
Step 2	Step	-.370	2	.831
	Block	82.901	10	.000
	Model	82.901	10	.000
Step 3	Step	-3.410	1	.065
	Block	79.491	9	.000
	Model	79.491	9	.000
Step 4	Step	-1.425	1	.233
	Block	78.066	8	.000
	Model	78.066	8	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	965.787	.096	.133
2	966.157	.095	.133
3	969.568 ^b	.092	.128
4	970.993	.090	.125

Classification Table

		Predicted		
		'wouldYouOrganize'		Percentage Correct
Observed		.00	1.00	
Step 1	'wouldYouOrganize' .00	63	210	23.1
	1.00	53	501	90.4
Overall Percentage				68.2

Step 2	'wouldYouOrganize'	.00	63	210	23.1
		1.00	52	502	90.6
Overall Percentage					68.3
Step 3	'wouldYouOrganize'	.00	59	214	21.6
		1.00	52	502	90.6
Overall Percentage					67.8
Step 4	'wouldYouOrganize'	.00	53	220	19.4
		1.00	45	509	91.9
Overall Percentage					68.0

Variables in the Equation

		B	S.E.	Wald	d.f.	Sig.	Exp(B)
Step 1	Gender(1)	.398	.161	6.131	1	.013	1.489
	Age	-.026	.020	1.646	1	.200	.975
	Levelofinterest(1)	.369	.162	5.187	1	.023	1.446
	organizerrebin			45.692	3	.000	
	organizerrebin(1)	.266	.241	1.218	1	.270	1.305
	organizerrebin(2)	.549	.206	7.104	1	.008	1.731
	organizerrebin(3)	1.497	.230	42.491	1	.000	4.470
	HowmanyotherpeopledoyouknowRECODED			6.489	3	.090	
	HowmanyotherpeopledoyouknowRECODED(1)	-.308	.250	1.518	1	.218	.735
	HowmanyotherpeopledoyouknowRECODED(2)	.204	.255	.639	1	.424	1.226
	HowmanyotherpeopledoyouknowRECODED(3)	-.024	.263	.008	1	.928	.977
	participationdifferential	-.006	.007	.720	1	.396	.994
	belowminabovemin			.372	2	.830	
	belowminabovemin(1)	.070	.268	.068	1	.794	1.073
	belowminabovemin(2)	.126	.213	.351	1	.554	1.135
	Constant	.448	.601	.556	1	.456	1.565
Step 2	Gender(1)	.394	.160	6.035	1	.014	1.483
	Age	-.025	.020	1.621	1	.203	.975

	Levelofinterest(1)	.378	.161	5.473	1	.019	1.459
	organizerrebin			45.464	3	.000	
	organizerrebin(1)	.262	.241	1.183	1	.277	1.300
	organizerrebin(2)	.553	.206	7.211	1	.007	1.738
	organizerrebin(3)	1.489	.229	42.244	1	.000	4.431
	HowmanyotherpeopledoyouknowRECODED			6.504	3	.090	
	HowmanyotherpeopledoyouknowRECODED(1)	-.304	.250	1.481	1	.224	.738
	HowmanyotherpeopledoyouknowRECODED(2)	.209	.254	.673	1	.412	1.232
	HowmanyotherpeopledoyouknowRECODED(3)	-.023	.263	.007	1	.931	.978
	participationdifferential	-.006	.007	.697	1	.404	.994
	Constant	.531	.584	.827	1	.363	1.701
Step 3	Gender(1)	.382	.160	5.709	1	.017	1.466
	Age	-.024	.020	1.417	1	.234	.977
	Levelofinterest(1)	.359	.161	5.010	1	.025	1.432
	organizerrebin			46.590	3	.000	
	organizerrebin(1)	.269	.241	1.250	1	.264	1.309
	organizerrebin(2)	.549	.205	7.155	1	.007	1.731
	organizerrebin(3)	1.505	.229	43.354	1	.000	4.505
	HowmanyotherpeopledoyouknowRECODED			6.600	3	.086	
	HowmanyotherpeopledoyouknowRECODED(1)	-.303	.250	1.474	1	.225	.738
	HowmanyotherpeopledoyouknowRECODED(2)	.214	.254	.709	1	.400	1.239
	HowmanyotherpeopledoyouknowRECODED(3)	-.041	.262	.024	1	.876	.960
	Constant	.473	.582	.661	1	.416	1.606
Step 4	Gender(1)	.381	.160	5.684	1	.017	1.464
	Levelofinterest(1)	.359	.160	5.006	1	.025	1.432
	organizerrebin			48.229	3	.000	
	organizerrebin(1)	.286	.240	1.417	1	.234	1.331

organizerrebin(2)	.570	.204	7.770	1	.005	1.767
organizerrebin(3)	1.530	.228	45.144	1	.000	4.617
HowmanyotherpeopledoyouknowRECODED			6.592	3	.086	
HowmanyotherpeopledoyouknowRECODED(1)	-.327	.249	1.734	1	.188	.721
HowmanyotherpeopledoyouknowRECODED(2)	.187	.252	.547	1	.460	1.205
HowmanyotherpeopledoyouknowRECODED(3)	-.066	.261	.063	1	.801	.936
Constant	-.166	.225	.541	1	.462	.847

Variables not in the Equation

			Score	d.f.	Sig.
Step 2	Variables	belowminabovemin	.372	2	.830
		belowminabovemin(1)	.022	1	.883
		belowminabovemin(2)	.303	1	.582
		Overall Statistics	.372	2	.830
		Overall Statistics	.372	2	.830
Step 3	Variables	participationdifferential	1.422	1	.233
		belowminabovemin	.331	2	.848
		belowminabovemin(1)	.020	1	.888
		belowminabovemin(2)	.270	1	.603
		Overall Statistics	1.831	3	.608
Step 4	Variables	Age	1.419	1	.233
		participationdifferential	1.350	1	.245
		belowminabovemin	.310	2	.857
		belowminabovemin(1)	.058	1	.810
		belowminabovemin(2)	.292	1	.589
		Overall Statistics	3.264	4	.515

H3b: (Critical Mass as a production function) - Awareness of other people and their contributions, in relation to the number of people needed for an activity, will be positively associated with IT artifact collective action initiation.

Categorical Variables Codings

		Frequency	Parameter coding		
			(1)	(2)	(3)
HowmanyotherpeopledoyouknowRECODED	.00	95	0.000	0.000	0.000
	1.00	191	1.000	0.000	0.000
	2.00	214	0.000	1.000	0.000
	3.00	184	0.000	0.000	1.000
organizerrebin	.00	167	0.000	0.000	0.000
	1.00	101	1.000	0.000	0.000
	2.00	214	0.000	1.000	0.000
	3.00	202	0.000	0.000	1.000
enoughnotenoughpeople	.00	140	0.000	0.000	
	1.00	408	1.000	0.000	
	2.00	136	0.000	1.000	
Levelofinterest	1.00	375	0.000		
	2.00	309	1.000		
activity_suggestion	.00	359	0.000		
	1.00	325	1.000		
no_brainstorming	.00	362	0.000		
	1.00	322	1.000		
Gender	female	399	0.000		
	male	285	1.000		

Block 0: Beginning Block

Classification Table

Observed		Predicted		
		'wouldYouOrganize'		Percentage Correct
		.00	1.00	
Step 0	'wouldYouOrganize' .00	0	226	0.0
	1.00	0	458	100.0
	Overall Percentage			67.0

Variables in the Equation

	B	S.E.	Wald	d.f.	Sig.	Exp(B)
Step 0 Constant	.706	.081	75.498	1	.000	2.027

Variables not in the Equation

	Score	d.f.	Sig.
Step 0 Variables Gender(1)	4.713	1	.030
Age	3.707	1	.054
Levelofinterest(1)	6.913	1	.009
organizerrebin	54.789	3	.000
organizerrebin(1)	3.909	1	.048
organizerrebin(2)	.162	1	.688
organizerrebin(3)	45.234	1	.000
HowmanyotherpeopledoyouknowRECODED	6.629	3	.085
HowmanyotherpeopledoyouknowRECODED(1)	3.213	1	.073
HowmanyotherpeopledoyouknowRECODED(2)	2.897	1	.089
HowmanyotherpeopledoyouknowRECODED(3)	1.129	1	.288
participationdifferential	2.541	1	.111
numPeopleShown	2.130	1	.144
enoughnotenoughpeople	2.324	2	.313
enoughnotenoughpeople(1)	2.130	1	.144
enoughnotenoughpeople(2)	1.526	1	.217
brainstorming(1)	1.158	1	.282
activity_suggestion(1)	.004	1	.950
numPeopleShown * enoughnotenoughpeople	6.234	2	.044

numPeopleShown by enoughnotenoughpeople(1)	4.670	1	.031
numPeopleShown by enoughnotenoughpeople(2)	1.235	1	.266
Overall Statistics	81.498	17	.000

Block 1: Method = Backward Stepwise (Wald)

Omnibus Tests of Model Coefficients

		Chi-square	d.f.	Sig.
Step 1	Step	102.105	17	.000
	Block	102.105	17	.000
	Model	102.105	17	.000
Step 2	Step	-.021	1	.885
	Block	102.084	16	.000
	Model	102.084	16	.000
Step 3	Step	-1.041	3	.791
	Block	101.043	13	.000
	Model	101.043	13	.000
Step 4	Step	-3.218	1	.073
	Block	97.825	12	.000
	Model	97.825	12	.000
Step 5	Step	-1.955	2	.376
	Block	95.870	10	.000
	Model	95.870	10	.000
Step 6	Step	-2.311	1	.128
	Block	93.559	9	.000
	Model	93.559	9	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	765.848	.139	.193
2	765.869	.139	.193
3	766.909	.137	.191
4	770.127	.133	.185
5	772.082 ^b	.131	.182
6	774.393	.128	.178

Classification Table

Observed			Predicted		
			'wouldYouOrganize'		Percentage Correct
			.00	1.00	
Step 1	'wouldYouOrganize'	.00	79	147	35.0
		1.00	49	409	89.3
	Overall Percentage				71.3
Step 2	'wouldYouOrganize'	.00	77	149	34.1
		1.00	50	408	89.1
	Overall Percentage				70.9
Step 3	'wouldYouOrganize'	.00	75	151	33.2
		1.00	48	410	89.5
	Overall Percentage				70.9
Step 4	'wouldYouOrganize'	.00	76	150	33.6
		1.00	49	409	89.3
	Overall Percentage				70.9
Step 5	'wouldYouOrganize'	.00	77	149	34.1
		1.00	52	406	88.6
	Overall Percentage				70.6
Step 6	'wouldYouOrganize'	.00	72	154	31.9
		1.00	50	408	89.1
	Overall Percentage				70.2

Variables in the Equation

		B	S.E.	Wald	d.f.	Sig.	Exp(B)
Step 1	Gender(1)	.377	.184	4.208	1	.040	1.457
	Age	-.037	.023	2.672	1	.102	.964
	Levelofinterest(1)	.369	.182	4.083	1	.043	1.446
	organizerrebin			50.405	3	.000	
	organizerrebin(1)	.371	.272	1.862	1	.172	1.449
	organizerrebin(2)	.742	.233	10.113	1	.001	2.099
	organizerrebin(3)	1.883	.273	47.547	1	.000	6.573
	HowmanyotherpeopledoyouknowRECODED			1.051	3	.789	
	HowmanyotherpeopledoyouknowRECODED(1)	-.152	.286	.283	1	.595	.859
	HowmanyotherpeopledoyouknowRECODED(2)	.067	.293	.052	1	.819	1.069
	HowmanyotherpeopledoyouknowRECODED(3)	-.099	.304	.107	1	.743	.905
	participationdifferential	-.008	.011	.546	1	.460	.992
	numPeopleShown	.056	.055	1.016	1	.314	1.057
	enoughnotenoughpeople			8.226	2	.016	
	enoughnotenoughpeople(1)	.083	.286	.085	1	.770	1.087
	enoughnotenoughpeople(2)	1.060	.440	5.797	1	.016	.346
	brainstorming(1)	-.324	.179	3.267	1	.071	.723
	activity_suggestion(1)	-.026	.179	.021	1	.885	.975
	numPeopleShown * enoughnotenoughpeople			1.963	2	.375	
	numPeopleShown by enoughnotenoughpeople(1)	-.031	.057	.299	1	.585	.969
	numPeopleShown by enoughnotenoughpeople(2)	.002	.059	.001	1	.972	1.002
	Constant	.722	.713	1.024	1	.312	2.058

Step 2	Gender(1)	.377	.184	4.226	1	.040	1.458	
	Age	-.037	.023	2.704	1	.100	.963	
	Levelofinterest(1)	.370	.182	4.122	1	.042	1.447	
	organizerrebin			50.494	3	.000		
	organizerrebin(1)	.369	.271	1.852	1	.174	1.447	
	organizerrebin(2)	.742	.233	10.119	1	.001	2.100	
	organizerrebin(3)	1.880	.272	47.649	1	.000	6.556	
	HowmanyotherpeopledoyouknowRECODED			1.037	3	.792		
	HowmanyotherpeopledoyouknowRECODED(1)	-.154	.285	.289	1	.591	.858	
	HowmanyotherpeopledoyouknowRECODED(2)	.064	.292	.049	1	.826	1.066	
	HowmanyotherpeopledoyouknowRECODED(3)	-.098	.303	.104	1	.747	.907	
	participationdifferential	-.008	.011	.544	1	.461	.992	
	numPeopleShown	.056	.055	1.020	1	.312	1.057	
	enoughnotenoughpeople			8.226	2	.016		
	enoughnotenoughpeople(1)	.082	.285	.082	1	.775	1.085	
	enoughnotenoughpeople(2)	1.061	-.440	5.820	1	.016	.346	
	brainstorming(1)	-.325	.179	3.285	1	.070	.723	
	numPeopleShown * enoughnotenoughpeople			1.965	2	.374		
	numPeopleShown by enoughnotenoughpeople(1)	-.031	.057	.300	1	.584	.969	
	numPeopleShown by enoughnotenoughpeople(2)	.002	.058	.001	1	.971	1.002	
	Constant	.717	.713	1.012	1	.314	2.048	
	Step 3	Gender(1)	.365	.182	4.018	1	.045	1.441
		Age	-.037	.023	2.717	1	.099	.964
Levelofinterest(1)		.367	.181	4.114	1	.043	1.444	

	organizerrebin			52.874	3	.000	
	organizerrebin(1)	.367	.265	1.911	1	.167	1.443
	organizerrebin(2)	.751	.225	11.091	1	.001	2.118
	organizerrebin(3)	1.886	.266	50.339	1	.000	6.590
	participationdifferential	-.008	.011	.557	1	.455	.992
	numPeopleShown	.056	.054	1.079	1	.299	1.058
	enoughnotenoughpeople			8.611	2	.013	
	enoughnotenoughpeople(1)	.086	.282	.092	1	.762	1.089
	enoughnotenoughpeople(2)	1.077	-.434	6.155	1	.013	.340
	brainstorming(1)	-.325	.178	3.322	1	.068	.722
	numPeopleShown * enoughnotenoughpeople			1.968	2	.374	
	numPeopleShown by enoughnotenoughpeople(1)						
		-.031	.056	.306	1	.580	.970
	numPeopleShown by enoughnotenoughpeople(2)						
		.002	.058	.001	1	.970	1.002
	Constant	.661	.701	.888	1	.346	1.936
Step 4	Gender(1)	.353	.182	3.775	1	.052	1.423
	Age	-.035	.022	2.479	1	.115	.965
	Levelofinterest(1)	.339	.180	3.562	1	.059	1.404
	organizerrebin			53.632	3	.000	
	organizerrebin(1)	.375	.265	2.002	1	.157	1.455
	organizerrebin(2)	.748	.224	11.093	1	.001	2.112
	organizerrebin(3)	1.900	.266	51.195	1	.000	6.684
	numPeopleShown	.056	.054	1.092	1	.296	1.058
	enoughnotenoughpeople			8.389	2	.015	
	enoughnotenoughpeople(1)	.081	.282	.083	1	.773	1.085
	enoughnotenoughpeople(2)	1.061	-.433	6.014	1	.014	.346
	brainstorming(1)	-.336	.178	3.557	1	.059	.715

	numPeopleShown * enoughnotenoughpeople			1.892	2	.388	
	numPeopleShown by enoughnotenoughpeople(1)	-.031	.056	.302	1	.583	.970
	numPeopleShown by enoughnotenoughpeople(2)	.002	.057	.001	1	.978	1.002
	Constant	.595	.698	.725	1	.394	1.812
Step 5	Gender(1)	.356	.181	3.846	1	.050	1.427
	Age	-.034	.022	2.291	1	.130	.967
	Levelofinterest(1)	.315	.179	3.114	1	.078	1.370
	organizerrebin			53.585	3	.000	
	organizerrebin(1)	.376	.265	2.018	1	.155	1.456
	organizerrebin(2)	.748	.224	11.168	1	.001	2.113
	organizerrebin(3)	1.896	.265	51.153	1	.000	6.660
	numPeopleShown	.040	.011	12.284	1	.000	1.040
	enoughnotenoughpeople			9.603	2	.008	
	enoughnotenoughpeople(1)	-.067	.230	.086	1	.770	.935
	enoughnotenoughpeople(2)	-.811	.315	6.617	1	.010	.444
	brainstorming(1)	-.325	.177	3.362	1	.067	.722
	Constant	.598	.687	.758	1	.384	1.818
Step 6	Gender(1)	.353	.181	3.790	1	.052	1.423
	Levelofinterest(1)	.313	.178	3.089	1	.079	1.368
	organizerrebin			54.620	3	.000	
	organizerrebin(1)	.388	.264	2.165	1	.141	1.475
	organizerrebin(2)	.763	.223	11.661	1	.001	2.144
	organizerrebin(3)	1.912	.265	52.220	1	.000	6.765
	numPeopleShown	.040	.011	12.463	1	.000	1.040
	enoughnotenoughpeople			9.309	2	.010	
	enoughnotenoughpeople(1)	-.048	.229	.044	1	.834	.953

enoughnotenoughpeople(2)	-.783	.314	6.216	1	.013	.457
brainstorming(1)	-.316	.177	3.196	1	.074	.729
Constant	-.367	.258	2.021	1	.155	.693

Variables not in the Equation

			Score	d.f.	Sig.
Step 2	Variables	activity_suggestion(1)	.021	1	.885
	Overall Statistics		.021	1	.885
Step 3	Variables	HowmanyotherpeopledoyouknowRECODED	1.039	3	.792
		HowmanyotherpeopledoyouknowRECODED(1)	.589	1	.443
		HowmanyotherpeopledoyouknowRECODED(2)	.745	1	.388
		HowmanyotherpeopledoyouknowRECODED(3)	.102	1	.749
		activity_suggestion(1)	.007	1	.931
	Overall Statistics		1.059	4	.901
Step 4	Variables	HowmanyotherpeopledoyouknowRECODED	1.126	3	.771
		HowmanyotherpeopledoyouknowRECODED(1)	.514	1	.473
		HowmanyotherpeopledoyouknowRECODED(2)	.849	1	.357
		HowmanyotherpeopledoyouknowRECODED(3)	.194	1	.660
		participationdifferential	3.277	1	.070
		activity_suggestion(1)	.017	1	.895
	Overall Statistics		4.330	5	.503
Step 5	Variables	HowmanyotherpeopledoyouknowRECODED	1.118	3	.773
		HowmanyotherpeopledoyouknowRECODED(1)	.547	1	.460

		HowmanyotherpeopledoyouknowRECODED(2)	.781	1	.377
		HowmanyotherpeopledoyouknowRECODED(3)	.177	1	.674
		participationdifferential	3.027	1	.082
		activity_suggestion(1)	.020	1	.887
		numPeopleShown * enoughnotenoughpeople	1.912	2	.384
		numPeopleShown by enoughnotenoughpeople(1)	1.912	1	.167
		numPeopleShown by enoughnotenoughpeople(2)	1.546	1	.214
		Overall Statistics	6.108	7	.527
Step 6	Variables	Age	2.298	1	.130
		HowmanyotherpeopledoyouknowRECODED	1.139	3	.768
		HowmanyotherpeopledoyouknowRECODED(1)	.586	1	.444
		HowmanyotherpeopledoyouknowRECODED(2)	.663	1	.416
		HowmanyotherpeopledoyouknowRECODED(3)	.175	1	.676
		participationdifferential	2.562	1	.109
		activity_suggestion(1)	.049	1	.824
		numPeopleShown * enoughnotenoughpeople	1.722	2	.423
		numPeopleShown by enoughnotenoughpeople(1)	1.722	1	.189
		numPeopleShown by enoughnotenoughpeople(2)	1.423	1	.233

Overall Statistics	8.172	8	.417
--------------------	-------	---	------

REFERENCES

1. Adger, W. N. (2010). Social capital, collective action, and adaptation to climate change. *Der Klimawandel*, 327–345.
2. Allport, F. (1920). The influence of the group upon association and thought. *Journal of Experimental Psychology*, 3, 159.
3. Allport, F. (1924). *Social Psychology*. Boston: Houghton Mifflin (pp. 15-30).
4. Ashforth, B. E., Mael, F. (1989). Social Identity Theory and the Organization. *The Academy of Management Review*, 14, 20–39.
5. Ashida, S., Heaney, C. A. (2008). Social networks and participation in social activities at a new senior center: reaching out to older adults who could benefit the most. *Activities, Adaptation & Aging*, 32, 40–58.
6. Avison, W. R. et al. (2007). *Mental Health, Social Mirror*. New York: Springer (pp. 54-60).
7. Backstrom, L. et al. (2006). Group formation in large social networks: membership, growth, and evolution. In *Proceedings of the 12th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, 44–54.
8. Bagozzi, R. P., Dholakia, U. M. (2002). Intentional social action in virtual communities. *Journal of Interactive Mark*, 16, 2–21.
9. Barkhuus, L., Tashiro, J. (2010). Student socialization in the age of Facebook. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 133–142.
10. Berger, C., Calabrese, R. (1975). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. *Human Communication Research*, 1, 99–112.
11. Bergstrom, T. C. (2002). Evolution of social behavior: individual and group selection. *Journal of Economic Perspectives*. 67–88.
12. Blanchard, A. L., Markus, M. L. (2004). The experienced “sense” of a virtual community: characteristics and processes. *ACM SIGMIS Database*, 35, 64–79.
13. Blum, F. H. (1955). Action research--A scientific approach? *Philosophy of Science*, 22, 1–7.

14. boyd, d. Friendster and publicly articulated social networking. In *CHI '04 Extended Abstracts on Human Factors in Computing Systems*, 1279-1282.
15. Bradner, E., Mark, G. (2001). Social presence with video and application sharing. In *Proceedings of the 2001 International ACM SIGGROUP Conference on Supporting Group Work*, 154–161.
16. Brandtzæg, P. B., Heim, J. (2009). Why people use social networking sites. *Online Communities and Social Computing*, 143–152.
17. Bratman, M. E. (1992). Shared cooperative activity. *The Philosophical Review*, 327–341.
18. Breed, W., Ktsanes, T. (1961). Pluralistic Ignorance in the Process of Opinion Formation. *The Public Opinion Quarterly*, 25, 382–392.
19. Brown, B. A. T. et al. (2000). A diary study of information capture in working life. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 438–445.
20. Tuckman, B. W., Jensen, M. A. C. (1977). Stages of Small-Group Development Revisited. *Group Organization Management*, 2, 419–427.
21. Burke, R. et al. (2011). Experience Discovery: hybrid recommendation of student activities using social network data. *Proceedings of the 2nd International Workshop on Information Heterogeneity and Fusion in Recommender Systems*, 49–52.
22. Butler, B. et al. (2007). Community Effort in Online Groups: Who Does the Work and Why? *Research in Technologically Supported Work*, 171-194.
23. Butler, B., Wang, X. (2012). The Cross-Purposes of Cross-Posting: Boundary Reshaping Behavior in Online Discussion Communities. *Information Systems Research*, 23, 993–1010.
24. Carroll, J. M. (2002). Usability engineering: scenario-based development of human-computer interaction. *The Human-Computer Interaction Handbook*. Burlington: Morgan Kaufmann (pp.150-169).
25. Carson, J. B. et al. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal*, 50, 1217–1234.
26. Cheng, C. et al. (2008). A unified approach to finding good stable matchings in the hospitals/residents setting. *Theoretical Computer Science*, 400, 84–99.

27. Chidambaram, L., Tung, L. L. (2005). Is out of sight, out of mind? An empirical study of social loafing in technology-supported groups. *Information Systems Research, 16*, 149–168.
28. Coe, R. M. (1965). Self-conception and professional training. *Nursing Research, 14*, 49–52.
29. Cohen, Y. A. (1969). Social Boundary Systems. *Current Anthropology, 10*, 103–126.
30. Colbert, M. (2001). A Diary Study of Rendezvousing: Implications for Position-aware Computing and Communications for the General Public. In *Proceedings of the 2001 International ACM SIGGROUP Conference on Supporting Group Work*, 15–23.
31. Cole, T. et al. (2011). Social Facilitation in Online and Offline Gambling: A Pilot Study. *International Journal of Mental Health and Addiction, 9*, 240–247.
32. Coleman, J. S. (1966). Foundations for a Theory of Collective Decisions. *American Journal of Sociology, 71*, 615–627.
33. Cottrell, N. B. et al. (1968). Social Facilitation of Dominant Responses by the Presence of an Audience and the Mere Presence of Others. *Journal of Personality and Social Psychology, 9*, 245.
34. Cowan, R., Jonard, N. (2004). Network Structure and the Diffusion of Knowledge. *Journal of Economic Dynamics and Control, 28*, 1557–1575.
35. Dashiell, J. F. (1930). An Experimental Analysis of Some Group Effects. *The Journal of Abnormal and Social Psychology, 25*, 190.
36. Dennen, V. P. (2008). Pedagogical Lurking: Student Engagement in Non-Posting Discussion Behavior. *Computers in Human Behavior, 24*, 1624–1633.
37. Dholakia, U. M. et al. (2004). A Social Influence Model of Consumer Participation in Network- and Small-group-based Virtual Communities. *International Journal of Research in Marketing, 21*, 241–263.
38. Dion, K. L. (1973). Cohesiveness as a Determinant of Ingroup-outgroup Bias. *Journal of Personality and Social Psychology, 28*, 163–171.
39. Ellemers, N. et al. (1988). Social Identification and Permeability of Group Boundaries. *European Journal of Social Psychology, 18*, 497–513.
40. Ellemers, N. et al. (1997). Sticking Together or Falling Apart: In-Group Identification as a Psychological Determinant of Group Commitment Versus Individual Mobility. *Journal of Personality and Social Psychology, 72*, 617–626.

41. Ellison, N. B. et al. (2007). The Benefits of Facebook “Friends:” Social Capital and College Students’ Use of Online Social Network Sites. *Journal of Computer-Mediated Communication*, 12, 1143–1168.
42. Farzan, R. et al. (2011). Increasing Commitment to Online Communities by Designing for Social Presence. In *Proceedings of the ACM 2011 Conference on Computer Supported Cooperative Work (CSCW '11)*, 321–330.
43. Flores, F. et al. (1988). Computer Systems and the Design of Organizational Interaction. *ACM Trans. Information Systems*. 6, 153–172.
44. Frayling, C. (1993). Research in Art and Design. *Royal College of Art Research Papers*, 1, 1-10.
45. Furniss, D. et al. (2011). Confessions from a Grounded Theory PhD: Experiences and Lessons Learnt. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '11)*, 113–122.
46. Gale, D., Shapley, L. S. (1962). College Admissions and the Stability of Marriage. *The American Mathematical Monthly*, 69, 9–15.
47. Gale, D., Shapley, L. S. (2012). *Stable Allocations and the Practice of Market Design*. The Royal Swedish Academy of Sciences.
48. Glaser, B., Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Abingdon: Routledge, (pp. 1-100).
49. Goggins, S. P. et al. (2007). Cooperation and Groupness: Community Formation in Small Online Collaborative Groups. In *Proceedings of the 2007 International ACM Conference on Supporting Group Work*, 207–216.
50. Gold, N., Sugden, R. (2007). Collective Intentions and Team Agency. *Journal of Philosophy*, 104, 109–137.
51. Grabowicz, P. A. et al. (2013). Distinguishing Topical and Social Groups Based on Common Identity and Bond Theory. In *Proceedings of the Sixth ACM International Conference on Web Search and Data Mining*, 627–636.
52. Granovetter, M. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 78, 1360–1380.
53. Granovetter, M. (1983). The Strength of Weak Ties: A Network Theory Revisited. *Sociological Theory*, 1, 201–233.
54. Granovetter, M. (1978). Threshold Models of Collective Behavior. *American Journal of Sociology*, 83. 1420–1443.

55. Helliwell, J. F., Putnam, R. (2004). The Social Context of Well-Being. *Philosophical Transactions of the Royal Society*, 359, 1435–1446.
56. Hill, N. S., Bartol, K. M. (2016). Empowering Leadership and Effective Collaboration in Geographically Dispersed Teams. *Personnel Psychology*, 69, 159–198.
57. Hiltz, S. R., Turoff, M. (1978). *The Network Nation: Human Communication Via Computer*. Boston: MIT Press (pp. 1-120).
58. Hiltz, S. R., Turoff, M. (1985). Structuring Computer-mediated Communication Systems to Avoid Information Overload. *Communications of the ACM*, 28, 680 – 689.
59. Hiltz, S. R., Turoff, M. (1981). The Evolution of User Behavior in a Computerized Conferencing System. *Communications of the ACM*, 24, 739–751.
60. Hiltz, S. R., Turoff, M. (1993). *The Network Nation: Human Communication Via Computer*. Boston: MIT Press.
61. Hoegl, M., Muethel, M. (2016). Enabling Shared Leadership in Virtual Project Teams: A Practitioners’ Guide. *Project Management Journal*, 47, 7-12.
62. Hogg, M. A. (2006). *Social Identity Theory. Contemporary Social Psychological Theories*. California: Stanford University Press (pp. 10-35).
63. Hogg, M. A., Reid, S . A. (2006). Social Identity, Self-Categorization, and the Communication of Group Norms. *Communication Theory*, 16, 7–30.
64. Hogg, M. A., Tindale, R. S. (2005). *Social Identity, Influence, and Communication in Small Groups. Intergroup communication: Multiple Perspectives*. New York: Peter Lang. 141–164.
65. Johnson, N. R., Feinberg, W. E. (1990). Ambiguity and Crowds: Results from a Computer Simulation Model. *Res. Soc. Movements, Conflicts & Change*, 12, 35–66.
66. Jones, Q. et al. (2002). An Empirical Exploration of Mass Interaction System Dynamics: Individual Information Overload and Usenet Discourse. In *Proceedings of the 35th Annual Hawaii International Conference on System Sciences, 2002*, 1050–1059.
67. Jones, Q. et al. (2008). Empirical Evidence of Information Overload Constraining Chat Channel Community Interactions. In *Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work*, 323–332.

68. Joyce, E., Kraut, R. E. (2006). Predicting Continued Participation in Newsgroups. *Journal of Computer-Mediated Communication*, 11, 723–747.
69. Juhlin, O and Ostergren, M. (2006). Time to Meet Face-to-Face and Device-to-Device. In *Proceedings of the 8th Conference on Human-computer Interaction with Mobile Devices and Services (MobileHCI '06)*, 77-80.
70. Karau, S. J., Williams, K. D. (1993). Social loafing: A Meta-Analytic Review and Theoretical Integration. *American Psychological Association*.
71. Kempe, D. et al. (2003). Maximizing the Spread of Influence Through a Social Network. *Theory of Computing*, 11, 137–146.
72. Kieffer, C. H. (1984). Citizen Empowerment: A Developmental Perspective. *Prevention in Human Services*. 3, 9–36.
73. Kozlowski, S. W., Bell, B. S. (2003). Work Groups and Teams in Organizations. *Handbook of Psychology*, 2, 333–375.
74. Lampe, C. et al. (2006). A Face (book) in the Crowd: Social Searching vs. Social Browsing. *Proceedings of the 2006 20th Anniversary Conference on Computer Supported Cooperative Work*, 167–170.
75. Lampe, C. et al. (2008). Changes in Use and Perception of Facebook. In *Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work (CSCW '08)*, 721-730.
76. Latane, B., Darley, J. (1970). *The Unresponsive Bystander: Why Doesn't He Help?* New Jersey: Prentice Hall (pp. 21-78).
77. Lindqvist, J. et al. (2011). I'm the Mayor of my House: Examining Why People use Foursquare: A Social-driven Location Sharing Application. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '11)*, 2409–2418.
78. Liu, X. et al. (2012). Event-based Social Networks: Linking the Online and Offline Social Worlds. *Proceedings of the 18th ACM SIGKDD International Conference on Knowledge discovery and data mining*, 1032–1040.
79. Macedo, A. Q. et al. (2015). Context-Aware Event Recommendation in Event-based Social Networks. In *Proceedings of the 9th ACM Conference on Recommender Systems*, 123-130.
80. Malone, T. W., Crowston, K. (1994). The Interdisciplinary Study of Coordination. *Computing Surveys*, 26, 87–119.

81. Malone, T. W., Crowston, K. (1990). What is Coordination Theory and How Can it Help Design Cooperative Work Systems? In *Proceedings of the 1990 ACM conference on Computer-supported Cooperative Work (CSCW '90)*, 357–370.
82. Margetts, H. Z. et al. (2015). Leadership Without Leaders? Starters and Followers in Online Collective Action. *Political Studies*, 63, 278–299.
83. Markus, M. L. (1987). Toward a “Critical Mass” Theory of Interactive Media: Universal Access, Interdependence and Diffusion. *Communication Research*, 14, 491–511.
84. Marwell, G., Oliver, P. E. (2001). Whatever Happened to Critical Mass Theory? A Retrospective and Assessment. *Sociological Theory*, 19, 292–311.
85. Matavire, R., Brown, I. (2008). Investigating the Use of “Grounded Theory” in Information Systems Research. In *Proceedings of the 2008 Annual Research Conference of the South African Institute of Computer Scientists and Information Technologists on IT research in Developing Countries: Riding the Wave of Technology (SAICSIT '08)*, 139–147.
86. Mayer, J. M. et al. (2010). Common Attributes in an Unusual Context: Predicting the Desirability of a Social Match. In *Proceedings of the Fourth ACM Conference on Recommender Systems (RecSys '10)*, 337–340.
87. Mayer, J. M. et al. (2016). Supporting Opportunities for Context-Aware Social Matching: An Experience Sampling Study. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*, 2430–2441.
88. McKenna, K. Y. A., Green, A. S. (2002). Virtual Group Dynamics. *Group Dynamics: Theory, Research, and Practice*, 6, 116–127.
89. McPhail, C., Tucker, C. W. (1990). Purposive Collective Action. *American Behavioral Scientist*, 34, 81–94.
90. McPhail, C., Wohlstein, R. T. (1986). Collective Locomotion as Collective Behavior. *American Sociological Review*, 51, 447–463.
91. Merton, R. K. (1968). *Social Theory and Social Structure*. The Free Press.
92. Miller, D. T., McFarland, C. (1987). Pluralistic Ignorance: When Similarity is Interpreted as Dissimilarity. *Journal of Personality and Social Psychology*, 53, 298–305.
93. Miller, D. T., McFarland, C. (1991). When Social Comparison Goes Awry: The Case of Pluralistic Ignorance. *Social Comparison: Contemporary Theory and Research*, (pp. 287–313).

94. Mortensen, D. T. (1988). Matching: Finding a Partner for Life or Otherwise. *American Journal of Sociology*, 94, S215–S240.
95. Motahari, S. et al. (2009). Social Inference Risk Modeling in Mobile and Social Applications. In *Proceedings of International Conference on Computational Science and Engineering (CSE '09)*.
96. Noulas, A. et al. (2012). A Random Walk Around the City: New Venue Recommendation in Location-based Social Networks. Privacy, Security, Risk and Trust (PASSAT), In *Proceedings of the 2012 International Conference on Social Computing (SocialCom)*, 144–153.
97. NSF (2013). *NSF CFP: Virtual Organizations as Sociotechnical Systems (VOSS)*.
98. O’Gorman, H. J., Garry, S. L. (1976). Pluralistic Ignorance: A Replication and Extension. *The Public Opinion Quarterly*, 40, 449–458.
99. Oliver, P. (1993). Formal Models of Collective Action. *Annual Review of Sociology*, 271–300.
100. Oliver, P. E., Marwell, G. (1988). The Paradox of Group Size in Collective Action: A Theory of the Critical Mass. II. *American Sociological Review*, 53, 1–8.
101. Oliver, P. E., Marwell, G. (2002). Whatever Happened to Critical Mass Theory? A Retrospective and Assessment. *Sociological Theory*, 19, 292–311.
102. Olson, M. (1965). *The Logic of Collective Action: Public Goods and the Theory of Group*. Cambridge: Harvard University Press (pp. 27-140).
103. Park, N. et al. (2009). Being Immersed in Social Networking Environment: Facebook Groups, Uses and Gratifications, and Social Outcomes. *CyberPsychology & Behavior*, 12, 729–733.
104. Paulos, E., Goodman, E. (2004). The Familiar Stranger: Anxiety, Comfort, and Play in Public Places. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '04)*, 223–230.
105. Pearce, C. L., Sims Jr, H. P. (2002). Vertical Versus Shared Leadership as Predictors of the Effectiveness of Change Management Teams: An Examination of Aversive, Directive, Transactional, Transformational, and Empowering Leader Behaviors. *Group Dynamics: Theory, Research, and Practice*, 6, 172-190.
106. Pempek, T. A. et al. (2009). College Students’ Social Networking Experiences on Facebook. *Journal of Applied Developmental Psychology*, 30, 227–238.

107. Perkins, D. D., Zimmerman, M. A. (1995). Empowerment Theory, Research, and Application. *American Journal of Community Psychology*, 23, 569–579.
108. Pew Research Center (2016). *Social Media Update 2016*. Retrieved May 29, 2017 from <http://www.pewinternet.org/2016/11/11/social-media-update-2016/>.
109. Ploderer, B. et al. (2008). Being Online, Living Offline: The Influence of Social Ties over the Appropriation of Social Network Sites. In *Proceedings of the 2008 ACM Conference on Computer Supported Cooperative Work (CSCW '08)*, 333–342.
110. Postmes, T. et al. (2005). Social Influence in Small Groups: An Interactive Model of Social Identity Formation. *European Review of Social Psychology*, 16, 1–42.
111. Powell, A., Piccoli, G., & Ives, B. (2004). Virtual Teams: a Review of Current Literature and Directions for Future Research. *ACM Sigmis Database*, 35, 6–36.
112. Preece, J., Shneiderman, B. (2009). The Reader-to-leader Framework: Motivating Technology-mediated Social Participation. *AIS Transactions on Human-Computer Interaction*, 1, 13–32.
113. Prentice, D. A., Miller, D. T. (1993). Pluralistic Ignorance and Alcohol Use on Campus: Some Consequences of Misperceiving the Social Norm. *Journal of Personality and Social Psychology*, 64, 243–256.
114. Putnam, R. (2000). *Bowling Alone*. New York: Simon & Schuster.
115. Raban, D. R. et al. (2009). Hello Stranger! A Study of Introductory Communication Structure and Social Match Success. In *Proceedings of the 42nd Hawaii International Conference on Systems Science (HICSS-42 2009)*, 1–9.
116. Rafaeli, S. et al. (2004). De-lurking in Virtual Communities: A Social Communication Network Approach to Measuring the Effects of Social and Cultural Capital. In *Proceedings of the 37th Annual Hawaii International Conference on System Sciences*, 10-21.
117. Rappaport, J. et al. (1984). Studies in Empowerment: Introduction to the Issue. *Studies in Empowerment: Steps Toward Understanding and Action*, 1–7.
118. Reichers, A. E. (1985). A Review and Reconceptualization of Organizational Commitment. *Academy of Management Review*, 10, 465–476.
119. Ricken, S. et al. (2014). Anyone for Bowling?: Coalescing for Shared Activities. *Proceedings of the 18th International Conference on Supporting Group Work*, 122–130.

120. Ricken, S. T. et al. (2010). TellUsWho: Guided Social Network Data Collection. In *Proceedings from the 43rd Hawaii International International Conference on Systems Science (HICSS-43 2010)*, 1–10.
121. Rieman, J. (1993). The Diary Study: a Workplace-oriented Research Tool to Guide Laboratory Efforts, *Proceedings of the INTERACT '93 and CHI '93 Conference on Human Factors in Computing Systems*, 321–326.
122. Rittel, H. W. J., Webber, M. M. (1973) Dilemmas in a General Theory of Planning, *Policy Sciences*, 155–169.
123. Rogers, E. M. (1995). *Diffusion of Innovations*. The Free Press.
124. Rogers, E. M. (1976). New Product Adoption and Diffusion. *Journal of Consumer Research*, 2, 290-301.
125. Saha, B., Getoor, L. (2008). Group Proximity Measure for Recommending Groups in Online Social Networks. *The 2nd SNA-KDD Workshop '08, 1*, 5-9.
126. Sander, T. (2005). E-Associations: Using Technology to Connect Citizens: The Case of Meetup.com. *The Annual Meeting of the American Political Science Association*, 1-10.
127. Schelling, T. C. (1978). *Micromotives and Macrobehavior*. New York: W. W. Norton Company.
128. Schuler, R. P. et al. (2014). The Doing of Doing Stuff: Understanding the Coordination of Social Group-activities. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 119–128.
129. Searle, J. R. (1990). Collective Intentions and Actions. *Intentions in communication*. Massachusetts: MIT Press. (pp. 401-415).
130. Segall, L. (2012). 'Social discovery' is this Year's Hot SXSW Trend. Retrieved October 22, 2017, from <http://money.cnn.com/2012/03/08/technology/sxsw-social-discovery/index.htm>.
131. Seta, J. J. (1982). The Impact of Comparison Processes on Coactors' Task Performance. *Journal of Personality and Social Psychology* 42, 281.
132. Shamir, J., Shamir, M. (1997). Pluralistic Ignorance Across Issues and Over Time: Information Cues and Biases. *The Public Opinion Quarterly*, 61, 227–260.
133. Shneiderman, B. (2011). Social Discovery Framework: Building Capacity and Seeking Solutions. In *Proceedings of the 8th ACM Conference on Creativity and Cognition (C&C '11)*, 307–308.

134. Soroka, V., Rafaeli, S. (2006). Invisible Participants: How Cultural Capital Relates to Lurking Behavior. In *Proceedings of the 15th International Conference on World Wide Web (WWW '06)*, 163–172.
135. Stewart, G. L., Manz, C. C. (1995). Leadership for Self-Managing Work Teams: A Typology and Integrative Model. *Human Relations*, 48, 747–770.
136. Strang, D., Soule, S. A. (1998). Diffusion in Organizations and Social Movements: From Hybrid Corn to Poison Pills. *Annual Review of Sociology*, 24, 265–290.
137. Sumi, Y., Mase, K. (2002). Supporting the Awareness of Shared Interests and Experiences in Communities. *International Journal of Human-Computer Studies*, 56, 127–146.
138. Sun, B., Ng, V. T. Y. (2012). Identifying Influential Users by their Postings in Social Networks. *Ubiquitous Social Media Analysis*, 128-151.
139. Sunnafrank, M. (1990). Predicted Outcome Value and Uncertainty Reduction Theories: A Test of Competing Perspectives. *Human Communication Research*, 17, 76–103.
140. Sunnafrank, M. (1988). Predicted Outcome Value in Initial Conversations. *Communication Research Report*, 5, 169–172.
141. Tajfel, H. (1978). *Differentiation Between Social Groups: Studies in the Social Psychology of Intergroup Relations*. New York: Academic Press.
142. Tajfel, H. (1981). *Human Groups and Social Categories: Studies in Social Psychology*. Cambridge: Cambridge University Press.
143. Terveen, L., McDonald, D. W. (2005). Social Matching: A Framework and Research Agenda. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 12, 401–434.
144. Tidwell, L. C., Walther, J. B. (2002). Computer-mediated Communication Effects of Disclosure, Impressions, and Interpersonal Evaluations: Getting to Know one Another a Bit at a Time. *Human Communication Research*, 28, 317–334.
145. Tilly, C. (2004). Social Boundary Mechanisms. *Philosophy of the Social Sciences*, 34, 211–236.
146. Tuckman, B. W. (1965). Developmental Sequence in Small Groups. *Psychological Bulletin*, 63, 384-399.
147. Tuomela, R. (2005). We-Intentions Revisited. *Philosophical Studies*. 125, 327–369.

148. Turner, J. C. et al. (1987). *Rediscovering the Social Group: A Self-Categorization Theory*. Oxford: Basil Blackwell.
149. Turner, J. C. (1984). Social Identification and Psychological Group Formation. *The Social Dimension: European Developments in Social Psychology*. Cambridge University Press. (pp. 518–538).
150. Turner, J. C. (1982). Towards a Cognitive Redefinition of the Social Group. *Cahiers de Psychologie Cognitive/Current Psychology of Cognition*, 1, 93-118.
151. Valente, T. (1996). Social Network Thresholds in the Diffusion of Innovations. *Social Networks*, 18, 69–89.
152. Wang, X. et al. (2012). The Impact of Membership Overlap on Growth: An Ecological Competition View of Online Groups. *Organization Science*, 24, 1–18.
153. Wellman, B., Gulia, M. (1999). Net Surfers Don't Ride Alone: Virtual Communities as Communities. *Networks in the Global Village*. Boulder, Colorado: Westview Press. 331–366.
154. Wessner, M., Pfister, H. R. (2001). Group Formation in Computer-Supported Collaborative Learning. *In Proceedings of the 2001 International ACM SIGGROUP Conference on Supporting Group Work (GROUP '01)*, 24–31.
155. Williams, K. et al. (1981). Identifiability as a Deterrent to Social Loafing: Two Cheering Experiments. *Journal of Personality and Social Psychology*, 40, 303.
156. Winograd, T. (1987). A Language/Action Perspective on the Design of Cooperative Work. *Human-Computer Interaction*, 3, 3-30.
157. Zajonc, R. B. (1965). Social Facilitation. *Science*, 149, (269-274).
158. Zimmerman, J. et al. (2007). Research Through Design as a Method for Interaction Design Research in HCI, *In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '07)*, 493–502.
159. Zimmerman, M. A., Rappaport, J. (1988). Citizen Participation, Perceived Control, and Psychological Empowerment. *American Journal of Community Psychology*, 16, 725-750
160. Webster's Dictionary. (2011). Interest Group.