

# Love Thy Neighbor (Or Know Them, At Least)

Cultivating Social Capital Online



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# Introduction

Disasters can take many forms including natural disasters, terrorist attacks, or viral epidemics, but they all cause widespread damage and disrupt people's livelihoods to the extent that there is a need for outside help (Wisner et al. 2011). Because of this massive scale of devastation, the first responders that we usually rely on may not be able to assist those in need for days or weeks, leaving neighbors to provide potentially lifesaving assistance to each other (Aldrich and Meyer 2015). There has been an increase in research that examines the relationship between social capital and disaster preparedness, and its effectiveness in facilitating community recovery post-disaster (Aldrich and Meyer 2015, Reiningger et al. 2013).

Social capital is defined as the "ability of actors to secure benefits by virtue of membership in social networks or other social structures" (Portes 1998, 6). Important components of social capital include trust and reciprocity, which can be fostered through increased interactions with people (Glanville and Andersson 2013). However, in a time when social interaction in informal settings has been rapidly decreasing in the United States (Putnam 2000), where will neighbors be able to socialize and build the trusting relationships that are so vital for establishing disaster resilience? Oldenburg (1999) introduces the idea of a third place: a place that is not home or work that can host regular, voluntary and informal gatherings of individuals, such as bars, cafes, barber shops, and community centers.

Although third places are typically brick and mortar establishments in which people can meet and mingle, several authors have written about the possibility of a "virtual third place" through computer mediated communication (Soukup 2006, Steinkuehler and Williams 2006). As of 2017, almost 50% of the world population has access to the internet (Internet World Stats 2017). Although there has been criticism of technology for actually promoting individualism and displacing crucial civic and social institutions (Putnam 2000), increasingly studies are indicating that social media can actually promote community engagement (Matthews 2016). Social networking sites can actually be a node in which people connect, and as a result, build social capital (Bouchillon 2014).

With that in mind, I will be exploring the question: To what extent can third places enhance the resilience of community networks before a crisis occurs? In this paper, I will examine a private social networking site called Nextdoor and its potential to be a virtual third place in which neighbors can build social capital with each other. I describe human responses and the use of social capital in disaster followed by important components of social capital, trust and reciprocity, then

connect that with components of third place. This leads into a discussion of influential frameworks, and then my study's situated context: a virtual third place in Portland, Oregon's Collins View neighborhood. The next section explains my methodology, which includes a quantitative survey and qualitative post analysis. After presenting my results, I discuss the implications of my findings for disaster preparedness and the feasibility of virtual third places. I argue that Nextdoor, when utilized in an urban residential setting, can serve as a tool for building social capital that not only facilitates information exchange and community sourced aid, but also promotes in-person interactions.

## Background

### Human Responses in Disasters

The media often portrays disaster aftermath with images of desolate, apocalyptic landscapes, looters ravaging dilapidated buildings while army tanks roll in trying to control the situation. Although this kind of antisocial behavior does occur, it's often blown out of proportion by these representations, and in reality it is dwarfed by emergent prosocial behavior, also described as nontraditional improvisation (Rodriguez 2006, Wachtendorf 2004). This kind of behavior is "emergent" in that it is spontaneous and creative, and often would not be acceptable in the norms and existing structures of daily life. In post-disaster examples from Hurricane Katrina and 9/11, most of the emergent behavior was prosocial in that it helped people evacuate a dangerous situation and/or helped them cope with the situation at hand (Rodriguez 2006, Kendra et al. 2003). In fact, disasters often encourage improvisation, collaboration, and cooperation since many social boundaries are brought down in the aftermath while everyone is focused on basic survival (Solnit 2009). One example of a collaborative improvisation post-disaster was the formation of the "student volunteer army" in Christchurch, New Zealand following their devastating earthquake in 2011 (Hayward 2013). The students organized themselves into a group numbering over 24,000 to help with the clean up efforts. After Hurricane Katrina, a group of neighbors banded together as the self-proclaimed "Robin Hood Looters," and commandeered boats to save neighbors from the floodwaters in their working-class neighborhood (Rodriguez 2006). After the 1906 earthquake in San Francisco, residents created a refuge in Golden Gate Park, cooking meals in makeshift, outdoor kitchens for each other and sharing resources (Solnit 2009). These are just a few of many examples of prosocial, improvisational behavior that emerge from citizens affected by disaster.

## The Importance of Social Capital in Disaster Response

The concept of social capital has been adopted by many different disciplines, but originated in the field of sociology. Although the concept did not have a name back in the 19th century, it's argued that the practice of social capital can be traced back to Durkheim and Marx (Portes 1998). James Coleman was one of the first scholars to popularize it as a concept in social theory in the United States. He describes social capital as facilitating productive activity just like physical and human capital, but it's less tangible because it exists in the *relations* between people (Coleman 1988). It consists of accessing and connecting resources found through social networks comprised of friends, family, and community members. Some scholars argue that social capital is one of the most significant resources used to respond to natural disasters (Aldrich and Meyer 2015, Dynes 2006). On the individual scale, social capital is not only important for relief and reconstruction, but also for planning and decision making. During Hurricane Katrina, social ties influenced whether people evacuated or stayed in their homes, as well as how resilient they were in recovering (Hawkins and Maurer 2010). Social capital also ensures that communities are taken care of after disasters, from deterring the dumping of rubble to communicating needs to the right authorities (Aldrich 2012). In the wider realm of risk communication, Haynes et al. (2008) found that friends and family are the most trusted source of information regarding risk perception. This has important implications for disaster preparation and evacuations, because it may be more effective to disseminate information via social networks instead of through (or, in addition to) scientists or government officials.

Scholars have split social capital into three types: bonding, bridging, and linking (Szreter and Woolcock 2004). Bonding social capital occurs between people who are similar in some way, resulting in tight bonds, such as family members or students who go to the same university (Putnam 2000). Bridging social capital refers to relationships that span social groups, including socioeconomic status, age, race, and gender (Szreter and Woolcock 2004). For example, bridging social capital could occur between two students who attend different universities, or between a long-term resident of a neighborhood and a newcomer from a different city or culture. Linking social capital involves connecting citizens with a group that has power over them, such as a political representative (Szreter and Woolcock 2004). These types of social bonds can fulfill various needs post-disaster such as finding shelter and receiving financial or emotional assistance, which isolated individuals are less likely to have access to (Aldrich and Meyer 2015). Ozanne and Ozanne found that "well-connected communities are better able to mobilise and voice their concerns.

Embedded networks benefit those individuals who are part of this network and raise the cost of leaving a community" (2013, 40). Not only is social capital important in disaster response, it's also important for the reconstruction phase.

## Trust and Reciprocity

Social capital operates on the basis of close, trusting relationships within communities. Coleman (1988) describes this kind of trust as obligations and expectations, or a kind of delayed reciprocity within a community. Generalized reciprocity is the concept of doing something for something now without expecting anything in return, with the understanding that they or someone else will return the favor in the future (Putnam 2000). One classic example of reciprocity is borrowing a cup of sugar from your neighbor -- although they don't expect immediate payment for that sugar, they have an understanding that if they needed to borrow an iron from you a few months later you would oblige.

Trust can be grouped into two categories: "thick" or "knowledge-based" trust that is embedded in strong, frequent relations, and "thin" or "general" trust that is extended to strangers within a shared social network based off of the expectations of trustworthiness (Yamagishi and Yamagishi 1994). We might have thick trust with our nextdoor neighbor who we've known for years, but thin trust with the young couple down the street that just moved into the neighborhood. Generalized or "thin" trust is the most important for social capital operating on a neighborhood scale because it extends the radius of trust beyond people we have personal connections with, giving other people the benefit of the doubt (Putnam 2000). In a longitudinal study, Glanville and Andersson (2013) found that increased socializing with informal social ties increases generalized trust. Therefore, more opportunities people have to interact can increase generalized trust in the neighborhood -- but where are these hubs of interaction in our current society?

## Virtual Third Places

Virtual communities take many forms, from chat rooms to multiplayer games to online businesses. Although virtual communities are convenient because they can transcend time and location barriers, they also eliminate an important component of building trust face-to-face: nonverbal communication (Kasper-Fuehrera and Ashkanasy 2001). Ironically, the author who coined the term third place does not believe that third places can be online. Oldenburg states that "the home entertainment industry thrives in the dearth of the informal public life among the American middle class. Demand for all manner of electronic gadgetry to substitute vicarious watching and

listening for more direct involvement is high" (1999, 12). The home entertainment and media system has transformed since 1989, when the first edition of Oldenburg's book was published. Since then, scholars have studied online video game communities as potential third places, and found that they match up with Oldenburg's listed characteristics (Soukup 2006, Steinkueler and Williams 2006).

**Table 1: Oldenburg's (1999) eight characteristics of third place, as adapted by Steinkueler and Williams 2006.**

<b>Characteristic</b>	<b>Definition</b>
Neutral Ground	Third places are neutral grounds where individuals are free to come and go as they please with little obligation or entanglements with other participants.
Leveler	Third places are spaces in which an individual's rank and status in the workplace or society at large are of no import. Acceptance and participation is not contingent on any prerequisites; requirements; roles; duties; or proof of membership
Conversation is the main activity	In third places conversation is a main activity in which playfulness and wit are collectively valued.
Accessibility & Accommodation	Third places must be easy to access and are accommodating to those who frequent them.
The Regulars	Third places include a cadre of regulars who attract newcomers and give the space its characteristic mood.
A Low Profile	Third places are characteristically homely and without pretension.
The Mood is Playful	The general mood in third places is playful and marked by frivolity; verbal word play; and wit.
A Home Away from Home	Third places are home-like in terms of Seamon's (1979) five defining traits: rootedness; feelings of possession; spiritual regeneration; feelings of being at ease; and warmth.

Table 1 describes the eight characteristics of third place: neutral ground, leveler, conversation is the main activity, accessibility & accommodation, the regulars, a low profile, the mood is playful, and a home away from home (Oldenburg 1999). Soukup describes the benefits of third places to both the individual and the community:

For the individual, the third place offers relief from the stressful demands of work and home life and provides the feeling of inclusiveness and belonging associated with participating in a group's social activities. For the greater community, the third place strengthens community ties through social interaction, fosters commitment to local politics via informed public discourse and promotes safety and security through open and visible interaction. (2006, 423)

Overall, third places strive to create a sense of place for people, and to reconnect them with their immediate surroundings in a rapidly globalizing world.

## Frameworks

I adopted the theoretical framework used by Steinkuehler and Williams (2006) which was based off of Oldenburg's (1999) discussion of third places. Steinkuehler and Williams used this theory of a third place to measure the feasibility of a multiplayer gaming community as a virtual third place, which is what I did using the app Nextdoor. Additionally, I utilized the framework of Afzalan and Evans-Cowley's (2015) analysis of the ability to activate citizen planning via a private Facebook group as a method of analysis. Their paper provided me with thematic baselines which I then applied to my own study.

## Situated Context

I chose to examine Nextdoor because it encourages neighbor-to-neighbor interactions in an online setting. Nextdoor is a unique platform in that it has all the capabilities of mainstream social media sites like a news feed with user-generated posts, commenting, "thanking" posts, posting photos, and creating events, but it has an added component of place: all Nextdoor users have to confirm where they live to gain access to their neighborhood content. Nextdoor acts as a kind of virtual third place for people to interact, but it also holds potential for people to meet in person since everyone lives in the same neighborhood. This aspect of locality and place is important in building third places, but is often absent from other computer mediated communications (Soukup 2006). Other studies have examined similar topics of online community engagement via private Facebook groups, which could also be a viable medium since it has a focus on local issues (Afzalan



and Evans-Cowley 2015). However, none of these studies have examined Nextdoor, or any app with a location requirement.

In a geographic sense, this study is situated in Portland, Oregon. Portland lies inland of the Cascadia Subduction Zone, which can produce devastating earthquakes of magnitude 9.0 on the Richter Scale (Oregon Resilience Plan 2013). Oregon is currently unprepared for this kind of disaster: there will not be enough first responders to get to every community in need, so the Oregon Seismic Safety Policy Advisory Commission (OSSPAC) recommended that communities begin to formulate their own plans for survival (Oregon Resilience Plan 2013). The director of the Portland Bureau of Emergency Management, Carmen Merlo, urges people to get to know their neighbors, as social cohesion is a big indicator of resilience (Gragg 2014). It is especially important to start building community networks in Portland since there is no earthquake culture, as the last destructive quake that struck the region occurred in 1700. With no public memory of earthquakes, residents are less likely to be less aware or prepared than in places that have more regular exposure to earthquakes. This study will focus on the Collins View neighborhood in southwest Portland as a case study. I constrained my study area to the Collins View neighborhood since in the event of a disaster, roads may be destroyed and people will need to walk everywhere. Collins View is approximately 465 acres or 0.7 square miles, so both human and material resources in the neighborhood would most likely be attainable by foot. Since Nextdoor requires confirmation of residence when signing into a neighborhood's social network, Collins View was most accessible to me because I live in the neighborhood.

## Methods

There were two components to my methodology; a content analysis of Nextdoor posts, and a corresponding survey that I distributed via Nextdoor. These two methods were aimed towards answering the question: What kinds of interactions are taking place between neighbors, and are they helpful or harmful in creating social capital? The qualitative analysis sought to determine the main themes of interaction. The survey was a way for Nextdoor users to self-report, so I used it as a way to compare my own observations with the users' perceptions. I designed the survey to gauge the possibility of Nextdoor being a virtual third place and as an extension, a place for neighbors to build social capital.

Collins View has 675 neighbors signed up on Nextdoor, with 2,775 in surrounding neighborhoods as of March 2017. Although I filtered out posts by the other neighborhoods, if a

Collins View neighbor decided to share their posts with the surrounding community, those community members could reply to posts. Additionally, Collins View neighbors have the option to see the posts in the surrounding neighborhoods, so the interactions in those neighborhoods could affect their overall perceptions of Nextdoor, and influence my own data of the type and number of relationships formed between neighbors. These perceptions of other neighborhoods could impact the survey results and the overall feasibility of Nextdoor as a third space, since it widens the geographic space that these communities come from and therefore could become less relevant for Collins View neighbors.

I analyzed forty-eight posts that were posted between October 1st, 2016 and December 8th, 2016. Although there were actually 173 posts in Collins View during this time period, I chose to analyze these particular posts because they each had four or more replies to them. Of the 173 posts, the average number of replies was 2.84, so I decided that four posts signified that the post was of above-average interest to people. Additionally, four replies would either allow for four different people to reply to the post, or a reply and subsequent follow up from two people, which could indicate a more meaningful exchange for each of them.

After Portland experienced some severe winter weather, arguably a small-scale disaster that shut down the city for several days, I decided to perform a second analysis to see what role Nextdoor played in facilitating connection during this time. This analysis consisted of 168 posts between December 11th and January 17th, roughly when the winter weather began and ended. This volume of posts in a little over a one-month period was close to the post total of my first analysis that was over a span of two months. The average number of replies in this period was 3.97, which was a noticeable increase from the previous period. For consistency, I continued to analyze posts with four or more replies, of which there were sixty in this period.

I analyzed the forty-eight posts for themes and sub-themes of interaction, beginning with the “categories” already available on Nextdoor: Classifieds, Crime & Safety, Documents, Free Items, General, Lost & Found, and Recommendations. Many of the posts in General had to be recategorized into more specific categories which were Lost & Found, Recommendations, Local Requests, Safety, Local Knowledge, Planning/Engagement, Animals, Service, Free Items/Classified, Gatherings/Collective Identity, and Personal Opinions.

I created and administered the survey to determine how consistent my observations were with the neighbors’ self-reported perceptions. The survey (Appendix A) is important in measuring certain attitudes like trust or annoyance that are difficult to extrapolate from the qualitative post analysis. Additionally it provides demographic and usage data that would otherwise be unknown. I

formulated a question to indirectly access levels of trust by examining behavioral manifestations of social capital in daily life (Aldrich and Meyer 2015). Another question tailored Oldenburg's eight characteristics of third place to Nextdoor's functionalities, which aimed to determine whether participants considered Nextdoor a virtual third place (Oldenburg 1999). I also included basic usage questions, such as which "category" people thought was most useful, whether or not they would recommend Nextdoor to a friend, how many neighbors they had met in person because of the app, which demographic they thought used it most, and how often they use it. To understand potential problems with Nextdoor, I included a question about negative aspects of Nextdoor, as well a question to identify groups people saw as bothersome in the neighborhood. In the second section of the survey, I included demographic information such as years living in the neighborhood, age, gender, race, education, and living situation.

## Survey Results

The majority of survey participants were white (95.2%), female (60.9%), aged 40-65 (51.6%) with a postgraduate degree (45.2%). Most participants lived in a one to two person household (56.3%) that they owned without children (49.2%), for over 15 years (45.3%). Most neighbors check their accounts either a few times a week (43.8%) or every day (40.6%) (Appendix B). Out of the 64 survey participants, 63 of them would recommend Nextdoor to a friend. Over half (56.2%) of the participants had met a neighbor in person because of Nextdoor.

Out of the behavioral manifestations of social capital in daily life included on the survey (Aldrich and Meyer 2015), in other words the amount of trust people exhibit towards neighbors met on Nextdoor, providing a needed service was highest (72.6%), followed by meeting for a social activity (71%), borrowing an item (62.9%), then feeding a pet or watering plants while away (51.6%). Participants were least comfortable doing more intimate tasks for each other such as enjoying a meal together (22.6%), house-sitting while away (16.1%), providing or receiving child care (12.9%), or giving someone a key to their house in case of emergency (4.8%).

Participants predominantly associated Nextdoor with three characteristics of third place: conversation (82.8%), accessibility (75%) and community (62.5%). The other five characteristics received less than 50% of participant consensus.

Most of the questions had a full participation rate, with between 62-64 out of 64 participants answering. However, the questions aimed towards identifying negatives associated with the neighborhood or Nextdoor had a lower participation rate. There were only 33 responses to

the question aimed towards identifying bothersome groups: College students and Other bothered the most people at 36.4% and 30.3%, respectively. Only 42 participants answered the question about negative aspects of Nextdoor, with irrelevant posts being the biggest complaint (50%) followed by people “attacking” others’ posts (38.1%).

**Table 2: Summary of Survey Results**

<b>Topic</b>	<b>Response</b>	<b>%</b>
Major uses of Nextdoor	General	76.6
	Crime & Safety	70.3
	Neighborhood Information	68.8
	Recommendations	62.5
	Classifieds	48.4
	Services	43.8
	Information from local organizations	42.2
	Free Items	32.8
	Lost & Found	26.6
	Other	3.1
Neighbors met in person due to Nextdoor	0	43.8
	1-3	34.4
	3-6	6.3
	6-10	9.4
	10+	6.3
Behavioral manifestations of trust	Provide a needed service	72.6
	Meet for a social activity	71
	Borrow an item	62.9
	Feed a pet or water plants while away	51.6
	Enjoy a meal together	22.6
	House-sit while away	16.1

	Provide/receive childcare	12.9
	Give them a key to your house in case of an emergency	4.8
Nextdoor as a virtual third place	Useful conversation/posts	82.8
	Easily accessible	75
	Makes me feel like part of a community	62.5
	Helps me get to know my neighbors	48.4
	It's a neutral platform for me to share information on my own terms	43.8
	Informal way to stay active	35.9
	Enjoyable culture of interaction	32.8
	I'm accepted regardless of my rank or status elsewhere	25
Negative associations with Nextdoor	Irrelevant posts	50
	People "attacking" others' posts	38.1
	Not enough community participation	26.2
	People post too much	23.8
	Offensive posts	14.3
	Inaccurate information	9.5
	People are exclusive of certain groups	2.4
Perceived active members	Long-term neighbors	85.5
	Neighborhood newcomers	67.7
	Neighborhood organizations	59.7
	City-wide organizations	29
	College students	19.4
	Teenagers	16.1
	Other	11.3
Bothersome groups	College students	36.4

	Other	30.3
	Strangers	27.3
	Pet owners	21.2
	Visitors/people passing through	15.2
	Teens	15.2
How often do you look at Nextdoor?	A few times a week	43.8
	Every day	40.6
	Once a week	10.9
	Once a month	3.1
	Barely ever	1.6
Would you recommend Nextdoor to a friend?	Yes	98.4
	No	1.6

There was a section in the survey to write a short response if desired; of the 64 participants, 16 wrote responses. Most of the responses were positive, though six of them mentioned posts “attacking” people, getting too political, or being irrelevant. Several responses praised Nextdoor as a useful social tool that promotes a small town feel and local get-togethers. Below is one vignette of a Nextdoor success story:

I moved here 9 months ago. I am retired and came from a small rural community in CO mountains. I am used to easy relations with neighbors. I felt isolated my first weeks here until I discovered Nextdoor. I have gotten and given free items, have shared information on local gardening and services needed. I met 2 neighbors because of items offered, we see each other occasionally. I do not feel so isolated!

In summary, the survey results indicated positive perceptions of Nextdoor, with the biggest concern being irrelevant posts. Participants also reported high willingness to participate in behavioral manifestations of trust, though they were generally informal, low-commitment activities as opposed to higher commitment and more personal activities.

## Content Analysis Results

I conducted this analysis based on the five themes proposed by Afzalan and Evans-Cowley (2015). The five themes are a) asking for help, b) information, c) community, d) buying/selling, and e) personal. Within these five themes, I identified sub-themes during the qualitative analysis by grouping posts together with similar key phrases. This section will discuss the themes and sub-themes, and include vignettes of posts that I analyzed.

### Asking for Help

This theme had a total of 47.9% of posts from October to December, and 31.6% of posts during the snow storm. This theme encompasses three sub-themes: lost & found, recommendations, and local requests, which are listed below with example posts. Recommendations consistently had a large number of replies (6+), as did Lost & Found posts.

- Lost & Found
  - MISSING CAT: Our dark grey cat has been missing since yesterday at 2pm. He does not have a collar. His name is Ernie and he has a very loud meow!! Thank you!!! (XXX) XXX-XXXX
- Recommendations
  - Looking for a good Christmas tree lot: Does anyone recommend a local lot for price, selection and service?
  - Plumber and Electrician: Do anyone know a plumber and electrician for a remodel?
- Local Requests
  - Looking to borrow a few fondue pots: My 12 year old daughter would like to have a fondue party and we are looking to borrow a few fondue pots if anyone is willing to lend theirs out. They would be returned December 3 (party is December 2). Feel free to PM me. Thanks so much!
  - [During winter weather while roads were icy] Need Ride to Blazer Game: Any one going to the Blazer game tonight? We are right across from Lewis & Clark and the roads aren't too bad but we have 2 sedan type vehicles without great tires so don't want to risk it. Wondering if anyone going to the game could give us a ride. We have a ride home.

## Local Information

This section made up 31.3% of posts from October to December, and 43.4% of posts during the snow storm. The sub-themes include safety, local knowledge / information, and planning / engagement. These posts included local information, correspondence with local organizations, safety information, road conditions, and neighborhood meetings.

- Safety
  - USE CAUTION: Intersection at SW Ridge and SW 2nd: Please use caution. There are several 4-5" rocks mixed in with the debris covering roadway here. They are small enough not to see and large enough to do some real damage. I recommend using an alternate route altogether after dark. SIDE NOTE: Should the neighborhood have a stash of large orange cones somewhere for situations like this? If folks think that's a good idea, I'll pick some up next week.
  - Loud boom: Does anyone know what the loud booms in the vicinity of Tereilliger and Alice street are? This is the third or fourth night in a row. Sounds like a shot or fire cracker???
- Local Knowledge
  - Did anyone in Collins View get their mail delivered today (Monday)?: At least two of us on View Point Terrace didn't, but had delivery on Friday and Saturday... Just curious.
  - play in the snow!: Where can we walk to in the neighborhood for safe sledding and snow fun? Just moved to the neighborhood this fall.
- Planning / Engagement
  - Collins View Neighborhood Meeting: Please join the neighborhood meeting at Riverdale High School next Wednesday, Nov 2, at 7 PM. Among other things we will be discussing the proposed footpath project. If you have concerns or topics you wish to be addressed, please email me so we can get them on the agenda.

## Community

These posts comprised 10.5% of posts from October to December and 16.6% of posts during the snow storm. They were posts that brought groups together in some way, either physically or over a common interest. The sub-themes are animals, service, and gatherings / collective identity.

- Animals
  - 8-point Buck sighting at Greenwood Hill Cemetery: What a treat! While walking the pup this morning around 7:30am, a nice sized 8-point Buck wandered into the Cemetery off the



SW Boones Ferry entrance close to SW Palantine Hill Rd. Unfortunately, I didn't have my phone on me to snap a photo. Be on the lookout, he's quite a spectacular sight to see. I've seen a few doe in RVNA but never a buck especially his size.

- Humming bird feeder rig--- ideas?: Our little hummingbirds are really struggling in this weather. We are trying everything to keep the food coming. Anyone else have any better ideas? Please post a photo if you do. Thanks!
- Service
- Emergency Relief Efforts: Urgent Winter Items Needed: [excerpt] ...As I can only imagine, this weather is absolutely beautiful from the comfort of our homes and just brutal if you have to live in it. Perhaps we can do a bit of good from this neck of the woods. Thanks for listening!
- Gatherings / Collective Identity
- happy hour at our Igloo -today at 4:30: When life gives you snow, make snow cones! Now is the time to continue to build our community - so let's gather around the community igloo we made yesterday for snow cones and connections! All welcome. Snow cones will be served. If you'd like to offer something else to share, please feel free to bring something. Otherwise please now that your presence is the gift we seek. Igloo is located on XXXXXX. Hope to see You soon.

## Buying / Selling

This theme comprised 8.3% of posts from October to December and 5% of posts during the snow storm. Most of these posts had the potential for neighbors to meet in person to exchange the items.

- Free Items / Classifieds
- Free treadmill: Nice treadmill looking for a good home. Sole 63, deck raises up for storage. Message back thru Next Door
- Les Schwab Quick Fit Sport LT Tire Chains \$25: Model # 2318 Les Schwab Quick Fit Sport LT Tire Chains \$25.00. Fits 225 70 16 tire size as well as other sizes (Per Les Schwab). Used once.

## Personal

These posts made up a mere 2.1% of posts from October to December, and 3.3% of posts during the snow storm. They were usually related to recommendations (or more specifically, bad experiences) but were categorized here if they involved a more biased opinion based off of a personal

experience, or could be seen as “ranting”. These posts were unsolicited by other members (contrary to people asking for recommendations) and usually negative in tone.

- Opinions

- Stolen shovel: Some nice guy came to our door this morning and asked to borrow a shovel to dig out his car. My wife was trusting and gave him our shovel. Needless to say, the shovel was not returned. Damn, it was a nice flat-scoop shovel that's nice for scraping hard snow and ice. I'm sorry as my trust in humanity just went down a notch.
- Taco Bell: Has anyone visited the new Taco Bell that opened up on Barbur? I personally don't eat their food but I have gone there to get food for my son. The service and quality are beyond horrible. I went to the drive thru last night at 9:05, got to the speaker at 9:25 (there were 3 cars ahead of me). The girl taking orders told me to wait and didn't come back to take my order until 9:38. By that time, there was no one in front of me. When I got to the window, it took another 10 mins for the food. I finally got the food and brought home to my son; when he opened the bag, there were 7 items of the exact same thing, none of which we ordered! I called the Mgr and she said she was busy training people and didn't have time to talk to me! Save your self the headache and don't go there!

Twenty-three of the forty-eight posts I analyzed from October to December 2016 had the potential for people to meet in person, which is a total of 48%. Many of the interactions within posts that presented a potential for the neighbors to meet in person were in Classifieds and Lost & Found, since neighbors generally met to exchange the lost animal or bought item. Only five of the posts from the snow storm period had the potential to meet in person (8%). This could be due to limited mobility of people during this period, as the ice and snow deterred most people from going outside. However, there were several posts during this period that were specifically targeted at having a neighborhood gathering to build community and bond over the extreme weather over shared snow cones. Animals were at the center of many of the community-building posts I analyzed, often resulting in an in-person meeting as well (returning a lost animal to its owner, for example). There are also generally a high volume of replies to posts about hummingbirds, especially when the cold weather was threatening their food supply.

**Table 3: Summary of the Content Analysis Results**

<b>Theme</b>	<b>Pt. 1 Total %</b>	<b>Pt. 2 Total %</b>	<b>Sub-theme</b>	<b>% part 1</b>	<b>% part 2</b>
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Help	47.9	31.6	Lost & Found	12.5	3.3
			Recommendations	16.6	21.6
			Local requests	18.8	6.7
Information	31.3	43.4	Safety	6.3	26.7
			Local Knowledge / Information	10.4	16.7
			Planning / Engagement	14.6	0
Community	10.5	16.6	Animals	6.3	10
			Service	0	1.6
			Gatherings / Collective Identity	4.2	5
Buying / Selling	8.3	5	Classifieds / Free Items	8.3	5
Personal	2.1	3.3	Opinions	2.1	3.3

In summary, most neighbors used Nextdoor to give or receive help or discuss local information. Usually giving and receiving help was the most used, but during the snowstorm local information became the most used category. There were a number of posts related to community, particularly around dogs, cats and hummingbirds in the neighborhood. Although there weren't large quantities of these posts, the number of replies on the ones that did appear suggested that this was a topic of interest to a number of neighbors. Buying and selling items were usually straightforward and did not have many replies, though they were more likely to end in an in-person meeting to exchange the item. There were not many posts about personal opinions, though personal opinions sometimes came up in comment threads.

## Discussion

Virtual communities like Nextdoor are gaining interest and membership -- within the four months of my study period, Collins View gained 50 members. As illustrated in the survey, most people had more positive perceptions of Nextdoor than negative ones, and even demonstrated generalized trust towards other neighbors through their willingness to engage in trust based activities with others. This suggests that Nextdoor is a successful virtual third place in Collins View, and this forum is a constructive way to cultivate the generalized trust and reciprocity needed for social capital.

## Survey

The survey results indicate that participants enjoy using Nextdoor as a tool for socializing and gathering information. The majority of participants thought Nextdoor has good conversation/posts, accessibility, and community, which are important aspects of third space. Oldenburg argues that the “cardinal and sustaining activity of third places everywhere” is conversation (Oldenburg 1999, p. 26). Although “leveler” and “neutral ground” did not score as highly, these two characteristics merely set the stage for promoting conversation. If conversation is already happening successfully, the fact that those characteristics scored lower matters less. Accessibility as a coveted trait of Nextdoor has important implications for users. Oldenburg writes that “third places that render the best and fullest service are those to which one may go alone at almost any time of the day or evening with assurance that acquaintances will be there” (1999, 32). As a virtual third space, Nextdoor is accessible to people all hours of the day, from anywhere they have internet access and a device to use. This opens the community up to all kinds of people -- people who have long shifts or work two jobs, people with disabilities, and people with low mobility, for example, can still remain part of their community through this private social media network. This type of accessibility may not even be available to these people in traditional third places, adding additional value to the virtual aspect of Nextdoor. However, Steinkuehler and Williams (2006) point out important barriers as well: virtual third places require having a phone, tablet or laptop, and internet access, which can be quite expensive. Furthermore, although it may be readily accessible to some, “to a person unfamiliar with contemporary technology, the strangeness, expense and complexity of a personal computer produces anxiety and fear, not warmth and accessibility” (Soukup 2006, 429). Therefore it may be accessible to younger generations that know and feel comfortable with technology, but inaccessible to people unfamiliar with technology.

The fourth most selected characteristic was “helps me get to know my neighbors” at 48.4%. This characteristic was most closely associated with the original characteristic of “the regulars.” Oldenburg suggests having a regular introduce a newcomer, and urges regulars to welcome and accept newcomers. Nextdoor has a system of introducing new people to the online neighborhood community that is similar to these suggestions: existing users can “invite” their neighbors to join, and once people do join, there’s an option to introduce yourself via a post broadcasted to the neighborhood, and people can “welcome” newcomers into the neighborhood.

One benefit of third places is that they are a leveler, and in the online context, this is even more true since people can't see each other except for the profile photos they choose to display. In neighborhoods that are more heterophilous, eliminating stereotypes associated with appearance could allow for more bridging connections without any subconscious discrimination or judgement. Conversely, virtual third places also introduce the opportunity for more cyber bullying or harassment since people can hide behind the comfort of their own screen. The localized nature of Nextdoor may discourage this though, since users know that they live near each other and have a higher likelihood of running into each other in person than on an anonymous online forum. Although not all eight of the characteristics of third place scored highly in the survey, "the first and most important function of third places is that of uniting the neighborhood" (Oldenburg 1999, xvii), which it appears to be doing in Collins View.

Participants selected behavioral manifestations of trust that seemed typical of acquaintances such as providing a needed service, meeting for a social activity, and borrowing an item. These findings also align with the characteristics of third places: people are more likely to meet on neutral ground where they can come and go as they please, which might explain why more people are willing to meet for a social activity and less likely to commit to sitting down to enjoy a meal together (Oldenburg 1999). Additionally, these results could correspond to the demographic of the neighborhood. Perhaps a neighborhood with more children would require more childcare, or a neighborhood with more single people like college students or young professionals would be more likely to house-sit.

Although participation was low when reporting groups that participants had been bothered by, college students were at the top of the list. In the same way that positive informal interactions can generalize trust to a larger group of people, negative associations can also be generalized to a larger group, namely college students. College students bring a unique skill set to neighborhoods both in disaster times and not: in everyday life, college students have a schedule that is conducive to helping with childcare and house sitting, since they don't have a 9-5 job. Both in everyday life as well as after disasters, students are usually youthful and able bodied, so they can help with physical labor. This could be especially useful after an earthquake if people need to dig through rubble or move materials from one place to another without a car.

## Content Analysis

Help and Information comprised most of the posts that I analyzed in this period, both in the initial period and the severe winter weather. Giving and receiving help via Nextdoor could be really

beneficial to the community, since those are the informal interactions at the core of reciprocity and trust. If someone needed help and received it by posting on Nextdoor, they will be more likely to help someone else who asks for help later on. Within the Help theme, Lost & Found often got a lot of replies. Most of the Lost & Found posts were about neighborhood animals, and resulted in neighbors meeting each other to retrieve their animal, as well as gratitude towards the finder. This kind of interaction could also facilitate important delayed reciprocity and generalized trust: the people who had lost something and retrieved it thanks to a neighbor could then feel obligated to “pay it forward” in the future, catalyzing a chain reaction of good deeds in the neighborhood. When people who are not involved in the Lost & Found process see those posts and see that the item or animal was safely returned to its owner, it demonstrates that people in the neighborhood are generally trustworthy, which benefits the entire community. Similarly, the Recommendations subtheme usually garnered a lot of replies. I see this use of Nextdoor as an important way to initiate participation. I would often see names other than the “regulars” who usually post on Nextdoor giving recommendations on their favorite bakery or their trusted handyman.

Although the Community theme did not have as many posts, they often invited more comments. The post about the 8-point buck sighting resulted in seven comments, both thanking the poster, expressing appreciation for the neighborhood, and excitement about its mere presence. The post about hummingbirds garnered twelve replies, all with creative ideas about how to unfreeze their hummingbird feeders. Another post about hummingbirds occurred in the same time period, and got twenty-three replies of a similar nature. In a post called “MISSING CAT -- FOUND” [title updated by poster], there were seventeen replies, both wishing the person luck with finding the cat, sympathizing, and celebrating once it was found.

One of Community’s subthemes was Animals. It’s easy to see how much Collins View neighbors adore animals through these posts and the Lost & Found animals posts. This love of animals has interesting disaster preparation implications. Animal attachment could actually provide a pathway for emergency planners to distribute important disaster information by “piggybacking” it on information about animal welfare in disasters. One study found that this method of communication was effective in building resilient behaviors that promoted survival and facilitated recovery (Thompson et al. 2014). Since animal and human welfare are closely linked, by preparing a pet for emergency it could be easier to also prepare the owner.

Buying and selling items had the potential for neighbors to meet in person when exchanging the item. There was some frustration at times when people did not select the proper category for posting their items and they ended up in General. The interactions in this category

were usually very straightforward; they were helpful to the people who wanted to buy or sell items, otherwise they were not acknowledged by the other users.

The Personal subtheme was a source of some tension in the community. This could be a response to the already negative tone of the content in some of the Personal posts, but comments tended to lead to misunderstandings or hurt feelings for the poster or commenters. Usually someone else would come in and defend one of the viewpoints, which led to a small divide in the sense of community, or resulted in the “attacking” feeling that people reported in the survey. Successful third places don’t require everyone to like each other. Rather, it’s important to know how everyone adds to and subtracts from the community’s general welfare, as well as what they can contribute in the face of various problems that arise.

### Snow Storm

The snowstorm period ended up not having many differences to the initial period. There was definitely a higher volume of posts during the snowstorm (60 vs. 48), and more replies to posts (an average of 3.97 replies vs. 2.84 during the initial period, before filtering out posts with less than 4 replies): this could partly be due to the fact that people were snowed in for several days, which allowed for more time to be active on Nextdoor. The other difference was that there were more interactions around local information instead of giving and receiving help.

During this period, some people exhibited what appeared to be emergent prosocial behavior and utilized the community on Nextdoor to achieve this. Several neighbors banded together to make caution signs that they placed on particularly treacherous streets by taping them to their trash cans as makeshift sign posts. They also put out a call to neighbors on Nextdoor for orange cones and caution tape. One neighbor suggested posting the road hazard to the Waze app so that people would know not to drive up that street. After someone posted about a truck that was abandoned in the middle of a steep hill, someone used their own truck to pull them back to safety. Although not as emergent, another user offered her four wheel drive vehicle to neighbors who needed to pick up medications from the pharmacy or run other urgent errands.

Help and Information were utilized the most by members of Nextdoor Collins View, although their percentages swapped during the storm analysis and the initial analysis: initially Help made up 47.9% and Information 31.3% of the posts, but during the storm Help comprised 31.3% and Information jumped to 43.4%. This was an interesting finding, since I would have predicted that help would increase during the storm. However, within the Local Information theme, the Safety subsection of the Information theme could have arguably been a type of help. In many of the

instances, especially during the snowstorm, the safety posts were also meant to help people by warning them not to go certain places and essentially giving them proactive help so they don't get caught in a sticky situation. In fact, Information Potential is one of the forms of social capital that Coleman (1988) describes. Social networks provide the channels through which individuals can communicate, develop a perception of risk, and gain motivation to take some kind of preventative action (Dynes 2006). This lines up with the Protective Action Decision Model (PADM) that Lindell and Perry (2012) present. They present a flowchart illustrating the factors that influence individuals' adoption of protective actions in the face of risk. The first step in the flowchart is information seeking, and if individuals don't find the information they need to make a decision, they will continue to seek until they find that information. Since there was an abundance of information about local road and weather conditions posted on Nextdoor during the storm, people could proceed to take protective action by abstaining from driving, covering their exposed pipes to prevent them from freezing, and use chains on their tires as needed. In this sense, sharing information could have been considered Help as well.

During the snowstorm, the Classifieds category took on a more important role. During this time, people were seeking and offering cold weather clothes, snow boots for their kids, sleds, and tire chains. It was one of the only ways for people to obtain items that they would not have been able to get otherwise, since they weren't able to drive to the store.

The decision to include the snowstorm in my analysis was not to see how useful Nextdoor is as a tool post-disaster, because in the catastrophic earthquake we will likely not have power or internet for weeks to months after the event. Rather, it was a useful exercise in observing the social cohesion already present in the neighborhood. It wasn't drastically different from the initial period's analysis, but it did demonstrate the community's ability to come together, look out for each other, and build more trust in this time of increased urgency.

## Social Capital

It is important to consider the type of social capital being built in the neighborhood. Based off of the sample group described above, Collins View appears to be very homophilous in demographic terms, suggesting that bonding social capital may be the predominant type of social capital being formed. This has both positive and negative effects. Although bonding social capital can allow people to receive warnings, locate shelters, and receive life-saving assistance, it can also encourage people to stay behind if loved ones don't want to evacuate (Hawkins and Maurer 2010).



Although each individual type of social capital is valuable, combining all three offers the best chances for community resilience (Hawkins and Maurer 2010).

Although the community is generally homophilous, people complained about college students in both the survey and in posts that I analyzed. Most complaints were about college students being loud and drunk while stumbling through the neighborhood. Lewis & Clark students, although transient members of the community, could still be very important to community resilience after an earthquake by transporting goods, clearing rubble, and accessing their own networks. Collins View may want to consider building some more bridging social capital with students and the college, since the neighbors and students could be mutually beneficial to each other.

During the course of my research, I met four of my neighbors because of Nextdoor. I borrowed a shovel from one of them, babysat for a family once a week over the course of three months, walked another neighbor's dogs and house sat for them on another occasion, and attended a local event with another. All of those interactions were beneficial to us both, and one neighbor even mentioned that even though I'll be graduating, she now feels more comfortable finding another Lewis & Clark student to walk her dogs because of our exchange. Although these experiences are purely anecdotal, they could indicate the ability for Nextdoor to enhance bridging social capital between neighbors and college students. When neighbors have positive personal interactions as opposed to negative impressions they get from afar, it might increase the generalized trust of students in the neighborhood, and create important bridging social capital.

Future research could expand on this study in a number of ways. Replicating this study in different neighborhoods, especially those with a more heterophilous demographic, would add to the generalizability of this study. Comparing personal networks with virtual networks could also be interesting in determining Nextdoor's success at expanding people's networks. Furthermore, many of the frameworks and theories I heavily drew on in this paper including Oldenburg (1999) and Putnam (2000) based their research on North American and European trends; future studies could add to the literature by examining the role of social capital and third places in other cultures and contexts.

## Implications

The implications of Nextdoor being a successful virtual third place could be very important in a society that continues to focus solely on work and home spheres, which limits exposure to

differing viewpoints. It could be a forum directed at the precise group of people who will need to be connected in the event of a disaster, which would vastly improve that neighborhood's resilience. If people are able to work together and organize efficiently after a disaster, it improves recovery time and frees up emergency responders to focus their efforts on more vulnerable parts of the city. Additionally, if well-networked, trusted neighbors on Nextdoor can collaborate with emergency managers on the city or country scale, that could potentially be a very effective pathway to disseminate information. Perhaps even before the earthquake hits, the generalized trust that is being built on Nextdoor will encourage people to pay attention to preparedness warnings posted by neighbors, and take individualized steps to prepare, such as making a kit or retrofitting their house.

Cities are beginning to adopt community resilience into their emergency preparedness plans. Wellington, New Zealand's Emergency Management Office released a Community Resilience Strategy, with a section that highlights the importance of bonding, bridging, and linking social capital and social networks in fostering resilience (2012). The Australian Red Cross released a National Disaster Resilience Roundtable report that focuses on the application of social capital to disaster resilience (2012). It discusses trust, reciprocity, and the ability to share information quickly with existing social networks. It stresses the importance of social capital in mobilizing people and resources immediately after a disaster as well as the long-term importance of social capital in the long term recovery. The City and County of San Francisco published a "Resilient San Francisco" plan that included a chapter on neighborhood connectivity. They discussed utilizing libraries as hubs for meetings and interactions, and although they didn't mention social capital or third places by name, they alluded to their functions.

This increased focus on social capital also requires emergency managers to have a plan for coordinating and utilizing public contributions (LaLone 2012). Multiple studies have highlighted the importance of the role of local organizations in coordinating social capital (volunteers, resources, etc.) with the needs of emergency responders to streamline the response (Ozanne and Ozanne 2013, Eller et al. 2015). Cities are beginning to incorporate citizens into the emergency management process by training volunteers in Community Emergency Response Teams (CERT), also known as Neighborhood Emergency Teams (NET) in Portland. For the NETs, there are four goals for members, which are to be prepared themselves, provide emergency assistance to neighbors and family, work within an emergency response team, and organize untrained volunteers who want to help (Portland Bureau of Emergency Management 2017). To take this one step further, being aware of and connected to those untrained volunteers before a disaster happens could be extremely useful,

and could give NETs the ability to anticipate the strengths and weaknesses in their neighborhood. For example, if they know there are doctors, skilled construction workers, or experienced campers/survival experts in the neighborhood, it would be faster and easier to get them involved.

Scholars have pointed to the use of neighborhood social media as enhancing connections between individual neighbors and their communities (Baym 2015). Mesch & Levanon (2003) found that geographically-based community networking increased the social involvement and participation in the extended community, and complemented traditional forms of communication. In a longitudinal study on locally based electronic forums, Mesch & Talmud (2010) found that participation in a community electronic network amplified civic participation and fostered an elevated sense of community attachment. Ultimately, it is the way people utilize virtual technology that has an impact on community involvement, and often when a geographic component is added, civic participation and face to face interactions increase.

## Conclusion

With the increase of natural disasters due to climate change, and the ever present risk of technological or social disasters, it's more important than ever to establish networks within local communities. The rise of virtual third places could help streamline this process by providing larger groups of people access to spaces in which they can connect with their neighbors, which can help build safer communities in the short-term, and more resilient communities in the long-term.

## Works Cited

- Afzalan, Nader, and Jennifer Evans-Cowley. 2015. "Planning and Social Media: Facebook for Planning at the Neighbourhood Scale." *Planning Practice & Research* 30 (3): 270–85.  
doi:10.1080/02697459.2015.1052943.
- Aldrich, Daniel P. 2012. *Building Resilience : Social Capital in Post-disaster Recovery*. Chicago: University of Chicago Press.
- Aldrich, Daniel P., and Michelle A. Meyer. 2015. "Social Capital and Community Resilience." *American Behavioral Scientist* 59 (2): 254–269.
- Australian Red Cross. 2012. "Relationships matter: the application of social capital to disaster resilience."
- Baym, Nancy K. *Personal Connections in the Digital Age*. Revised and Updated Second ed. Digital Media and Society Series. Malden, MA: Polity Press, 2015.
- Bouchillon, B. C. 2014. "Social Ties and Generalized Trust, Online and in Person: Contact or Conflict--The Mediating Role of Bonding Social Capital in America." *Social Science Computer Review* 32 (4): 506–23. doi:10.1177/0894439313513076.
- City and County of San Francisco. N.d. "Resilient San Francisco."
- Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94: S95–S120.
- Dynes, Russell. 2006. "Social Capital: Dealing with Community Emergencies." *Homeland Security Affairs* 2 (2).
- Eller, Warren, Brian J. Gerber, and Lauren E. Branch. 2015. "Voluntary Nonprofit Organizations and Disaster Management: Identifying the Nature of Inter-Sector Coordination and Collaboration in Disaster Service Assistance Provision." *Risk, Hazards & Crisis in Public Policy* 6 (2): 223–238.
- Glanville, J. L., M. A. Andersson, and P. Paxton. 2013. "Do Social Connections Create Trust? An Examination Using New Longitudinal Data." *Social Forces* 92 (2): 545–62. doi:10.1093/sf/sot079.
- Gragg, Randy. 2014. "The Big One: A Survival Guide." *Portland Monthly*, July 1.
- Hayward, Bronwyn Mary. 2013. "Rethinking Resilience: Reflections on the Earthquakes in Christchurch, New Zealand, 2010 and 2011." *Ecology and Society* 18 (4). doi:10.5751/ES-05947-180437.
- Hawkins, R. L., and K. Maurer. 2010. "Bonding, Bridging and Linking: How Social Capital Operated in New Orleans Following Hurricane Katrina." *British Journal of Social Work* 40 (6): 1777–93.  
doi:10.1093/bjsw/bcp087.
- Haynes, Katharine, Jenni Barclay, and Nick Pidgeon. 2008. "The Issue of Trust and Its Influence on Risk Communication during a Volcanic Crisis." *Bulletin of Volcanology* 70 (5): 605–21.  
doi:10.1007/s00445-007-0156-z.
- Internet World Stats. "Internet World Penetration Rates by Geographic Region - March 25, 2017." [internetworldstats.com/stats.htm](http://internetworldstats.com/stats.htm). Accessed April 18, 2017.
- Kasper-Fuehrera, Eva C., and Neal M. Ashkanasy. 2001. "Communicating Trustworthiness and Building Trust in Interorganizational Virtual Organizations." *Journal of Management* 27 (3): 235–254.
- Kendra, J., Wachtendorf, D., and Quarantelli, E. 2003. "The Evacuation of Lower Manhattan by Water Transport on September 11: An Unplanned 'Success.'" *Joint Commission on Quality and Safety* 29(6): 316-318.

- LaLone, M. B. 2012. "Neighbors Helping Neighbors: An Examination of the Social Capital Mobilization Process for Community Resilience to Environmental Disasters." *Journal of Applied Social Science* 6(2): 209–37. doi:10.1177/1936724412458483.
- Lindell, Michael K., and Ronald W. Perry. 2012. "The Protective Action Decision Model: Theoretical Modifications and Additional Evidence." *Risk Analysis* 32(4): 616–32.
- Matthews, Peter. 2016. "Social Media, Community Development and Social Capital." *Community Development Journal* 51 (3): 419–35. doi:10.1093/cdj/bsv040.
- Mesch, Gustavo S., and Yael Levanon. 2003. "Community Networking and Locally-Based Social Ties in Two Suburban Localities." *City & Community* 2(4): 335–51.
- Mesch, Gustavo S, and Ilan Talmud. 2010. "Internet Connectivity, Community Participation, and Place Attachment: A Longitudinal Study." *American Behavioral Scientist* 53(8): 1095–110.
- Oldenburg, R. 1999. *The Great Good Place: Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts, and How They Get You Through The Day*. New York: Marlowe & Company.
- The Oregon Resilience Plan, Reducing Risk and Improving Recovery. 2013. Report to the 77th Legislative Assembly, Oregon Seismic Safety Policy Advisory Commission (OSSPAC).
- Ozanne, J. L., and L. K. Ozanne. 2013. "Developing Local Partners in Emergency Planning and Management: Lyttleton Time Bank as a Builder and Mobiliser of Resources during the Canterbury Earthquakes." <http://ir.canterbury.ac.nz/handle/10092/8208>.
- Portes, Alejandro. 1998. "Social Capital: Its Origins and Applications in Modern Sociology." *Annual Review of Sociology* 24 (1): 1–24.
- Portland Bureau of Emergency Management. 2017. "NETs." <https://www.portlandoregon.gov/pbem/31667> Accessed May 1, 2017.
- Putnam, R. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY: Simon & Schuster.
- Reininger, Belinda M., Mohammad H. Rahbar, MinJae Lee, Zhongxue Chen, Sartaj R. Alam, Jennifer Pope, and Barbara Adams. 2013. "Social Capital and Disaster Preparedness among Low Income Mexican Americans in a Disaster Prone Area." *Social Science & Medicine* 83 (April): 50–60. doi:10.1016/j.socscimed.2013.01.037.
- Rodriguez, H. 2006. "Rising to the Challenges of a Catastrophe: The Emergent and Prosocial Behavior Following Hurricane Katrina." *The ANNALS of the American Academy of Political and Social Science* 604 (1): 82–101. doi:10.1177/0002716205284677.
- Solnit, Rebecca. 2009. *A Paradise Built in Hell: The Extraordinary Communities That Arise in Disaster*.
- Soukup, Charles. 2006. "Computer-Mediated Communication as a Virtual Third Place: Building Oldenburg's Great Good Places on the World Wide Web." *New Media & Society* 8 (3): 421–440.
- Steinkuehler, Constance A., and Dmitri Williams. 2006. "Where Everybody Knows Your (Screen) Name: Online Games as 'Third Places.'" *Journal of Computer-Mediated Communication* 11 (4): 885–909. doi:10.1111/j.1083-6101.2006.00300.x.
- Szreter, S., and Woolcock, M. 2004. "Health by Association? Social Capital, Social Theory, and the Political Economy of Public Health." *International Journal of Epidemiology* 33 (4): 650–67. doi:10.1093/ije/dyh013.
- Thompson, Kirrilly, Danielle Every, Sophia Rainbird, Victoria Cornell, Bradley Smith, and Joshua Trigg. 2014. "No Pet or Their Person Left Behind: Increasing the Disaster Resilience of Vulnerable Groups

through Animal Attachment, Activities and Networks." *Animals* 4 (2): 214–40.  
doi:10.3390/ani4020214.

Wachtendorf, Tricia. 2004. *Improvising 9/11: Organizational improvisation following the World Trade Center disaster*. Ph.D. diss., Department of Sociology, University of Delaware, DE.

Wellington Region Emergency Management Office. 2012. "Community Resilience Strategy."

Wisner, Ben, Jc Gaillard, and Ilan Kelman. 2014. "Framing Disaster." In *Handbook of Hazards and Disaster Risk Reduction*. Routledge. doi:10.4324/9780203844236.ch3.

Yamagishi, Toshio, and Midori Yamagishi. 1994. "Trust and Commitment in the United States and Japan." *Motivation and Emotion* 18(2):129–16.

## Appendix A: Survey

### Nextdoor Collins View Survey

I am an Environmental Studies senior at Lewis & Clark, and your responses will be recorded for my thesis project. If you have any questions or concerns, you may email me at [karascherer@lclark.edu](mailto:karascherer@lclark.edu). Thank you for your time, and I'll see you around the neighborhood!

#### 1. What do you use Nextdoor for?

*Check all that apply.*

- Classifieds
- Crime & Safety
- Documents/Neighborhood information
- Free Items
- General
- Lost & Found
- Recommendations
- Services
- Information from local organizations
- Other: \_\_\_\_\_

#### 2. How many of your neighbors have you met in person because of Nextdoor?

*Mark only one oval.*

- 0
- 1-3
- 3-6
- 6-10
- More than 10

#### 3. Which of the following would you be comfortable doing with a neighbor you met on Nextdoor?

*Check all that apply.*

- Borrow an item
- Provide a needed service (rake leaves, fix something)
- Meet for a social activity (i.e. a class, hike)
- Provide/Receive Childcare
- Feed a pet or water plants while away
- Enjoy a meal together
- House-sit while away
- Give them a key to your house in case of an emergency

**4. Which of the following do you associate with Nextdoor?**

*Check all that apply.*

- It's a neutral platform for me to share information on my own terms
- I am accepted regardless of my rank or status elsewhere
- Useful conversations/posts
- Easily accessible
- Helps me get to know my neighbors
- Informal way to stay active
- Enjoyable culture of interaction
- Makes me feel like part of a community

**5. Which of the following do you associate with Nextdoor?**

*Check all that apply.*

- People post too much
- Irrelevant posts
- Offensive posts
- People "attacking" others' posts
- Inaccurate information
- Not enough community participation
- People are exclusive of certain groups

**6. Who do you see as active members on Nextdoor?**

*Check all that apply.*

- Neighborhood organizations
- City-wide organizations
- Teenagers
- College students
- Neighborhood newcomers
- Long-term neighbors
- Other: \_\_\_\_\_

**7. Which of the following groups have you ever been bothered by in Collins View?**

*Check all that apply.*

- Teens
- College students
- Visitors/People passing through
- Strangers
- Pet owners
- Other: \_\_\_\_\_



**8. How often do you look at Nextdoor?**

*Mark only one oval.*

- Every day
- A few times a week
- Once a week
- Once a month
- A few times a year
- Barely ever

**9. Would you recommend Nextdoor to a friend?**

*Mark only one oval.*

- Yes
- No

**10. Is there anything you would like to add about your experiences with Nextdoor Collins View?**

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**Demographic Information**

Almost done!

**11. How long have you lived in Collins View?**

*Mark only one oval.*

- 0-3 years
- 4-7 years
- 8-11 years
- 11-15 years
- Over 15 years

**12. What is your living situation?**

*Mark only one oval.*

- Rent, single family home with children
- Rent, single family home without children
- Rent, with roommates
- Own, single family home with children
- Own, single family home without children
- Own, with roommates
- Other: \_\_\_\_\_

**13. Age***Mark only one oval.*

- 13-18  
 18-22  
 22-40  
 40-65  
 65+

**14. Gender***Mark only one oval.*

- Male  
 Female  
 Non-binary  
 Prefer not to say  
 Other: \_\_\_\_\_

**15. How many people live in your household?***Mark only one oval.*

- 1-2  
 3-5  
 6+

**16. What is the highest level of education you have completed?***Mark only one oval.*

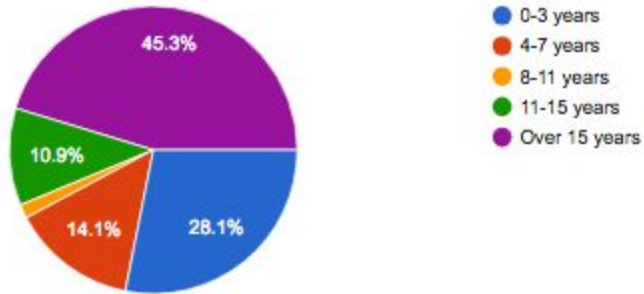
- Some high school  
 High school graduate  
 Some college  
 Vocational/Trade training  
 College graduate  
 Post graduate degree

**17. Race/Ethnicity (check all that apply)***Check all that apply.*

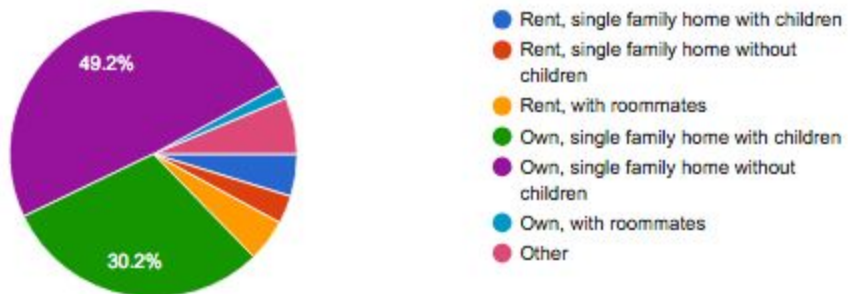
- Asian  
 Black or African American  
 Hispanic/Latinx  
 Native American or Alaska Native  
 Native Hawaiian or Pacific Islander  
 White  
 Other: \_\_\_\_\_

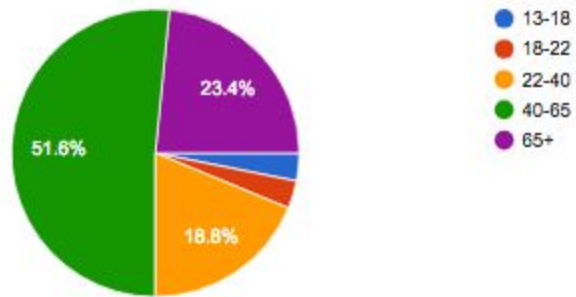
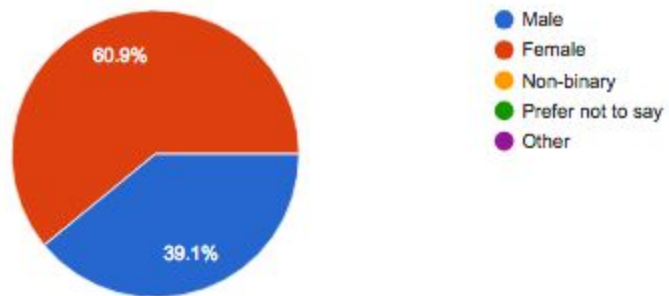
## Appendix B: Demographic Information from Survey

How long have you lived in Collins View? (64 responses)

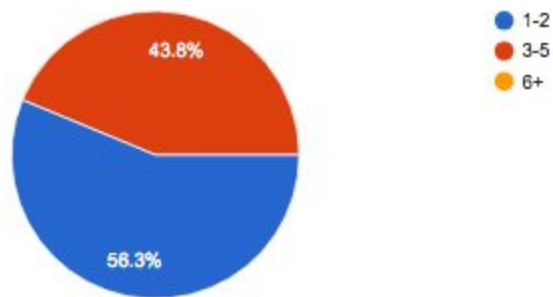


What is your living situation? (63 responses)

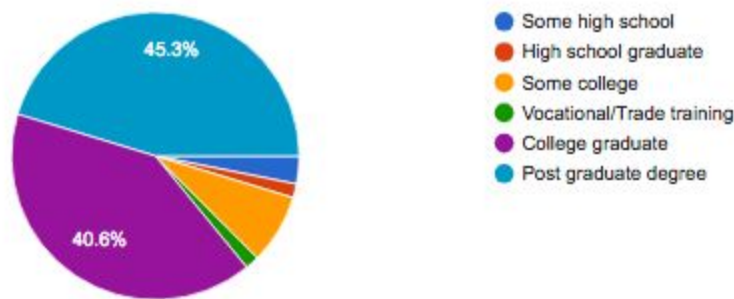


**Age** (64 responses)**Gender** (64 responses)

How many people live in your household? (64 responses)



What is the highest level of education you have completed? (64 responses)



Race/Ethnicity (check all that apply) (63 responses)

