# Twitter

# CS4803: Design of Online Communities

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Twitter is an online social networking and micro-blogging service that facilitates real-time communication between users. The purpose of Twitter updates, also known as "tweets", is to answer the question "what are you doing now?" Users can access Twitter through the website, instant messaging services, mobile devices and third-party applications. Twitter's unique constraints and affordances allow its users to interact with the community in a versatile manner.

**Background**

Twitter started out in March 2006 from an idea credited to Jack Dorsey in the wake of Dodgeball, a location-based mobile service aimed at helping friends organize impromptu real-life meetups. Twitter launched as "twttr" under the company Odeo and picked up where Dodgeball left off. Rather than revolving entirely around its users' locations, Twitter initially focused on social groups over SMS text messages. Twitter Co-founder Biz Stone described it as a service that "helps groups of friends bounce random thoughts around with SMS" while the product manager of Google Blogger, Jason Goldman, called it "present tense blogging" (Stone 2006). Two years later Twitter is now its own incorporated entity and is a more realized product. Twitter gained popularity among the web-savvy early adopter crowd and this has impacted the composition of its current audience. Twitter has yet to infiltrate the mainstream populace (Chang 2008).

While Twitter began with a focus on its mobile service and launched with an SMS shortcode, it now has a capable web interface. Taking from its humble SMS-based beginnings, Twitter updates are limited to 140 characters. The idea behind Twitter has not changed much since its launch. What began as a service used by groups of friends to bounce ideas off one another has evolved into a community of people following what

others are doing, literally. However, Twitter users have found a variety of ways to use Twitter rather than being strictly limited to the intended purpose.

**Research Methods**

When researching Twitter we began by creating accounts on the site and customizing them such that other Twitter users would easily be able to know who we were. We used our real names, pictures of ourselves for avatars and stated that we were Georgia Tech students in the bio section of our profiles. In that sense, we were much like other Twitter users, the majority of which chose to use their real identity rather than stick with a pseudonym. It is hard to state exactly how much each of us have used the site since typical Twitter sessions last a few minutes and are generally comprised of reading the tweets of people we follow and either interacting with those tweets or posting an unrelated tweet. However, these short sessions would occur many times throughout the day for at least a month.

We started out by following each other on Twitter and then adding local Twitter users based on searches for Atlanta, Georgia as well as Georgia Tech. Over time, the list of people we followed expanded as we began following Twitter users that our followers interacted with regularly. From there, we individually followed people of interest - not necessarily local Twitter users, but people with similar interests or amusing updates. Some of these were found through visiting users' profile pages, seeing who they followed and finding interesting users from there. An example of one of these Twitter users was a kind of Twitter celebrity from his popular wine video blog. He leverages Twitter to stay in touch with his fans and promote his recent work as well as encourage interaction by simply asking his followers to talk to him. We also found Twitter users through Facebook

friends with the Twitter application installed or their Twitter profile listed under the websites section of their Facebook profile. Last but not least, we found Twitter users from blogs where the blogger had published their Twitter username or through friends in real life that used Twitter.

To help us understand how people use Twitter we interviewed 11 active Twitter users over the phone. Finding people to interview was fairly easy and Twitter users often use their real identity so they do not mind talking in person. Some of the people we interviewed were Georgia Tech students we found through Twitter's search feature. Others were found by asking our followers for an interview through a tweet. However, the bulk of our interviewees were found through snowballing; asking interviewees if they could recommend people to interview. The following are the Twitter users we interviewed:

- *Michael Turner* is the Director of Quality Assurance at an Atlanta-based software company. He has protected updates and often uses Twitter to vent about frustrations at work.

- *Bill Johnson* is a third-year college student utilizing Twitter to communicate with online friends and keep them up-to-date about with what he's doing.

- *Heather Griggs* is a fifth-year college student whose main use of Twitter is keeping in touch with friends in real life.

- *Jeff Edmonds* is a fourth-year college student who uses Twitter to enjoy the gossip of popular bloggers and people within the technology industry.

- *Rachel Keslensky* is a fourth-year college student who initially used Twitter to promote her talents but now uses it as a collaborative tool.

- *Michael Harris* is a college student who mostly rants about all the work he has to do and keep tabs on his real life friends.

- *Jenna Griffin* is a third-year college student who uses Twitter to make professional, portfolio-padding posts for her website.

- *Chris Morrell* is a fourth-year college student who uses Twitter to keep up with close friends and post about the stuff he does.

- *Josh Rosenkoff* is a fourth-year college student who uses Twitter to keep in touch with friends and record his feelings throughout the day.

- *Eric McDonough* is a fourth-year college student who uses Twitter to promote his blog and hear about news in the technology field.

- *Emily Reize* is a graduate student majoring in Public Policy. She uses Twitter to keep in contact with friends and post funny quotes throughout the day.

**Constraints**

     The constraints and affordances of Twitter add to its uniqueness and versatility. The term affordance was originally coined by American psychologist James J. Gibson in his 1977 article, *The Theory of Affordances.* Gibson used this term to refer to "the actionable properties between the world and an actor (a person or animal)" (Norman 2004). Over a decade later in 1988, Don Norman adopted the term in reference to subjects such as Human-Computer Interaction (HCI). His definition of perceived affordances referred to actions that are readily perceived by a user. According to Norman, constraints are the physical and logical limitations of a user or actor in an environment. It was important for us analyze the affordances and constraints of Twitter in order to get

an understanding of the site as a whole and allow us to grasp how users interact with the service. The most notable Twitter constraint deals with tweets themselves. Tweets are limited to 140 characters and arise from the need for a concise and quick format. However, many users like Heather Griggs consider this constraint to be a good thing: "The point is you get quick updates. There are never more than two or three lines on my screen, so I can look at 10 or 20 updates at once. That's the novelty of it, that it's quick and easy." The limited amount of characters forces users to be more concise with their tweets. This limitation has also caused many users to use shorthand to fit their update into one tweet. One of our Twitter followers replied to a tweet that one of us had posted, which included a link to a blog post. That follower was able to say "I read your excellent post" by starting a tweet with "I rd yr xclnt post", thus leaving room for the rest of the tweet. Some Twitter users attempt to ignore the constraint by simply posting multiple tweets one after another.  However, Bill Johnson considers that "definitely annoying" and insists that "short and sweet makes it easier."  Regardless of how Twitter users choose to deal with the constraints, they will no doubt find a way to do what they want. John Suler supports this sentiment when stating the following: "When immersed in a medium that places some restrictions on paths to communicate, humans get downright clever and creative in overcoming the barriers" (Suler 1997).

Not all Twitter users find the 140 character limit as easy to get around.   Emily believes that the character limit should be increased to 160 or 180 to allow her to finish her thoughts on days when she has more to say.  She does, however, admit that the character limit has both advantages and disadvantages.  Her position is that she does not want to "be reading paragraphs from other people."

**Affordances**

While Twitter's 140 character update constraint is the subject of much fanfare, many of Twitter's affordances slip under the radar. Users may customize their profile page in various ways including changing the background color or image and altering the colors of their tweet text, name text, sidebar and links. Twitter users may also upload their own avatar image, which is displayed at the top of the sidebar on their profile page and adjacent to each tweet they post.

Similar to the limited space for tweets, Twitter profile pages give users fewer than 160 characters to fill with bio information. While this can be considered a constraint as well, providing users with the ability to inform other users of who they are aligns more readily as an affordance facilitating identity creation and maintenance. Going along with the bio information, users may state their location and post a link. Users concerned with privacy or just interested in shielding their tweets from the public may opt to protect their updates, making them visible to friends only.

The most notable affordance of Twitter deals with the speed of Twitter. It is real-time. Twitter can be described as a micro-blogging platform. Unlike blogging, which generally takes more time and is done at a computer, Twitter updates can be posted from a flurry of mobile devices in a matter of seconds. The expansive accessibility improvements of Twitter over blogging add to the ubiquity of Twitter usage. Blogging about time-sensitive information does not usually go over well. People have to check the blog manually or wait for the RSS feed and their feed aggregator to update. Depending on settings, Twitter can be more intrusive than blogging and actually text message its users with updates from their friends. This speed and accessibility has afforded Twitter

users the ability to find new and interesting ways to use the service within the aforementioned constraints.

These affordances are fortified by Twitter's archives, allowing users to see all of their past updates as well as those of any public user. There is no limit to the number of updates a user may post overall and there are no limits restricting a user from only posting a certain number of tweets per day or hour. In addition, there are no filters placed on the type of content users may tweet. Vulgar and explicit language is not censored. However, while language is not censored there are some rules put in place by the code of conduct discussed later. Twitter users may keep track of important, interesting or just plain quirky tweets of theirs or others by adding it to their Twitter favorites. With the speed at which Twitter updates arrive, it is a surprisingly underused Twitter feature but is nonetheless an affordance.

There are certain features in place which help users communicate amongst each other. The first is the direct message, which as the name implies allow users to privately message each other. Direct messages are also subject to the 140 character limit constraint. Direct messages may be done two ways: prefacing a tweet with "d" and the Twitter username of the intended recipient or by clicking the message link on the intended recipient's profile page. However, direct messages may only be sent to Twitter users following the sender - likely a built-in privacy and anti-spam measure. The public equivalent to the direct message is the so-called "at" reply. Users preface a tweet with the @ symbol and the username of the person they want to reply to with a public tweet. Other users see those tweets and can click on a link displaying the original tweet. Users have the ability to block other users as a final method of protection. Most users' profiles

and tweets are public, so it does not stop unwanted viewers, but it will ensure that the offenders will not be able to reply to or otherwise impact the user.

**Community Analysis – Nine Principles**

When we first starting researching Twitter, we began by analyzing the site based on Amy Jo Kim's "Nine Timeless Design Principles for Community-Building" (2000). Her template is designed to address nine distinct elements within a community. The template addresses the following issues:

1. Does the community have a clear purpose?

2. Does the community have distinct, extensible gathering places?

3. Does the community have profiles that evolve over time?

4. Does the community promote effective leadership?

5. Does the community have a clear-yet-flexible code of conduct?

6. Does the community organize and promote cyclic events?

7. Does the community provide a range of roles with increasing involvement (i.e. visitor, new member, regular, leader, owner)?

8. Does the community support member-created sub-groups?

9. Does the community integrate what's online with the real world?

**Purpose**

*Mission:* The main purpose of Twitter is for users to share the current events in their life with others. This is done by the designers asking the simple question, "what are you doing?" While this is the main purpose of Twitter, many users have adopted their own use for the community. Many have utilized Twitter as a way to keep up with current

news and trends.  Many news sites, such as the Cable News Network (CNN) and the

British Broadcasting Corporation (BBC) have Twitter profiles.  Twitter members that

utilize this feature use it as an alternative to Really Simple Syndication (RSS) feeds. This

is useful because it allows users to receive updates on news events without having to

access the site directly or alter their current task of reading Twitter updates.  Also, users

who follow these news sites while also using Twitter's SMS feature via their mobile

phone are able to receive these news updates through text messages.

Twitter is also used as a way for members to enhance their blogs.  A member can

have a link to their personal website or blog on their profile page.  Many users have

chosen to link their blog in this space. Bloggers have used Twitter as a way to inform

followers of new articles they have published by linking to them in tweets.  In addition,

many bloggers also use Twitter posts to ask for comments on their articles or ask for

advice on new blog topics.  Bloggers use Twitter as a tool to enhance the popularity and

reach of their blogs.

Ultimately, the underlying purpose of Twitter is to facilitate online

communication.  No matter what way users choose to take advantage of the service,

Twitter still fulfills its goal of facilitating communication.

*Audience:* The range of Twitter users is very diverse; spanning from prominent

social figures such as political candidates and actors to housewives and students. While

Twitter is slowly creeping into mainstream usage, it was initially developed and

publicized by savvy tech people and thus the initial Twitter user-base was filled with

similarly-minded early adopters and web-savvy people. They have different reasons for

using Twitter. Some simply wish to keep up with what their friends are doing while

others have a more structured agenda and use Twitter as a marketing tool. At first glance there are no sub-groups as Twitter does not tote any features aiding the creation of those groups. However, as described later, the community has found ways to take part in their own sub-groups.

*Visual Design:* While the design of Twitter has altered slightly since its debut in 2006, the creators have not deviated far from the site's origins.  Once user becomes a registered member of a twitter, the homepage becomes the user's personal Twitter page. The top navigation bar displays the search bar and links to the homepage, "Find & Follow" (a way to invite other people to twitter or find friends), Settings, Help, and a Sign Out link. The main content lies in the center of the page.  There, recent tweets from people that the user is following are shown in reverse-chronological order.  On the right navigation bar, statistical information about the user is displayed.  The information on this navigation bar includes the following: the user's profile, most recent tweet, device updates, user statistics (i.e. number of followers, number of updates, etc.), and the people that the user is following.

*Backstory:* While there is a unique anecdote leading to the creation of Twitter, it is nothing fundamentally important for users to know about and is thus not communicated through the service.  Technology writer Om Malik reported that the idea for Twitter first came up in a conversation between Jack Dorsey and Noah Glass after a night of drinking in San Francisco. Around the time, Dorsey had been intrigued by scheduling software and had even written an application for bike messengers. From that conversation evolved the idea of a web application based around status. (Malik 2006 and Glass 2006)

**Gathering Places**

Twitter does not have any explicit gathering places. There are no groups or forums for people interested in a certain topic or activity to meet. This all falls within the simple structure and mission of Twitter. It is built around one thing; people sharing what they are doing with their friends. However, users have created their own sort of system to advance the communication system. When Twitter started out, users began pointing tweets at other users by prefacing their tweet with the @ symbol and the username of the recipient. This communication method goes back to blogging and forums where people would reply to comments and posts in a similar fashion. Twitter staff quickly noticed that the community was making use of @-replies and officially supported it shortly thereafter. Now any username with an @ symbol in front of it is linked to the user's profile page and replies to users are shown on the user's replies page so they are not easily overlooked.

While Twitter does not have any gathering places for its users, it is in itself a gathering place. Ray Oldenburg's concept of Third Places readily applies to Twitter. Anyone can become a Twitter user for free and engage in self-selection by following people with similar interests. Users visit Twitter several times daily to check what their friends are doing and share their own activities. The main activity on Twitter is conversing and socializing with others, a key element of the Third Place. In addition, Twitter users are available around the clock. Rachel Keslensky discussed her use of Twitter when she went on a road trip, "I was just posting messages every half hour or so of where we were and what we were seeing or when we stopped into Quick Trip to get a bite to eat." The atmosphere on Twitter is playful and engaging rather than drab and dull

as may be the case at work or home. People often use Twitter to get away or vent about their current situations. For example, Michael Turner usually goes to Twitter to vent about work or daily frustrations. Since Twitter can be accessed from any computer or mobile device with an Internet connection, it is easy for users to check regularly. This draws another parallel to Oldenburg's Third Place in regards to having a third place nearby that may be visited with some frequency.

**Membership and Profiles**

*Barriers to Entry:* Even though Twitter is a remarkably simple service, it has proven difficult to explain to others. The Twitter homepage gets the basic point across and discusses how Twitter is a service with people frequently answering one question, "what are you doing?" However, that does not accurately sum up Twitter as its users have come up with interesting new uses. Regardless, Twitter's homepage does communicate that the service provided is a free communications tool for friends. There are no requirements to membership other than answering that one question at the user's will.

While an account is necessary to post updates and interact with other users, many users have public updates, making it possible for non-members to get a feel for the environment. Heather Griggs said that some of her sorority sisters follow her on Twitter, even though they don't have an account. Registration is a trivial event as far as creating a web account goes; only a username and email address is requested.

*Representation:* After logging in, users may provide additional information to be displayed on their profile: full name, website address, a one line bio and location. In addition to profile content, users may indulge in profile appearance customization as discussed earlier, as well as uploading an avatar image and setting how they prefer to be

13

contacted when new messages arrive. There is one noteworthy setting for Twitter accounts regarding notification settings. An "auto nudge" feature can be applied to remind users to update their Twitter status at least every 24 hours. However, most people do not tend to use the auto nudge feature, which is not enabled by default, as they check Twitter often enough when keeping up with the people they follow. For example, Chris Morrell checks and posts about ten tweets per day on Twitter and Heather Griggs updates 8-9 times on some days. Another way users can be reminded and encouraged to update their profile comes from nudges sent by other users. Since Twitter centers around users' tweets and the conversation that emerges among users, it is important that users frequently interact with the service and post new tweets. Other than the nudge feature, there is a form of encouragement to use the service built into the community: the users themselves. Twitter users have a need to keep using the service and interact with the community so they do not miss out with the happenings of their friends, news, events organized over Twitter and so on.

*History*: One of the key design principles behind Twitter ties into Peter Kollock's "Design Principles for Online Communities" (1996). Kollock discusses prisoner's dilemma and the three necessary conditions for the possibility of cooperation. The last of those three is that individual must have information on how the other person has behaved in the past. In the case of Twitter, users must be able to get a feel for the person and their personality by viewing their past tweets. Heather Griggs had posted that she was looking for a job in her profile bio and had linked to her resume in her Twitter profile. "Yeah, I had two different people, both from like small web design firms in Atlanta find me and they were like oh she's a college student and they already had a pretty good feel for my

personality just by reading my tweets so they wanted to move straight to an interview," Griggs explained.

Twitter displays each users' past tweets on archives pages.  The archival system is clear and easy to read; it provides the exact date for each tweet as well as information about whether the tweet was a reply to another tweet.  "It's like you get a glimpse of someone's personal life," states Jeff Edmonds. Users also find tweet archives useful when analyzing another user's reputation and determining whether they want to follow that person on Twitter.

**Leadership**

Leadership is a transparent element within this community. Due to the simplistic nature of the site there are not really any perks that a leader could hold. There is not a traditional need for a moderator because each user posts within their own space. There is nothing to defile, but their own dwelling. Users choose who they follow, so there is not any kind of preferred distribution that leader could acquire. Leadership is unofficial and it comes in the form of followers. These leaders don't have any real power, just the comfort of being listened and the ability to reach a larger audience. Leadership comes in the form of credibility, not authority.

Going back to the simplistic nature of Twitter, there is no hosting manual or any set of formal rules on how to use the service. A great example of this comes from the aforementioned story behind how @ replies became supported by Twitter. Twitter is a community guided by the community itself. The site's design directs how it should be used, there are no restrictions.  These lack of restrictions are part of the reason why Twitter can so readily be used for a variety of actions.  In Amy Bruckman's article

"Finding One's Own Space in Cyberspace," the author discusses a designers role in the ending purpose of a community. Bruckman states that "A founder/designer can't control what the community ultimately becomes--much of that is up to the users--but can help shape it. The personality of the community's founder can have a great influence on what sort of place it becomes" (Bruckman 2006).

If new users need tech support help, the best solution is to ask their followers in a tweet. Although there is a help section on the Twitter website, we noticed that new users are more comfortable learning how to use Twitter by exploring on their own and learning from the tweets of the people they follow. Michael Harris mentioned how he remembers Twitter having a short tutorial that's pretty simple. "And as far as navigating the site, I think it's pretty easy to catch on. I mean, it is all right there in front of you. It does makes sense."

In many communities, it is often the case that the creators of the community set an example with their actions and how they use the community. Unlike new MySpace or WordPress accounts, new Twitter accounts do not automatically link to or follow the creators. New users typically get a sense for the community by following friends they already have on the service. Oldenburg expands on the concept of Third Places by listing the order of acceptance for users of any Third Place, which Twitter can definitely be considered. At the bottom of that list is the lone new comer, then a pair of loan new comers, a regular user with a guest, a regular, and finally a prodigal regular. How does this fall into the leadership principle? Since users rely on other users for a number of purposes, including learning the ropes and tech support, they usually do not start on their own. New users are often lured to Twitter by friends already using the service. From

interacting with that friend on Twitter, be it through @ replying back and forth or something else, the new user becomes accustomed and welcomed to the service more readily than the lone new comer.

**Code of Conduct**

Under their terms of service agreement, Twitter has 10 basic rules that members must follow.  They are the following:

1.  You must be 13 years or older to use this site.

2.  You are responsible for any activity that occurs under your screen name.

3.  You are responsible for keeping your password secure.

4.  You must not abuse, harass, threaten, impersonate or intimidate other Twitter users.

5.  You may not use the Twitter.com service for any illegal or unauthorized purpose. International users agree to comply with all local laws regarding online conduct and acceptable content.

6.  You are solely responsible for your conduct and any data, text, information, screen names, graphics, photos, profiles, audio and video clips, links ("Content") that you submit, post, and display on the Twitter.com service.

7.  You must not modify, adapt or hack Twitter.com or modify another website so as to falsely imply that it is associated with Twitter.com.

8.  You must not create or submit unwanted email to any Twitter members ("Spam").

9.  You must not transmit any worms or viruses or any code of a destructive nature.

10. You must not, in the use of Twitter, violate any laws in your jurisdiction (including but not limited to copyright laws).

The developers also have oversight over the content posted on the site.  While typically Twitter does not censor profane language, the Terms of Service states that the developers have the right to remove specific content from a members profile or tweet at their discretion.  The designers state that they would remove information that they felt was "unlawful, offensive, threatening, libelous, defamatory, obscene or otherwise objectionable or violates any party's intellectual property of these Terms of Use."

**Cyclic Events**

Twitter developers created a blog they use to inform users about new Twitter features, showcase third-party Twitter services and applications as well as highlight interesting uses of Twitter. However, the blog is linked to at the bottom of the page, so it is very likely that only a small percentage of Twitter users read the blog. There is a formal newsletter sent to Twitter users by default upon registration. It is not a frequent newsletter and is only sent to announce large new features and point users to current partnerships and promotions. Twitter is known to have occasional sponsored events with the community. When MTV had the Video Music Awards, they promoted it on Twitter with an account shared by celebrities (McCarthy 2007).  The same type of sponsored event went for the show Greek on ABC Family, which encouraged actors to use Twitter to hold a Q&A session during the time the show aired (Kang 2007).  Otherwise, there are not any regularly scheduled events that occur on Twitter.

**Roles**

Twitter supports a variety of user roles but they are not clearly defined by the site itself.  Users define each role based on their experience with the site.  Users progress from a visitor, to a novice, to a regular, and finally a leader.  A visitor is someone without

an identity and who does not have access to look at member's pages from the homepage. In order to gain access to the bulk of the site, a visitor must sign up and create a persistent identity within the community. This restraint reveals to the user that they are only considered a visitor and in order to gain access they must become a new member by signing up to join the network of Twitterers. This restraint motivates users to move up on the social ladder.

There is a new member ritual once a visitor signs up. After providing information towards building a Twitter identity, the visitor is promoted to a novice member through a welcome email sent to the address provided during the sign up process. A novice is a new member who has a lot to learn about using and interacting with the Twitter community. They have access to other members' profiles and are allowed to customize their own profile page. They control who is allowed to follow their posts and can request to follow others' tweets. The more time spent on Twitter and the more friends they follow and are followed by provides a subtle transition from a novice to a regular member. This social role is assumed by users based on the number of posts one has in their archive, the number of replies they've made and received, the number of friends they are following, and the number of members that are following them. A regular is an established member of Twitter who feels comfortable participating within the community life. The transition between a novice and a regular differs by member. Because of this lack of structured status recognition, members appear to be regulars when in fact they are still novices. Those new members who join the Twitter community in pairs or as groups of friends will provide more activity on their pages. On the other hand, an individual

who joins Twitter on his or her own will take longer to find friends and interact with the community, which potentially makes them less credible as a regular user.

It is around the regular user role that users begin strengthening their identity through profile customization and subsequently building a reputation. The one of the elements of possibility of cooperation states that individuals must be able to identify one another (Kollock 1996). After registration and selecting a username, users instantly become identifiable amongst each other. As users progress from novices to regular users and begin customizing their profile, it becomes easier for them to recognize each other. Another element for the possibility of cooperation states that it must be likely that the individuals will meet again in the future. This element is certainly met with Twitter where users will often run into each other if they follow each other or follow people with similar interests. Their username will likely come up in conversations, @ replies and so forth.

In an online community there is generally a ritual that promotes a regular member to have a leader role. But in Twitter, the leader role is informal as with the other roles, more of an informal gatekeeper-type role played by the more popular members of Twitter. These informal leaders keep the community running through their popularity. They tend to be the ones with several thousand followers but not necessarily a long list of members they follow. As noted by Amy Bruckman in "Cyberspace is Not Disneyland: The Role of the Artist in a Networked World", having an audience motivates creation (Bruckman 1995). The Internet brings forth this audience, but more specifically it is the community involved with Twitter and the people directly following these informal leaders. Leaders have the same amount of power and access as regular members but they

have a sense of credibility and importance for whatever reason it may be. One common

reason for regular members to have a leader status is because of their real world

popularity. They may be a political figure, represent a large well-known company, or be

a popular blogger. Twitter's community depends on the progression of these roles. Users

progress through the roles as their involvement with the community increases. This

increase in involvement keeps the community running.

In "Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs",

Richard Bartle talks about the four types of users present in the typical online

community. They are the achiever, explorer, socializer and the killer. These principles

originated with the game playing communities to explain the motives and behavior of

most users. Although Twitter has a dramatically different interface and execution, these

user types are still relevant. The achiever is the user that wants to get as many people

following as possible. Posting tweets, sending direct messages and following other users

are all actions taken to remain an interesting user and network to attain new followers.

The explorer is a lurker that watches the public timeline and searches through other

peoples tweets, and the users references with posts. The socializer is an important role in

twitter, because it is the user that communicates for the sake of communicating. The

intention is to find a new way to make friends and connect with people. Bartle says of

their efforts that "Some exploration may be necessary so as to understand what everyone

else is talking about, and points-scoring could be required to gain access to neat

communicative spells available only to higher levels (as well as to obtain a certain status

in the community)" (Bartle 2006). Since Twitter is so personal and social it makes sense

that most users would lean towards this type. The final, the killer can refer to the

spammers. Annoying people on twitter rarely get anywhere because users can be blocked and placed out of sight and mind. Unwelcome influences in a user's twitter experience can easily be removed. The ineffectiveness of this approach leaves few to pursue it.

**Groups**

   While Twitter lacks the structure and features necessary to create formal groups, there are several ways that users can establish a sense of a group. First, sets of friends or users with similar interests can form informal groups by simply following one another on Twitter. The conversations and interactions that occur between those members exemplify the sub-group aspect of the larger Twitter community. This method of creating a sub-group is used by other communities trying to make a presence on Twitter. For example, a user on the small discussion-oriented website "Hacker News" started by venture capitalist Paul Graham started a thread to exchange Twitter usernames. It was also within that thread where another user suggested that Twitter support a way to manage groups (Hacker News 2008).

   Other ways of establishing sub-groups within Twitter are more involved, some including "hacks." The first of these is something called hashtags. The Twitter Fan Wiki describes hashtags as a community-driven convention to incorporate additional identifying information and metadata within tweets. Hashtags were developed to create groups within Twitter without actually requiring any changes of Twitter itself. To use hashtags, users attach the pound sign (#) to a word relevant to the tweet's content, to the beginning of their tweet. To expanding on this basic convention, users can then opt to track certain hashtags through the Twitter track feature, or by following the "hashtags" user on Twitter. The latter is a bot tied to the website hashtags.org, which aggregates the

hashtagged tweets of the people following it and then makes those conversations easy to read and discover. One of the more prominent uses of hashtags occurred during the 2007 San Diego forest fires when people began using the hashtag "#sandiegofires" to track the events. The real benefit behind hashtags is that anyone can follow such an informal group or event without having to follow every Twitter user involved.

Another community-driven convention for establishing sub-groups on Twitter can be exemplified by the Color Wars movement started by popular video blogger Ze Frank. Interested users join teams for their favorite color and participate in zany contests to eventually determine which color is best. The noteworthy aspect of Color Wars is how the teams are formed. Teams can be created by anyone willing to create a new account for the team and follow back users that follow the team. Users follow the username for the color team they want to join and then change their avatar and Twitter profile design to match that of their team. Browsing around Twitter, it is not too difficult to spot an avatar with the text "very green" underneath it, denoting that the user is part of the "veryGreenTeam." Such teams are publicized with each team There is seemingly no end to the creativity of Twitter's users to deal work within the constraints and use the affordances to do what they want.

**Real World**

There has always been a strong relationship between Twitter and the real world. When it initially rolled out, Twitter was more mobile-focused and users often used it when they were out and about. Now that Twitter has matured more, there is still a substantial component of the community and service reinforcing real world events and

activities. The community does not explicitly promote or celebrate any shared events that strengthen its identity, but it does place importance on personal events of its members.

Twitter thrives with its focus on personal events. People keep up with other people on the small scale. There isn't much of a global community so the focus is on people having conversations, and posting to each other, not some collective whole. The idea of a thread is absent here because posts are tied to users not to topics. The ability to reference other users allows for a primitive chain of conversation, but it takes a lot of work to follow. It is more natural to track all the updates of a person, giving it a more holistic view of individuals instead of glimpses on various posts. The nature of a tweet is a personal update. When describing constructional-design principles in "Pianos Not Stereos: Creating Computational Construction Kits", Amy Bruckman points out that personal connections allow users to employ their previous knowledge when interacting with familiar objects and actions (Bruckman 1996). When Twitter users are able to work with personally-meaningful actions, they inherently more interested in the action and can draw upon previously conceived ideas about working with those actions. Users post short messages that are status updates. This allows people to post about events going on, and for readers to reply with a relevant tweet. The lack of conversational tools leaves personal events and announcements as the bulk of the postings.

Jenna said that "Everyone I have on my twitter I know in real life." This is not an unusual thing to have twitter as a supplement, an additional tool for friendships already in place. Due to its limitations it would be hard to really get to know someone or build a rapport.  There just is not enough information traveling in any concise manner. Twitter becomes a tool and an inside joke between friends. People refer to real events and the

people that were involved in posts. Tweets serve as documentation of what people are doing and who they are doing it with. Twitter gives people more to talk about and relate to each other.  Rachel Keslensky found out about a free even on Twitter and she reported, "[I] basically had a really good time there with a bunch of people I probably wouldn't have hung out with otherwise and it's all thanks to Twitter."

Twitter is a unique online community in that it facilitates real-life meetups rather than hindering them. Twitter's real-time and ubiquitous characteristics make it ideal for scheduling and managing impromptu events, particularly micro-events (events planned and carried out within 24 hours).  This has been the case with Heather Griggs: "Yeah, with a couple of my sorority sisters we've organized stuff over Twitter. Just say I'll be in chapter at this time, meet me there or we're going to dinner before chapter."  Twitter's SMS abilities make it especially handy for facilitating real-life meetings. Users may choose to be notified via text message when certain people post new tweets, which is almost necessary when dealing with tweets containing time-sensitive information such as meeting time and location.

Twitter promotes the increase in weak ties on its site.  Many users tend to follow people that they do not know personally. In Barry Wellman and Milena Guila's article, "Virtual Communities are Communities: Net Surfers Don't Ride Alone," the pair discuss how weak ties on the internet are useful.  The authors state that "On-line and off-line, weak ties are more apt than strong ties to link people with different social characteristics Such weak ties are also better than strong ties for maintaining contact with other social circles" (Wellman 1995).  Twitter is a very strong example of how these many weak ties can be effective on the net.

**Versatility**

These nine design principles for community-building describe how Twitter is equipped to grow a community and carry out a defined purpose. That purpose of asking users to share what they are doing with their followers is more of a suggestion than a guiding rule behind Twitter. Community members have ended up using Twitter for much more than it was intended. While typical tweets deal with what people are actually doing, a large portion of the tweets we have seen on a daily basis are in a different league altogether. Some of these uses and examples are below:

- Asking a question

- Groceries/food

- Boasting

- Links to everything from breaking news to blog posts

- Tech-related (talking about iPhone)

- Personal Portfolio

- Weekend plans

- Sleep and lack of sleep

- Locations

- @Name replies

- Current events

- Venting about school and work

- Weather

- Mood/current condition

- To Do List/Agenda for the day

- Trying to be funny

- Music

- Likes, Dislikes, Concerns

*Emily Reize*:

"Sometimes I record the idiotic moments in my life, which I, when I sober up regret but I, ya. Honestly, I use it a lot to record the funny quotes that people say throughout the day. Especially professors. Professors say especially amusing things when they're taken out of context. I record it there."

*Micheal Turner***:**

**"**Not super technical, I did um, when I was looking for a bike a year ago I did send a mass twitter  - hey anyone have any suggestions for a road bike, used or not used, and I'd get a couple replies back from that from some avid cyclists. Recently though I posted a couple of things, one about SCRUM, we're using SCRUM methodology and wanted to see if folks had pitfalls or best practices and I sent something out on Twitter and didn't hear anything back. I don't know if anybody uses it or nobody cared to reply. So it varies, but I think in a year or so when I go to get a new computer I'll definitely post something there and get quite a bit of feedback."

*Bill Johnson***:**

**"**Yeah, when I heard about the tornadoes I turned on my laptop and I was like maybe I should update Twitter about this...tornadoes in Atlanta, I hope everyone's okay and then I went on Facebook and everyone was like holy crap tornadoes, holy crap tornadoes, hope everyone's alright over here.  I find that really interesting."

*Jenna Griffin*:

"I don't even think my friends read it, it is kind of like an updater for my webpage."

Twitter is a versatile medium. There are numerous ways to interact with the service and various uses for the service. Given the wide range of tweets posted on Twitter by each user, it is necessary to note that the tweets are expressions given, not expressions given off. Erving Goffman explains that expressions given are deliberately stated messages indicating how one wishes to be perceived (Goffman 1959). Unlike expressions given off, or assessment signals as clarified by Zahavi's Handicap Principle, expressions given are not necessarily the factual messages (Donath 1996). Through this analysis, it can be seen that not all tweets are to be taken as the truth. Some tweets may be fabrications while others merely exaggerations or even genuine.

## Comparisons

Many people that were interviewed stated that they believed that Twitter was a social networking site. The majority of those interviewed stated that they believed a social networking site was a website that facilitated communication between its users. Due to this classification, many users are able to draw similarities between Twitter and sites such as MySpace, Facebook, and LiveJournal. Specifically, Facebook status updates were recurrently compared to Twitter posts in interviews. Due to Twitter's simplicity and privacy setting availability, Emily feels she can be more liberal about the content in her tweets. She went on to say how with Facebook, users, including her, friend people who they may meet only once and not know that much about. This gives that person access to her profile including her Facebook status. With Twitter, Emily is more selective with her

followers; locking her Twitter page and blocking those who try to follow her that she does not know. When asked directly about her comparison of the two devices, she states that "...they can be the same thing but um, to me they're essentially the same its just that with twitter I can be more liberal and that's the reason, that's the distinction that I make between them. There not as you know, verbally inflexible. To me the Facebook status updates is very verbally inflexible in that you can't, like it has to be about you and something you're specifically doing or you come up with weird, strange, grammatically incorrect sentences." Josh also has a similar view on the comparison of Facebook updates with Tweets. Josh's uses Twitter primarily to as a venting tool and to transcribe his occurrences during the day. When discussing Facebook status updates he states that "...I think that they're updated a lot less frequently. I don't use the Facebook status updates in the manner that I do for Twitter. I'll use the Facebook status updates for some sort of humorous, ya know, humorous effect."

One key element that Eric sees as a difference between Twitter and Facebook is that Facebook is constantly trying to create more applications and feed more information into Facebook. While Twitter has undergone some minor aesthetic and functionality alterations, the overall use has not changed. Josh adds that "...unlike Facebook or MySpace which have a laundry list of things they do. Twitter lets you know what your friends are doing at that point..." For Eric and Josh, Twitters more focused mission separated it from the more complex social networks.

**Conclusion**

In terms of community activity and growth, Twitter is successful. The community is thriving. Users start conversations and interact with each other regularly while going

beyond the Twitter's original purpose of answering the question "what are you doing now?" Kollock outlined Elinor Ostrom's design principles of successful communities (Kollock 1996). One of these principles deals with clearly defined group boundaries so that there is a clear sense of who might make use of collective resources and avoid people that use resources and do not contribute. In the context of Twitter, this falls under the functional design of the community. Users must manually follow people to see their updates on their homepage. This key design element makes undesirable Twitter content - spam, lurkers and trolls - easy to ignore; users simply do not have to follow them back. If they become burdensome, they can be blocked.

While Twitter is in fact successful as a community, it does not necessarily meet the needs of its members. As previously noted, there is no mechanism in place to facilitate or even support the creation of sub-groups. Involved users were able to formulate their own convention by working around limitations. The people we interviewed did have several thoughts for improving Twitter and making it fit their needs. Michael Harris wished it was easier to find people since they tend to use an alias instead of their real name. Rachel Keslensky suggests having different icons for various moods in addition to the Twitter posts and having a way to thread replies in to make reading conversations easier. Twitter users following many people thought it would be helpful if there were filters or groups to separate updates they were more interested in viewing from the rest of the people they are following. If we could change Twitter we would like to see an implementation or support structure for groups as well as more reliable service.

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