LIMINAL ENTITIES: IDENTITY, GOVERNANCE, AND ORGANIZATIONS ON TWITTER

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Chapter 1: Introduction

In recent years, social network sites (SNSs) have become heavily used online spaces for people to congregate and to interact with others. As the popularity of SNSs increases, organizations—usually less privileged than individuals by these sites—seek to establish a legitimate presence on these sites. Inevitably, collisions between the competing interests of individuals, organizations, and the coding authority (the company behind a particular SNS) have increased as well. Each of these parties projects certain norms onto the social space they collectively inhabit. These projected norms are constantly being developed, tested, revised, and discarded by users of these sites.

Boundaries between individuals and organizations sometimes blur on SNSs, where the social cues that collectively form an online identity can be managed and manipulated with supple control. Although several coding authorities have written strategies for the coexistence of individuals and organizations into the architecture of these SNSs—such as the creation of a separate category or identifying characteristic for organizations—the negotiation of social norms between the three aforementioned parties continues alongside these rules embedded in code. As an SNS that provides an easily accessible history of public exchanges between accounts and provides less distinction between organizational and individual accounts than other SNSs, Twitter offers an excellent opportunity to observe the process of rule/norm negotiation—especially as it pertains to user attitudes towards organizational presence.
I will profile two users that illustrate the evolving social environment of Twitter. The first user is a political columnist, Chris Cillizza, who maintains an online blog called “The Fix” for The Washington Post. Cillizza maintains two accounts on Twitter. He posts several types of updates on the first account, named “TheFix”: (1) links to news analysis pieces he has written for the Post; (2) short, often witty remarks on breaking political news; (3) questions to his Twitter followers about upcoming columns or about his use of mobile technology; (4) personal updates about his family and his love of Georgetown basketball. Additionally, Cillizza has “rented” space on the first account (“TheFix”) to a company that posts occasional advertisements to Cillizza’s account. The second account, named “TheHyperFix,” is active only when Cillizza is updating frequently during political events such as White House press briefings.

The second user is quite different from Cillizza. In late 2008, Twitter users who used the word “pony” in their tweets started noticing automated responses—typically “Wheee!!! Pony!!!”—sent to them from a computer program (or “bot”) using an account appropriately named “Wheeepony.”¹ In a post on his blog, Twitter user Dave Delaney (2008) wrote about his encounter with Wheeepony: “There’s no link to who is responsible, or why they have set up this auto reply, but that’s why it’s great … I hope this doesn’t turn out to be some lame attempt at viral marketing for a new movie about ponies, or perhaps the 25th anniversary of My Little Pony. If this remains anonymous I will be a happy camper.”

¹ These interactive Twitter accounts that respond to prompts are colloquially known as “Twitterbots.”
Later, Delaney interviewed Wheeepony and asked the following question towards the end of the interview: “Would you care to reveal who you really are? Where you’re from? What you do? What’s your real @twittername?” Wheeepony responded in character: “All I guess I really know is who my best friend is: the next person who says ‘Pony.’” (Delaney, 2008)

Although the bot proved to be quite popular, Twitter eventually suspended Wheeepony and redirected users to a page outlining its criteria for terminating accounts —including “updates consist of duplicate or repeating links or text,” which was likely the cause of this particular suspension. A group of Twitter users lamented the loss of Wheeepony, and lobbied Twitter to restore the account. For example, Sharon Greenfield wrote in February 2009 that she “complained to [Twitter] for shutting down @wheeepony” and that “[Wheeepony] was a great artful use of the medium.”

These accounts begin to illustrate the different uses of Twitter by individuals affiliated with an organization, the relationship between accounts controlled by a single person and other types of accounts (e.g. bots or organizational accounts), and the presence of social norms and rules for identity and interaction on Twitter. To address these issues, I ask the following research questions in this study:

**RQ1:** How does the process of evaluating identity affect the perception of organizational presence in social network sites?

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2 Twitter users often use the @ symbol in front of an account’s name to refer to the account (e.g. @pong to refer to the “pong” account). Referring to accounts this way enables the referenced account to find updates containing their Twitter account name. Here, Delaney presumes a person who also has a “real” Twitter account maintains the Wheeepony account.
RQ2: How does the process of rule formation/negotiation affect the perception of organizational presence in social network sites?

I investigate these questions over the course of three chapters. Chapter 2 attempts to define Twitter as a social network site and goes on to discuss the different mechanisms of interaction on the site. Chapter 3 examines theories relating to identity and theories relating to rules of interaction/social norms to explore how these theories affect the perception of organizational presence in Twitter. Finally, Chapter 4 investigates why individuals use Twitter by discussing the results of a survey conducted to obtain a snapshot of current usage and the implications of these results for organizations seeking to enter Twitter.
Chapter 2: Twitter as a social network site

Definition

Boyd and Ellison (2007) define social network sites as “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.” Today, many examples of SNSs exist, including Facebook, MySpace, and Twitter.

At its most basic level, Twitter is organized around short (140 characters or less), frequent updates informally known as “tweets.” Initially, Twitter was designed for and primarily used for posting and viewing status updates among groups of friends, much like Facebook. Indeed, early adopters of Twitter lamented that they had to now update their status in two places, indicating that they thought of Twitter updates as essentially the same as Facebook status updates. The dominant usage of Twitter, however, changed as the site matured and other uses emerged and spread through the network. Despite this shift in usage, the core functionality of Twitter still revolves around basic features found in other SNSs.

Twitter—although significantly different from SNSs primarily concerned with interpersonal connections such as Facebook and Friendster—still qualifies as an SNS by virtue of its components. Profile construction, the first element of boyd and Ellison’s
definition, is largely accomplished on Twitter via an individual account’s history of updates. Twitter also allows users to articulate connections to other users by “following” an account; traversal of connections is accomplished either by viewing the update history of a particular account or, more commonly, by having updates from followed accounts displayed as a continuous stream of information on a user’s “home” page. These abilities satisfy the second and third conditions of boyd and Ellison’s definition.

In addition to allowing users to post updates from the Twitter website and various desktop clients, Twitter simplifies posting updates from mobile devices via text messages sent to a shortcode\(^1\) or via clients such as Tweetie and TwitterFon\(^2\). The initial focus on mobile devices played a major role in the adoption of Twitter, as it enabled users to post updates and review their contacts’ updates from locations other than in front of their desktop computer. This was in contrast to other SNSs which were generally accessed via a desktop Web browser. In addition, the focus on mobile devices led to the aforementioned 140 character constraint for updates:

> Back [in 2006], we had no character limit on our system. Messages longer than 160 characters (the common SMS\(^3\) carrier limit) were split into multiple texts and delivered (somewhat) sequentially. There were other bugs, and a mounting SMS bill. The team decided to place a limit

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\(^1\) A shortcode is shorter than a full 10-digit telephone number and is used to “listen” for and receive messages from users of a particular service. To update your status on Twitter, for instance, you could send a text message from your cell phone to the shortcode 40404.

\(^2\) Clients are applications downloaded onto a mobile phone; they are an alternative to accessing Twitter via a simple Web browser or posting messages directly to a shortcode. Tweetie and TwitterFon are two popular iPhone applications that streamline viewing and posting updates.

\(^3\) Messages sent via Short Message Service, also called texts.
on the number of characters that would go out via SMS for each post. They settled on 140, in order to leave room for the username and the colon in front of the message (Sagolla).

**Components**

In this section, I examine the aspects of Twitter shared by other social network sites and detail the differences that set Twitter apart.

**Communicating identity through status updates**

When an individual user logs into Twitter, they are presented with an input box (Figure 2.1) with a deceptively straightforward prompt: “What are you doing?” As explained on the Twitter site, “even basic updates are meaningful to family members, friends, or colleagues—especially when they’re timely.”

Updates entered into this box (or via other methods of updating such as mobile clients and text messages sent to the Twitter shortcode) serve as the primary mechanism for communication on Twitter, meaning that the site focuses almost exclusively on the status update. Conversely, SNSs such as MySpace and Facebook have built into the code of their sites several additional ways (including posting comments on a contact’s profile, rating an item posted by a contact) for users to communicate.

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4 “Why use Twitter?” http://www.twitter.com/help/why
The concept of the online status update became ubiquitous with instant messaging (IM) services and was eventually extended into SNSs. IM services such as AOL Instant Messenger and Google Talk allow users to enter a short message displaying their status to their contacts (e.g. “at the gym,” “away from keyboard” or “playing a game that takes up the full screen.”) As the second and third examples might imply, away messages were originally developed to address the ambiguity of whether a “non-response reflects some message effect (e.g., his or her last message insulted the addressee) or whether the addressee is otherwise engaged (e.g., multi-tasking) or is no longer at the computer” (Nastri and Hancock, 2006).

The use of away messages in instant messaging to establish presence with others was noted by Baron, Squires, Tench, and Thompson (2005):

Like texting on mobile phones, away messages in IM enable users to establish a continuing sense of social “presence”. That is, the away message function of instant messaging enables those posting messages to be physically mobile (even when not using a mobile communication device)
because the user’s social presence is maintained in his or her physical absence from the computer (Baron, Squires, Tench, Thompson).

Although the concept of presence will be explored in greater detail in the next chapter, it is mentioned here because Twitter’s ability to support a feeling of presence among members of a group of contacts served—and continues to serve—as the initial draw for many users.

Twitter co-opted the concept of away messages—and, by extension, the phenomenon of presence—to serve as the centerpiece of its network. The banality of status updates remains a common criticism of Twitter, especially since these updates are frequently public (as opposed to instant messaging where away messages are usually only visible to members of one’s network); however, even mundane status updates serve a purpose within a social network. In a clear example of presence at work, Twitter users often report feeling connected to their social network via updates even while physically apart. For instance, this account from Lawley (2007), an early adopter, points to presence as the reason seemingly trivial updates matter on Twitter:

Asking “who really cares about that kind of mindless trivia about your day” misses the whole point of presence ... It’s about letting the people in your distributed network of family and friends have some sense of where you are and what you’re doing. And we crave this, I think. When I travel, the first thing I ask the kids on the phone when I call home is “what are you doing?” Not because I really care that much about the show on TV, or the homework they’re working on, but because I care about the rhythms and activities of their days. No, most people don’t care that I’m sitting in the airport at DCA, or watching a TV show with my husband. But the people who miss being able to share in day-to-day activity with me—family and close friends—do care.
Updates—status or otherwise—comprise the most visible and nuanced feature of Twitter accounts. As Donath (2009) states, “online, history is the equivalent of the body.” On Twitter, an individual’s identity is primarily communicated through their history of updates. These updates—particularly when they contain personal information—can have the effect of transmitting seemingly complete personalities over time. As a *New York Times* article put it: “Merely looking at a stranger’s Twitter or Facebook feed isn’t interesting, because it seems like blather. Follow it for a day, though, and it begins to feel like a short story; follow it for a month, and it’s a novel” (Thompson, 2008).

While Twitter can be used to passively view and post status updates without acknowledging other users on the network, it can also be used for interaction. Twitter users send messages to each other via updates in two ways: (a) “tweeting at” another user publicly (e.g. “@user message”) or (b) sending a private direct message (DM) to another user. These uses of the update box for interaction between accounts have become part of the Twitter lexicon for experienced users.

In general, Twitter provides a very simple (and limited) set of ways to interact with the site. Although Facebook similarly possesses a status update function (“What are you doing right now?”), this is only one of many components available to articulate each user’s profile. Conversely, the stream of updates or tweets is the focal point for each user on Twitter. Indeed, mechanisms of profile articulation other than update history are
limited to name, location\textsuperscript{5}, website, design theme, and a 160 character biographical sketch—a much more limited version of what Facebook or MySpace offers, for instance. Additionally, a fine set of controls currently does not exist to manage the marking of updates as public or private; instead, Twitter relies on a simple on/off setting for privacy. On the whole, Twitter’s available profile options are dwarfed by the options provided by other popular SNSs. As the Twitter site mentions, “simplicity has played an important role in Twitter’s success … Twitter’s core technology is a device agnostic message routing system with rudimentary social networking features.”

Boyd and Ellison (2007) noted that “structural variations around visibility and access are one of the primary ways that SNSs differentiate themselves from each other.” As certain social architectures and pieces of functionality become successful within SNSs, competing sites often attempt—with varying degrees of success—to appropriate those features for their own sites. For instance, MySpace added status update functionality similar to Facebook after that functionality proved to be popular. In another example of the cross-pollination across SNSs, Facebook adopted a design model similar to Twitter’s stream of updates in February 2009 by changing the information displayed on the page displayed to an individual user upon logging in. As described in an article in the \textit{San Francisco Chronicle}, “the changes give Facebook more immediacy, much like the stream of micro-posts that spew from Twitter.” The article, however, also explores how

\textsuperscript{5} Location can be a simple description entered by the user or GPS (Global Positioning Satellite) coordinates posted automatically by a Twitter client.
the two sites differ and why this might limit the extent to which Facebook can implement some of Twitter’s features (and vice versa):

Jeremy Liew, managing director of venture capital firm Lightspeed Venture Partners, said that Facebook and Twitter are competitive, but only to a point, because people use them differently. Facebook fosters private conversations and frivolity that users wouldn’t engage in if everyone could see, Liew said. Twitter, on the other hand, is very public and increasingly promotional as users market themselves and their companies.

**Following and blocking**

Twitter uses the concepts of following and blocking as simple mechanisms for users to connect to other accounts. Three types of articulated relationships exist on Twitter: (a) reciprocal following, where both accounts follow each other, (b) one-way following, where the first account follows the second but the second does not follow the first, and (c) blocking, where one account blocks another account from following their updates. To illustrate the different types of relationships possible on Twitter, consider the following scenarios involving two accounts labeled A and B. Once Account A follows Account B, the latter account’s updates will appear in the Account A’s update stream. This relationship may or may not be reciprocated by Account B; alternately, Account B may opt to block Account A from receiving updates. Later, Account A may choose to unfollow Account B.

Each of these Twitter relationships do not, of course, map directly to offline relationships and the social norms which govern them. As boyd and Ellison (2007) point out, “the term ‘Friends’ can be misleading, because the connection does not necessarily
mean friendship in the everyday vernacular sense.” Instead, a separate set of rules and social norms particular to Twitter (and smaller groupings of accounts contained within Twitter) governs the meaning of and threshold for each of the aforementioned actions. This type of governance will be further explored in the next chapter.

**Traversal of relationships**

Twitter users generally traverse their network via the aggregated stream of updates from the accounts they follow; in fact, this stream comprises the starting page for accounts and may be the only traversal mechanism used by some users. Twitter also allows users to view the chronological posting history of an individual account.

A key aspect of Twitter is the ephemerality—at least as perceived by users—of its content. As described on its About page, Twitter does not build in the expectation that users read and respond to every message:

> The result of using Twitter to stay connected with friends, relatives, and coworkers is that you have a sense of what folks are up to but you are not expected to respond to any updates unless you want to. This means you can step in and out of the flow of information as it suits you and it never queues up with increasing demand of your attention.

The ability to passively read or scan a Twitter stream without necessarily feeling compelled to respond may explain how Twitter users can follow a significant number of people without feeling overwhelmed. The system also allows users to tweak the stream of information/updates they receive by “unfollowing” accounts they deem unacceptable for being unhelpful or annoying. Negative forms of connection management are carried
out in a subtle fashion, as the act of unfollowing or blocking an account does not send
notifications to the targeted account.

**Beyond local networks: Search and the *zeitgeist***

Examining SNSs on two levels—the “local” level of an individual user’s network
and the “global” level of the site as a whole—yields insights into the experience of the
user and the way the coding authority has set up the architecture of the site. SNSs offer
varying degrees of awareness of these different levels; for instance, Facebook crafts the
experience of the user to emphasize one’s personal network. Twitter, on the other hand,
makes a conscious decision to provide—and even highlight—a wider view of the entire
Twitter community in addition to the view of one’s local network that appears when a
user logs into the site.

A collection of tools offered by the search engine Google provides a useful
metaphor for this wider view of a community. Google offers a look at trends through a
section of their site\(^6\) called “Google Zeitgeist: Search patterns, trends, and surprises”
where they offer tools that “reveal [‘the spirit of the times’] through the aggregation of
millions of search queries [Google] receives every day.” In the same vein, Twitter offers
search.twitter.com, which serves two basic purposes. First, it performs a basic search
function by letting anyone (i.e. not only Twitter users) search—and reconstruct
conversations from—an archive of public updates posted to Twitter. Second, it highlights

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emerging topics of discussion within the network as a whole. This latter function can be considered the zeitgeist of Twitter—an ever-evolving aggregate snapshot of activity on the network. In an example of zeitgeist-style monitoring of trends, Twitter created a special site during the 2008 presidential election that included a list of election-related topics that were being discussed at any given time.

Officially announced by Twitter in July 2008, search.twitter.com quickly began to change the scale of network awareness for individual Twitter users. In addition to seeing updates within their personal network, users became more aware of trends rippling through Twitter. Expectations of privacy (or lack thereof) also changed, as the history of a user’s updates and conversations between users became much more accessible.

The ability to search Twitter exchanges and to watch activity around a specific topic spurred the use of conventions that took advantage of the increased scale of awareness. One such convention is the usage of hash tags, a way for post authors to indicate that a post belongs to a specific topic of discussion. For instance, a hash tag might emerge or be announced for a specific event or discussion group (e.g. #election08 or #georgetown); all subsequent postings intended to be “findable” by the group should include this hash tag. Twitter also provides the ability to generate RSS (Really Simple

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7 The ability to search Twitter existed prior to the official announcement date in July 2008, as a third party supplied this functionality prior to being bought out by Twitter.

8 Here, “hash” refers to the # (hash) symbol. This may be a convention borrowed from discussion groups within Internet Relay Chat (IRC) where channels were similarly named with hash symbols.
 Syndication) feeds\(^9\) for a given search term, allowing users to subscribe to certain words (e.g. “Cisco” or “iPhone”) or hash tags.\(^{10}\) Individuals use RSS feeds generated from Twitter search terms to track discussion around breaking news or events such as technology conferences or product launches; additionally, several organizations have used these RSS feeds to monitor discussion about their products or services and to gauge when to respond to Twitter users.

**Companies, organizations, and other entities**

Twitter studiously avoids ascribing particular uses to the service, stating, “Twitter is what you make of it.” In an interview with Twitter CEO Evan Williams, technology writer David Pogue writes:

> Twitter, in other words, is precisely what you want it to be. It can be a business tool, a teenage time-killer, a research assistant, a news source—whatever. There are no rules, or at least none that apply equally well to everyone.

As Shirky writes, “most twittering is for the benefit of friends rather than for the general public … [Tweets] are interesting not so much because the messages themselves are informative, but because the receiver cares about the sender.” (184) This sets up an interesting paradox. The lack of formal delineation (i.e. no separate category for

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\(^9\) Subscribing to RSS feeds is somewhat akin to subscribing to a newspaper. Feeds—based off a data source such as a particular user’s Twitter updates—are read via a client which regularly checks each feed to see if new material has been posted. If new material is found, the client notifies the user. The use of RSS feeds obviates to some degree the need to manually check a web site for new material.

\(^{10}\) Twitter also provides these feeds for updates from individual accounts.
organizations) between organizational accounts and individual accounts leads to a feeling of greater access to organizations, which can lead to more productive exchanges; at the same time, a danger exists for organizational accounts that do not react as an individual might during an exchange. There are potential costs to rescinding a “real person” persona once the expectation of authentic interaction has been set up, as individuals may punish accounts that break out of an established character.

Organizations have had a difficult time carving out a niche in many social network sites, as SNSs generally focus on personal relationships. MySpace’s slogan, for instance, is “a place for friends”; Facebook purports to help you “connect and share with the people in your life”; and Twitter is “a service for friends, family, and co-workers to communicate and stay connected.” Each site’s description pointedly emphasizes individual-to-individual connections and generally ignores the presence of organizations.

Given the focus on personal relationships, organizations have found it difficult to establish themselves as legitimate citizens of SNSs. Twitter, however, has proved to be something of an exception to the rule as it supports a large number of organizations. Hansell (2007) attributes greater potential for marketers on Twitter compared to Second Life—a virtual world—to individuals’ desire for useful information:

For an Internet service to be a good place for marketers it needs two things: 1) A large audience. 2) A way to integrate the marketing message in a way that users will at a minimum accept and ideally find useful ... Second Life fails on both counts. The dedicated audience is very small. It’s hard to learn how to use it. And it appeals mainly to people who, for various reasons, want to engage in unstructured role playing with strangers. That’s a real market, but not a mass one, I suspect. Moreover, marketing does not fit naturally into that sort of role playing. Mostly people
don’t go to Second Life to interact with companies. Advertising might work if the game stopped every few minutes for commercials, but users might revolt. In contrast, Twitter has some obvious commercial uses, just like e-mail. Some people want updates from companies they deal with. The trick for marketers will be to find the right balance of useful information so that customers don’t turn them off.
Chapter 3: Identity and governance

Several theoretical constructs function as underpinnings for social network sites. In this chapter, I review theories that deal with identity and rules/norms in social systems. First, I examine the concepts of social categorization and presence, which deal with how individuals construct, perceive, and interpret identity in mediated environments—a prerequisite for interaction on Twitter and on social network sites in general. I also discuss the concept of liminal entities—accounts that do not fit neatly into commonly encountered social categories—in this section. Second, I look at how rules and social norms are continually negotiated between individuals, organizations and coding authorities by discussing historical examples of this negotiation in social network sites. I also discuss cheating and transgressive play as events that temporarily (or permanently) upset the equilibrium of a social network site and illuminate power relations at play within the social environment.

For the purposes of this study, I define entities as inclusive of the following types of accounts on SNSs: (1) individual accounts controlled by a human, including those that post primarily personal content and those who primarily post work-related material (e.g. a columnist for The New York Times); (2) organizational accounts, which include accounts representing entire organizations (e.g. MSNBC) or a specific component of an organization (e.g. Comcast technical support); (3) feeds, accounts automatically updated from a data source; and (4) bots, interactive accounts controlled by a computer program.
Additionally, I consider Twitter as a coding authority—that is, an entity that can enact code-based rules—with the ability to shape the social environment for the aforementioned parties.

**Identity**

Donath (2000) defines *teleidentity* as the question of “how do we—or do we—one another person whom we have encountered in a mediated environment” (p. 297). When users of a social network site encounter other entities—including both individuals and accounts representing an organization—they go through the process of *social categorization* to identify the encountered entity. Donath (2000) outlines this process: “Upon encountering a novel object (or person or situation), we characterize it in terms of familiar categories, which allows us to draw inferences about it and to assign it properties beyond our immediate experience” (p. 303).

What are the “familiar categories”—both built into the architecture of the site and taken from the experience of an individual user—available to users of a given social network site? Facebook, for instance, separately classifies entities as individuals, groups, and pages (for organizations and public figures) via the architecture of the site. Twitter makes no such distinction between entities. Instead, users must determine the type and identity of encountered entities without overt assistance from the architecture of the environment.
To engage in social categorization, the available pieces of an entity’s identity must first be transmitted from the entity in question to the user in order to form a conceptualization of that entity. Individuals rely on available cues to gauge humanness and credibility of novel entities in the mediated environment of a social network site where complete identities may be inaccessible. Despite the relative scarcity of cues on Twitter—compared to face-to-face interaction and even other social network sites that provide additional ways to articulate personal information—an impression of a whole individual from these fragments is still possible. As Simmel (1910) wrote:

We are all fragments … The vision of our neighbor, however, enlarges this fragment to that which we never are completely and wholly. He cannot see the fragments merely side by side as they are actually given, but as we offset the blind spot in our eye so that we are not conscious of it, in like manner we make of these fragmentary data the completeness of an individuality (p. 379-380).

It is important to note here that the process of assembling an impression from available fragments is heavily dependent on two things: (a) the quality and completeness of fragment transmission and (b) an individual’s experience (i.e., if the user has encountered this type of entity in the past, they are able to quickly categorize a similar person in the future). These dependencies can cause the accuracy of social categorization to vary greatly.

Additionally, social network sites often introduce unique constraints on the ability of people to generate and interpret social cues. For instance, Twitter limits its users to 140-character messages and a short profile; this is a dearth of available cues compared to more verbose (in terms of opportunities to articulate social cues) sites like Facebook and
MySpace and likely makes the task of determining identity (or at least the accuracy of the task) more difficult.

**Multiple identities and coherence**

The question of how users deal with multifaceted identities becomes important on social network sites where users rely heavily on fragments—to “offset the blind spot,” as Simmel wrote—to gauge identity and where obtaining a complete picture of another account’s identity may be difficult or impossible. As Donath (2009) asks, “What is our collective norm about having different facets to your personality? What happens in an online world where it’s very easy for those [facets] to be collapsed?” Turkle (1995) suggests this collective norm forms in response to the particular definition of identity in use in a given system:

> When identity was defined as unitary and solid it was relatively easy to recognize and censure deviation from a norm. A more fluid sense of self allows a greater capacity for acknowledging diversity. It makes it easier to accept the array of our (and others’) inconsistent personae—perhaps with irony. We do not feel compelled to rank or judge the elements of our multiplicity (p. 261).

Turkle’s notion of “greater capacity for acknowledging diversity” may help explain why organizations have found Twitter a more welcoming environment than Facebook. The latter defines the identity of users rather strictly and places a high value on tying real-life identity to online identity, while the former generally leaves the definition of identity to its users and makes no formal—that is, code-based—distinction between individuals and organizations. Additionally, the more relaxed definition of user identity on Twitter may
explain a degree of tolerance for “inconsistent” behavior—for example, a newspaper columnist with a Twitter account devoted to Major League Baseball that suddenly starts posting detailed updates about stock market advice—that might be rejected on SNSs with a stricter definition of user identity. As a result, users on Twitter may be more willing to accept and coexist with a wider range of entities—including different types of organizational accounts and bots—and a wider range of personalities contained within a single account.

**Liminal entities and social categorization**

How do individuals conceptualize and interact with accounts that are outside previously encountered social categories? This question is of particular relevance to social network sites due to the common focus on individual identity and interpersonal relationships—a focus that often pushes organizational accounts and bots to the edges of the familiar. Victor Turner (1969), an anthropologist, describes the concept of liminal entities:

The attributes of liminality or of liminal *personae* (‘threshold people’) are necessarily ambiguous, since this condition and these persons elude or slip through the network of classifications that normally locate states and positions in cultural space. Liminal entities are neither here nor there; they are betwixt and between the positions assigned and arrayed by law, custom, convention, and ceremonial (p. 95).

The term “liminal entities” is used here to describe unfamiliar accounts on SNSs whose type and identity have not yet been resolved through the process of social categorization.
Turner interprets ethnographer Arnold Van Gennep’s definition of rites of passage as a three-stage process and situates the liminal stage in the middle of this process. Aggregation, the final stage, finds the liminal entity “in a relatively stable state once more and, by virtue of this, has rights and obligations vis-a-vis others of a clearly defined and ‘structural’ type; he is expected to behave in accordance with certain customary norms and ethical standards binding on incumbents of social position in a system of such positions” (Turner, p. 95). When applied to SNSs, the sequential stages of liminality and aggregation suggest that users must be able to move liminal entities through to aggregation in order to accept them as conversational partners—or, at the very least, to allow them to coexist in the same social space. The way the architecture of a SNS is configured can either promote eventual aggregation for most liminal accounts or keep certain types of accounts in a perpetual state of liminality.

We can look at how people have determined the identity of computers for insight into how Twitter users might determine the identity of liminal entities and eventually aggregate them into the social order. A text-based conversation between Julia, a “chatterbot” programmed to interact with players in a MUD1 and Lara, a human player, serves to illustrate how the process of social categorization works with liminal entities in a mediated environment where Lara initially believes she is interacting with a human. Julia—programmed to steer the conversation to hockey when confronted with questions/topics she knows little about—alternately intrigues and frustrates Lara over the course of

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1 Multi User Dungeon. MUDs are text-based virtual worlds that peaked in popularity during the 1990s.
several conversations. In an interview with Foner (1997), Lara describes her interaction with Julia and how she acted after realizing that Julia was a bot:

“Lenny, I had a chance to talk with Julia for about 30 or 40 minutes yesterday after you disconnected. I noticed her ‘secret’ after about 5 or 10 minutes. At first, it was fine to chat with her about hockey. She started to ask the same questions after a bit. This was the tip off. She started to repeat herself on a regular basis. It was hard for me to follow her conversation. I got frustrated with her for the first couple of minutes. When I found out her secret, I started to have some fun with her. I asked her questions that maybe she had no knowledge of ... I was basically patient with her for the first little bit while when I first met her. She did have a problem with her social skills which I tried to be sympathetic to. I did however, try to avoid her after the first couple of encounters when all she did was talk hockey.”

As their dialogue progresses, Lara develops and discards several social category matches for Julia. As Donath (2000) recounts:

We can see this categorization process at work in Lara’s progression of hypotheses about Julia’s identity, from boring human to mentally handicapped human to computer program. Provided with only the typed words exchanged in a series of not very length conversations, Julia’s interlocutor (Lara) classified her as at first one and then another social type. By doing so, Lara was able to think of Julia not simply in terms of the fragments of their actual interchange, but as a fully imagined social type (p. 304).

Foner points out the importance of expectations for user interaction with liminal entities such as Julia:

The domain of a MUD is ideal in correctly setting expectations about the reliability and power of an agent such as Julia. Since the setting is fundamentally playful, and usually also somewhat unpredictable, it is natural to interact with playful and unpredictable characters (be they machines or humans). Nothing in a MUD is truly life-critical, hence the user generally does not have very high expectations of reliability, which lets Julia get away with a lot of nonoptimal behavior that could never be tolerated in, e.g., an airplane cockpit guidance system.
Here we can see another potential lesson for social network sites: In general, users will tolerate and even seek out interaction with a wider variety of accounts if (a) the social environment is conducive to the types of interaction (in this case, “playful and unpredictable”) offered by those accounts and (b) interaction with such accounts does not threaten the reliability of the system. Indeed, the Wheeepony example from the first chapter is only one of many examples of playful—and popular—accounts active on Twitter.²

**Social presence**

The concept of *social presence* deals with how seamlessly individuals perceive other entities in social environments. Lee (2004) defines social presence as “a psychological state in which virtual social actors are experienced as actual social actors” (p. 45). Who—or what—qualifies as a social actor in Lee’s definition? Lee identifies two types of social actors: (1) *para-authentic*—the representation of other humans who are connected by technology and (2) *artificial*—non-human objects manifesting humanness (p. 41). In his definition, Lee draws a distinction between social presence and copresence, which “requires [the] sharing of a space with other humans”; instead, Lee’s characterization of social presence includes “simulated nonhuman social actors,” or artificial entities (p. 45).

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² Another example of a playful account on Twitter, common_squirrel, had over 2,000 followers as of April 2009.
Lee’s inclusion of artificial entities represents a significant break from previous definitions of social presence that assumed humans (or para-authentic representations of humans) would always fill the role of social actor. Previous definitions argued that “people’s social interaction with an artificial object is directed towards the people (e.g. programmers, manufacturers, etc.) who made the object”; however, another study by Lee (2002) “showed that people’s social responses to computer-synthesized speech are directed toward imagined virtual speakers, not programmers” (Lee, 2004, p. 31). Lee argues for the ability of artificial objects to directly (i.e. without mediation) establish social presence:

While interacting with an anthropomorphic robot, people can strongly feel that they are interacting with an actual human. In this case, social presence occurs even when the act of experiencing is not filtered through any media technology. That is, people can feel the existence of another human or human-like intelligence, even when no human is actually mediated by the robot. In this case, the robot becomes a new type of social actor that automatically elicits social responses from its users (2004, p. 31).

The range of virtual social actors can thus be imagined as a continuum stretching from transparent artificiality to manifestations of humanness to para-authenticity. Lee’s definition holds implications for organizations, whose online manifestations—including feeds and accounts representing the entire organization—often fit ambiguously into the aforementioned continuum.

Social presence, Lee concludes, happens when “technology users do not notice either artificiality or para-authenticity of experienced social actors (both humans and
nonhuman intelligences)—in other words, when users are not aware of the constructed or mediated nature of their conversational partner (2004, p. 46).

Biocca (1997) also introduces the concept of hyperpresence, which “suggests that although mediated social presence should be measured against the yardstick of face-to-face communication between two human beings, it may be possible to develop a medium in which one feels greater access to the intelligence, intentions, and sensory impressions of another than is possible in the most intimate, face-to-face communication.”

**Tests of authenticity**

Returning to the quote from Delaney in Chapter 1, we note that he hopes that the Wheeepony account “remains anonymous.” This indicates that the utility gained from following Wheeepony’s updates is at least partially contingent upon that account’s authenticity—i.e. if an account that provides enjoyment to users is discovered to be a promotion backed by a corporation, the constructed nature of the account, suddenly revealed, may lessen the enjoyment experienced by users following that account.

Mauldin (1994) illustrates how players assume authenticity (in terms of humanness) of all players until a deception is uncovered: “The chatterbot succeeds in the TinyMUD world because it is an unsuspecting Turing test³, meaning that the players assume everyone else playing is a person, and will give the chatterbot the benefit of the

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³ A machine is said to have passed a Turing test—named for British scientist Alan Turing—if it can fool an observer into thinking it is human.
doubt until it makes a major gaffe.” As we have seen with the case of Lara and Julia, a relationship may be continued—albeit with modified expectations—with a liminal entity even after a gaffe is committed.

Mori (2005) describes an interesting effect in robotics he terms the “uncanny valley.” The uncanny valley refers to a sudden negative reaction at the point where a robot’s degree of human likeness approaches—but does not quite reach—that of a healthy person. Up until this point, familiarity increases at a steady rate as human likeness increases; the term “uncanny valley” describes the dip in the relationship between the two variables. Mori uses the example of a prosthetic hand to further illustrate the effect of the uncanny valley:

Recently prosthetic hands have improved greatly, and we cannot distinguish them from real hands at a glance. Some prosthetic hands attempt to simulate veins, muscles, tendons, finger nails, and finger prints, and their color resembles human pigmentation … But this kind of prosthetic hand is too real and when we notice it is prosthetic, we have a sense of strangeness. So if we shake the hand, we are surprised by the lack of soft tissue and cold temperature. In this case, there is no longer a sense of familiarity … The appearance is quite human like, but the familiarity is negative. This is the uncanny valley.

Although the uncanny valley involves a physiological response, the concept can be used as a metaphor for the authenticity of entities on social network sites. Another parallel can be drawn from higher education. Recently, educational technologists have coined the term “creepy treehouse” to describe an “institutionally-created, operated, or controlled environment in which participants are lured in either by mimicking pre-existing open or naturally formed environments, or by force, through a system of punishments or
These spaces approximate the structure of authentic online environments but are “seen as more artificial in their construction and usage.” The uncanny valley and creepy treehouse concepts may help explain why certain organizational uses of Twitter such as posting nothing but positive press releases about a product or service are sometimes considered to be naïve—or worse, blatantly manipulative—and not in the “spirit” of the network as a whole.

Carpenter, Eliot, and Schultheis (2006) suggest using anthropologist Alan Fiske’s model of communal sharing as a potential way to mitigate the effect of the uncanny valley by setting expectations and boundaries for interaction:

The communal sharing relational model suggests that humans could be more comfortable in human-android interactions by developing a specific social category for androids that clearly delineates how to treat such humanlike creatures, which would include appropriate levels of expectation. As the level of anthropomorphism in androids increases and the urge to treat androids as members of the human race increases as well, humans will need to develop such social schemata for sustained interaction.

This call for appropriate social schemata to categorize humanlike creatures—paralleling the need for appropriate expectations for interaction with liminal entities such as organizational accounts, feeds, and bots on social network sites—echoes a similar call from Turkle, who concludes a chapter on the coexistence of humans and robots with the following question: “How does one treat machines that perform roles previously reserved for people, machines whose practical difference from people in these roles is becoming

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harder and harder to discern?” (1995, 88) Donath provides a potential answer at the end of her retelling of the Julia/Lara story:

It is worth noting that even after Lara realized Julia was a machine, she continued to talk with her, albeit with changed expectations. Although Lara knew that Julia was not a person but simply a set of instructions for maintaining a dialog, she continued to interact with Julia as if she were, if not a person, then at least a person-like being (p. 305).

Lara’s continuance of conversation with Julia exemplifies the aggregation stage following liminality: Once we have determined the social category for a novel entity, we can define the conditions under which we can interact with it.

The next section concerns how standards of behavior on social network sites are established, enforced, and adjusted.

**Governance: Rules and social norms**

“We see most urgent now is not whether to call these machines or programs intelligent, but how to determine what rules of conduct to follow with them.”

— Sherry Turkle

How is behavior constrained on social network sites? According to Lawrence Lessig, regulation in spaces consists of four possible constraints: the law, social norms, the market, and architecture (or code on the Internet). Here, we look primarily at social norms and secondarily at code as regulatory mechanisms on Twitter.

Social networks on Twitter are primarily regulated via social norms derived from an initial set of rules laid out by the coding authority. On Twitter, community—defined
by Lessig (2006) as “a set of norms that are self-enforcing by members of the community”—can be considered on two levels: local and global. Because Twitter is essentially a collection of many smaller social networks, an individual’s perception of community may be limited to his or her network or may extend to Twitter as a whole (e.g. considering oneself a “citizen” of Twitter). Lessig writes about how code affects community and how the resulting “thickness” of community predicts the appropriate regulatory mechanisms:

Differences in the code constitute [online communities] differently, but some code makes community thicker than others. Where community is thick, norms can regulate … Features such as visibility (as opposed to anonymity) and nontransience help create those norms; anonymity, transience, and diversity make it harder to create community. In places where community is not fully self-enforcing, norms are supplemented by rules imposed either through code or by the relevant sovereign. These supplements may further some normative end, but at times they can be in tension with the goal of community building. (106, 113)

Because Twitter functions well as a presence tool, many social networks on Twitter possess Lessig’s concept of “thick” community and therefore can regulate via social norms. As organizations populate Twitter with different types of accounts including automated feeds and one-sided personas focusing on marketing and public relations, will social norms alone continue to bind Twitter networks, or will they be supplemented by “rules imposed either through code or by the relevant sovereign”?

Despite a relatively hands-off approach to constraining usage of its service—for example, the company states that “Twitter is what you make of it” in its About section—Twitter does codify and enforce rules to supplement social norms. In its terms of service,
Twitter lists the following behavior among others as cause for account investigation/suspension: “aggressive following (a large number of people are followed in a short amount of time),” “extremely imbalanced follower/following ratio,” “updates consist of duplicate or repeating links and/or text,” and “updates consist mainly of links and not personal updates.” Here, Twitter explicitly defines what it considers to be “suspicious behavior”; however, these criteria do not necessarily eliminate organizations or other non-individual accounts like bots. Instead, Twitter attempts to frame inappropriate use from the perspective of the user: “Commercial or promotional use of Twitter is allowed, and we do welcome feed-based accounts. Many companies create valuable, opt-in relationships with people on Twitter. It’s important to us, however, that the Twitter community receives only the content they’d like to receive.” (crystal)

**The city and the virtual world: SNSs as complex systems**

The literature concerning complex systems and emergent behavior constitutes another perspective that contributes to an understanding of Twitter and other SNSs. Axelrod and Cohen (2000) defines agents as an entity that “has the ability to interact with its environment” and a complex adaptive system as one that “contains agents or populations that seeks to adapt” (Axelrod 4-8). They note that agents within such a system continually affect and are affected by the environment of the system:

In many complex adaptive systems, all the agents’ strategies are part of the context in which each agent is acting. This makes it hard for an agent to predict the consequences of its actions and
therefore to choose the best course of action. Even more subtle is the point that as agents adapt to
their experience by revising their strategies, they are constantly changing the context in which the
next change will be tried and evaluated (Axelrod & Cohen 7-8).

Axelrod and Cohen’s description of how agents and their environment act upon each
other in complex adaptive systems mirrors Giddens’ (1984) concept of the duality of
structure, where “the structural properties of social systems are both medium and
outcome of the practices they recursively organize” (Giddens 25). Poole and DeSanctis
(1990) paraphrase Giddens’ definitions of system and structures thusly: “A system is a
social entity such as a group, pursuing various practices that give rise to observable
patterns of relations, such as the pecking order often seen in groups or organizations.
Structures are the rules and resources that actors use to generate and sustain this
system” (p. 179).

An example of a complex adaptive system is the city as described by Jane Jacobs
in The Death and Life of Great American Cities. Jacobs (1961) discusses the problem of
privacy in cities:

The privacy of keeping one’s personal affairs to those selected to know them, and the privacy of
having reasonable control over who shall make inroads on your time and when, are rare
commodities in most of this world ... A good city street neighborhood achieves a marvel of
balance between its people’s determination to have essential privacy and their simultaneous wishes
for differing degrees of contact, enjoyment or help from the people around. This balance is largely
made up of small, sensitively managed details, practiced and accepted so casually that they are
normally taken for granted (Jacobs 59).

Johnson (2001) uses Jacobs’ conception of the street as the locus of activity to
describe how actions at the local level affected the city as a whole. He also notes Jacobs’
distaste for policies that removed people from city streets, effectively removing complexity from the system:

Jacobs fought so passionately against urban planning that got people "off the streets" because she recognized that both the order and the vitality of working cities came from the loose, improvised assemblages of individuals who inhabited those streets. Cities, Jacobs understood, were created not by central planning commissions, but by the low-level actions of borderline strangers going about their business in public life (p. 92).

Johnson goes on to write: “The value of the exchange between strangers lies in what it does for the superorganism of the city, not in what it does for the strangers themselves” (p. 96). Similarly, the interactions in local networks on Twitter bubble up to create effects on the global scale of Twitter. This is an example of emergence, which Johnson defines as “the movement from low-level rules to higher-level sophistication” (p. 18).

Virtual worlds also provide good examples of how emergence occurs in complex systems. Castronova (2006) discusses the constant negotiation of rules in virtual worlds—in this case, massively multiplayer online role-playing games (MMORPGs) such as World of Warcraft and Everquest:

Patterns of behavior are emergent. The rules of the game today evolved from some prior set of rules, which dictated not only play but meta-play, the play of the game that’s intended to change what the rules are … The actual and maddening fluidity of rules has become part of the daily life of those who design and operate synthetic worlds. Every rule they declare, even ones they code into the world as part of its physics, induces reactions by the user community that may subvert or amplify the rule’s effect. Designers and the user community are in an endless tug of war about what the rules actually are. (Castronova 101)
The value judgments made by a coding authority in crafting the architecture of their network in a particular way trickles down to the norms enforced in the communities contained therein. Similarly, emerging social norms that catch the attention of the coding authority may become codified as rules. These two processes operate on a continual basis and shape the social world of Twitter—particularly because the coding authority behind Twitter seems relatively content to allow patterns of use to emerge from the community rather than overtly introducing officially sanctioned uses via code. Other SNSs, however, have not always tolerated emergent uses of their network; in those cases, the methods used by the coding authority and the community are more forceful and Castronova’s “endless tug of war” is more visible. The next section looks at one such example on Friendster, an early SNS.

**Cheating, deception, and trangressive play**

While defining structures as rules and resources, Giddens (1984) attempts to distinguish rules as defined in social systems from rules in games:

Rules are often thought of in connection with games, as formalized prescriptions. The rules implicated in the reproduction of social systems are not generally like this. Even those which are codified as laws are characteristically subject to a far greater diversity of contestations than the rules of games (p. 17-18).

In practice, however, rules—both “formalized prescriptions” and Giddens’ less rigid definition of rules in social systems—are frequently contested in today’s online games.
Consalvo (2007) extends Lessig’s concept of code and social norms as mechanisms of regulation to games. Consalvo introduces the concepts of hard rules and soft rules, which roughly map to codified rules and social norms, respectively:

Even as digital games can code in rules for players to follow, there are also “soft rules” that are negotiated. Those rules can be broken more easily than the game code or “hard rules,” but to many players they are still important in understanding the bounds of acceptable gameplay and how far one can push those boundaries before an accusation of cheating is made (p. 87).

On Friendster—one of the first social network sites—the existence of Fakesters (defined by boyd (2004) as “cultural characters that represent shared reference points with which people might connect, community characters that represent external collections of people to help congregate known groups, or passing characters meant to be perceived as real”) distorted the original intentions of Jonathan Abrams, Friendster’s creator. In an interview, Abrams argued that presence of Fakesters went against his purpose for the community:

“Fake profiles really defeats the whole point of Friendster,” says [Abrams] … “Some people find it amusing, but some find it annoying. And it doesn’t really serve a legitimate purpose. The whole point of Friendster is to see how you’re connected to people through your friends,” he says. (Mieszkowski)

Here we see Castronova’s point about emergent patterns of behavior. boyd writes that “people be-Friend⁵ [Fakesters] when they appreciate what is represented, value the creativity, or seek to expand their network.” This is a mismatch between the intentions of the coding authority and the intentions of the Friendster population. Fakesters can be

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⁵ boyd draws a distinction between “befriending” and “be-Friending”—the latter being distinct from the former as the modified action carried out on social network sites.
considered liminal entities—at least in the eyes of the coding authority on Friendster, which sought to prevent them from acquiring legitimacy. Conversely, it can be argued that Fakesters passed from the liminal stage to the aggregation stage in the eyes of Friendster users.

Lastowka (2003) examines the relationship between governance and Fakesters in the context of virtual worlds: “Map Friendster/Fakesters onto virtual worlds, and you'll find the Fakesters get the benefit of the default rule in MMORPGs. The norm in Everquest and The Sims Online is that avatars are not expected to be identifiable as their [real-life] controllers—you should be someone else.” Marwick (2005) calls the expectation that avatars will be identifiable as their real-life controllers “fixity of profiles.” On Twitter, fixity of profiles is not necessarily assumed, especially in comparison to heavily interpersonal SNSs such as Facebook.

Sustaining community

As Twitter grows, the potential for malicious behavior disruptive to individuals’ usage of the network also increases. As boyd (2007) writes: “There are few consequences for negative behaviors, but they generate a whole lot of attention.”

Will Twitter scale, socially speaking, to accommodate the large number of users that have signed up for the service in the past few months? Shirky makes a key point about how success in the form of greater access yields good and bad entities in his discussion about self-help groups forming on Meetup.com:
“Falling transaction costs benefit all groups, not just groups we happen to approve of … When it is hard to form groups, both potentially good and bad groups are prevented from forming; when it becomes simple to form groups, we get both the good and bad ones. This is going to force society to shift from simply preventing groups from forming to actively deciding which existing ones to try to oppose.” (208, 211)

Although Twitter has seen an increase in organizations establishing presence on the network, it has also seen an uptick in spam accounts. Currently, the signal-to-noise ratio on Twitter is quite high—substantially higher than email, which is generally more vulnerable to spam—and users benefit as a result. Given that this high signal-to-noise ratio seems to be one of the main reasons for Twitter’s current popularity, what will happen if the noise increases significantly? It remains to be seen if the current norms-based system of Twitter is truly flexible enough to resist a shift to code-based regulation in this scenario.
Chapter 4: Why individuals use Twitter

This chapter seeks to provide a snapshot of individual Twitter usage obtained through a survey of users. First, I discuss the shift from interpersonal usage to utility-based usage of Twitter and how this shift was enabled by changes in the code/architecture of the site. I then analyze the results of this survey for insights into the gratifications sought by individual users and discuss how organizational accounts are generally viewed through the lens of utility on Twitter.

History of usage: From interpersonal to utility-based

Twitter launched internally in March 2006 and opened to the public in August of that year. Sagolla (2009), a former Twitter employee, identifies three “boom” events that vastly increased traffic on the network: (a) the 2007 South by Southwest (SXSW) interactive festival, where Twitter was used heavily by a large group of conference attendees; (b) the MTV Music Awards; and (c) “[an Apple developer conference], and then TV, and then print and pretty soon cable news.” Sagolla recounts the scene from the first “boom” at SXSW:

Just in time for [the South by Southwest interactive festival], @RayReadyRay rigged a very sweet Flash-based visualizer that ended up on display in the halls of the conference ... Everything miraculously fell into place by the time people filtered out of the sessions to see their comments floating along the hallway screens.
This particular usage of Twitter showed the utility of the service where sufficient density (in terms of people with mobile phones) around an event existed—anticipating future increases in network traffic surrounding major events. For example, the real-time visualization of conference tweets was later echoed by a website set up by Twitter that featured live streams of election-related tweets in 2008. At SXSW, Twitter also was used to coordinate groups of people in physical space (e.g. announce parties or informal gatherings).

Twitter continued to grow as new groups of people discovered the service after each “boom.” By February 2009, a traffic analysis service ranked Twitter as the third largest social network site behind Facebook and MySpace. Initially, Twitter met with a sizable amount of bewilderment and even disapproval from the mainstream media. For example, an MSNBC contributor wrote the following diatribe against always-on status updates in an article entitled “Twitter Nation: Nobody cares what you’re doing”:

Why do we think we’re so important that we believe other people want to know about what we’re having for lunch, how bored we are at work or the state of inebriation we happen to be in at this very moment in time? How did society get to the point that we are constantly improving technology so that this non-news can reach others even faster than a cell phone, a text message, a blog, our Facebook profiles?

In an article in *The New York Times*, the author talks to Walter J. Carl about why her daughters shunned Twitter when she tried to introduce them to the service:

One of the main reasons people embrace social media—Facebook, for instance—is to create identities for themselves and control other people’s perceptions of them. “Maybe Twitter isn’t the right tool for that job,” [Walter J. Carl] said. “The people who I see using [Twitter] are an older
A study conducted by the Pew Internet and American Life Project (2009) offers some support for the older demographic suggested by Carl. According to the Pew study, the average age of Twitter users is 31, compared to 27 for MySpace, 26 for Facebook, and 40 for LinkedIn.

Usage of Twitter shifted significantly after the first year or so of its existence. In addition to using the network for interpersonal communication, Twitter users increasingly became focused on obtaining utility from the accounts they followed. In a way, Twitter began to serve as a clearinghouse for useful, informal information obtained via updates. As Morville (2005) points out:

Despite huge investments in information and communication technology, we still rely heavily on informal person-to-person networks known as “the grapevine.” And we often trust this “unofficial news” more than the “official story.” Of course, we’ve co-opted the technology infrastructure, extending the locus of gossip from the water cooler to cyberspace—email, instant messaging, cell phones, text messaging, listservs, weblogs—at the heart of many of today’s killer applications lies the power and prevalence of gossip.

The new focus on useful information quickly differentiated Twitter from other SNSs. Instead of simply replicating status updates on Facebook, Twitter updates were used for new uses such as polling personal networks for information and “re-tweeting” interesting information posted by other accounts; additionally, Twitter saw an increase in organizational accounts publishing automated feeds of content and offering a more
immediate form of customer support than previously available through traditional means (e.g. phone, email).

More recently, celebrities—including politicians and athletes—have started using the service in earnest. Some of these accounts were set up to counteract existing “fake” accounts. For instance, Shaquille O’Neal created an account (“The_Real_Shaq”) on Twitter to reclaim his identity from an imposter, an account named “ShaquilleONeal.” The original account was deleted by Twitter:

In response to [a complaint from the owner of a consulting firm that works with O’Neal], Twitter pulled the plug on ShaquilleONeal this week. [The complainant] said she wanted to protect the O’Neal brand. A Twitter spokesman said that impersonating people violates the company’s terms of service. “We do allow parody,” said Biz Stone, a Twitter co-founder. “If it’s not clear and there is some confusion, we do get involved.” Stone said this was the first instance of celebrity impersonation that he knew of. Twitter is considering ways to certify accounts, so fans know when they are hearing from, say, the real Britney Spears (who does, in fact, tweet).

The most popular of these accounts garner massive numbers of followers. Interestingly, several of these accounts do not follow back although they are undoubtedly aware of their sizable audience, possibly reflecting less of an interest in connecting with others than an interest in broadcasting a personality and maintaining a role as the subject of conversation.

Uses and gratifications theory

This theory deals with how people fulfill gratifications through media choice. Uses and gratifications theory presupposes an active audience in contrast to earlier
theories of media usage that characterized audiences as passive receptors of media.

McQuail (1983) outlines the following gratification categories for his typology of media uses: (a) information, (b) personal identity, (c) integration and social interaction, and (d) entertainment. All these categories can be seen in individuals’ usage of Twitter; consequently, these categories are used as the starting point for assembling a Twitter typology.

**Method**

An online survey was devised to gain insight into individuals’ uses of Twitter. This survey targeted experienced users of Twitter and was distributed to users via a public message sent to the author’s followers containing an invitation along with a link to the survey. Multiple individuals then “re-tweeted” the invitation and link to the survey to their network of followers, increasing the amount of people exposed to the study. In all, 159 respondents started the survey, with 122 (a 76.7% completion rate) finishing the survey. The survey was available starting on Saturday, March 8, 2009 and was closed to further responses on the following Saturday.

Four groups of questions were presented to respondents: (1) questions about their activity/usage of Twitter; (2) questions about the management of connections and the criteria respondents use to follow/unfollow an account; (3) questions about the types of
accounts respondents follow and their attitudes towards these accounts; (4) questions about transgressions of rules/norms and ambiguous identities.

Question 6 (“Rate the importance of the following uses of Twitter to you”) uses a proposed typology of uses based on McQuail’s typology of media gratifications and modified for Twitter. Additionally, question 11 (“Rate the following criteria you might use to block or stop following an account”) is based on criteria taken from Twitter’s terms of service.

The following hypotheses were tested in order to see if there was a difference of perception of organizations between new vs. established users and frequent vs. infrequent users:

\[ H_1 \]
Users who have used Twitter for more than one year will perceive organizations differently than users who have joined Twitter more recently.

\[ H_2 \]
Users who use Twitter infrequently will perceive organizations differently than users who use Twitter frequently.

Analysis of variance was conducted to test the two hypotheses. For the first hypothesis, the dependent variable was a score computed from the results for Q12: “What is your general feeling towards each type of [organizational] account—strongly negative, negative, neither negative nor positive, positive, or strongly positive?” while the independent variable was Q1: “How long have you had an account on Twitter?” The
dependent variable from the first hypothesis was also the dependent variable for the second hypothesis, while the independent variable for the second hypothesis was Q3: “How often do you check Twitter for updates from your contacts?”

**Findings**

The following survey results and findings are organized according to the aforementioned four groups of questions asked.

**Activity**

Q3 (“How often do you check Twitter for updates from your contacts?”) and Q4 (“How often do you post Twitter updates?”) dealt with frequency of usage. Respondents were heavy users of Twitter, with 97.1 percent checking Twitter for updates from their contacts at least once per day and 90.1 percent posting updates to Twitter at least once per day. Additionally, Q5 asked whether respondents protected their updates (i.e. limit the visibility of their updates to their contacts). Only 10.5 percent of respondents protected their updates; 82.5 percent of respondents kept their updates publicly viewable—the default setting on Twitter.

Respondents also displayed a prolific number of Twitter connections as shown in Q7 (“About how many accounts do you follow on Twitter?”) and Q8 (“How many followers do you have on Twitter?”); 71.6 percent of users followed more than 50 accounts, while 67.9 percent of users had more than 50 followers.
Uses of Twitter

Q6 (“Now think about why you use Twitter. Rate the importance of the following uses of Twitter to you”) asked respondents to rate uses on a scale of importance. The two most commonly cited uses of Twitter (see Figure 4.1) were “learn new things” and “associate with individuals and organizations I admire,” both cited as important or somewhat important by about 80 percent of respondents; “join/display my membership in a group” and “fill time” were the uses least commonly rated important or somewhat important (11.1 and 20.5 percent of respondents, respectively).

Figure 4.1: Percentage of respondents citing a particular use of Twitter.

1 The pool of uses is drawn from a slightly modified version of McQuail’s (1983) typology of media gratifications.
Making and breaking connections

Questions Q10 ("Rate the following criteria you might use to decide whether to follow a Twitter account") and Q11 ("Rate the following criteria you might use to block or stop following an account") attempted to gain insight into how individuals use available cues to assess identity during the process of articulating their social connections on Twitter.

The three criteria most commonly cited as important or somewhat important for deciding to follow an account were usefulness of updates (76.2 percent), frequency of updates (61.5 percent; although this could be either a negative or a positive factor), and update history (59.7 percent). Conversely, the three criteria most commonly cited as unimportant or somewhat unimportant were avatar image (54.7 percent), use of Twitter-specific conventions and language (43.8 percent), number of accounts followed (41.5 percent), and number of followers (40.3 percent).

The two criteria used to block or stop following an account that respondents most commonly agreed or strongly agreed with were “posts links to advertising” (91.2 percent) and “posts duplicate/repetitive updates” (85.4 percent). Conversely, respondents disagreed or strongly disagreed (69.2 percent) with using “uses an unfamiliar avatar image” as a criterion, possibly reflecting the relative inability to tie a Twitter avatar image back to real-life identity—or a lack of interest in doing so. Equivocal responses—those

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2 These criteria were based on Twitter’s terms of service, where several reasons for account suspension by the coding authority were cited.
marked neither agree nor disagree—were most often recorded for “usually posts links rather than personal updates” (36.7 percent); this may indicate that Twitter is used to post/read both personal information and links (generally relevant to the poster’s network of followers).

**Attitudes towards organizational accounts**

Q13, Q14, and Q15 dealt with how respondents conceived of and dealt with organizational accounts. In Q13 and Q14, accounts were segmented into several types: (1) organizations whose updates primarily consist of links to news/press releases; (2) individuals associated with an organization who post mainly professional updates; (3) individuals associated with an organization who post mainly personal updates; (4) individuals who primarily post personal updates; (5) bots that respond with useful information when prompted; and (6) bots that have no particular purpose aside from entertainment. The first four types can be considered a continuum stretching from a purely organizational account to a purely individual account, while the last two types attempted to gain insight into the informational vs. play uses of Twitter. Q15 asked which types of organizations respondents followed.

Respondents were asked to rate their general feeling towards different types of accounts using a Likert scale (1=strongly negative; 5=strongly positive). Personal accounts were rated highest (mean of 3.98), with individuals associated with an organization (combined mean of 3.80) close behind. Interestingly, not much difference
was observed between organization-associated individual accounts that post primarily professional updates vs. organization-associated individual accounts that post primarily personal updates (means of 3.79 and 3.81, respectively). This finding suggests that users are not perturbed by accounts such as TheFix (described in the first chapter)—the account of Chris Cillizza, a political columnist that frequently mixes personal updates with political commentary.

An analysis of variance test was also conducted. The dependent variable was Q14 ("What is your general feeling towards each type of account?"), while the independent variable was the length of time an individual had been on Twitter. The test showed only two conditions approaching significance: (a) Organizations whose updates primarily consist of links to news/press releases: $F(4, 143) = 1.615, p = .174$; and (b) individuals associated with an organization who post more personal updates than professional accounts: $F(4, 144) = 2.622, p = .037$. In both cases, however, the $p$-value was insufficient to reject the null hypothesis at an acceptable level given the number of comparisons.

**Reaction to transgressions**

Q17, Q18, Q19, and Q20 ask about incidents where (a) respondents noticed out-of-character behavior and (b) respondents could not definitively identify whether an organizational account was controlled by a human or a bot. These questions attempt to gather data about transgressive acts that serve as reifying moments for social norms and
rules. Relatively few respondents chose to fill out these questions; this might indicate that the wording of the questions may have been too complex to accurately convey the requested situation to the respondent. Consequently, publicly available analyses of exchanges between individuals and ambiguous entities were examined to better understand this problem.

Despite the relative dearth of responses to these questions, a few insights can still be obtained from the survey responses. The first insight concerns respondents’ ability to coexist with ambiguous entities. One respondent to Q17 wrote that they “[did not] have a problem with [out-of-character behavior from an organizational account] as long as it’s not pretending to be a personal account.” Similarly, a respondent to Q19 wrote: “I believe most of the [organizational] accounts I follow are administered by people but maybe that’s naive. BBC News probably isn’t, for example, but I don’t really mind.” Several respondents also wrote that they would predicate any action towards an ambiguous account on whether the account in question was useful. For instance, one respondent wrote that action “depends on the content of the specific feed. If it’s interesting, I’ll continue to follow. If it befuddles me, I may unfollow/block. I’m unlikely to take any action beyond that unless the content of the feed becomes obnoxious, offensive or abusive.” This sort of response suggests a certain tolerance for not knowing the mind(s) behind an account—as long as the account (a) serves a purpose and (b) does not raise suspicion of actively deceiving other users.
The second insight from the survey responses involves users’ reaction to a revealing of the mechanisms behind an organizational account. A respondent to Q17 recounted the following incident:

I sat next to someone at a talk and found out she was one of many people who posted to an organizational account. As strange as this will sound, I felt a little bit duped and betrayed to find out the account had more than one participant. It doesn’t really make sense to me—the info is the same if it comes from one person or 100 people.

Here, the respondent seems to balance a sense of unease that a number of people—instead of a single person—updates an organizational account with a more “rational” sense of utility (e.g. “why does this matter as long as I am receiving useful information from this account?”). This response suggests that users may initially follow an organizational account for purposes of utility but may come to view said account as they might view an individual account. Some group accounts attempt to expose the different individuals that make up the account by posting a short indication of the person currently updating the account; for instance, the band Camera Obscura includes a single letter at the end of each update that represents the band member posting (e.g., an update with the letter ‘c’ at the end indicates that it was written by Carey).

Interestingly, very few respondents indicated in Q17 and Q19 that they would get others to stop following/block an account that was exhibiting inconsistent behavior or possessed an ambiguous identity. This might suggest that users recognize that each individual on Twitter has a different interpretation of the social norms; consequently,
deprecatory action taken towards an account is done on an individual basis rather than a collective basis.
Chapter 5: Conclusion

Twitter has succeeded where other social network sites have failed in part due to its dearth of formal constraints. Leaving the use of the network open to interpretation allowed Twitter to support a wide variety of uses, while the mechanisms used to punish transgressive behavior (namely blocking of offending accounts) have provided a reasonably stable environment for individuals and organizations to coexist. The relatively complex set of articulation and privacy controls available to users on Facebook has not appeared on Twitter, where the only way to articulate a connection to another user is to follow (or, conversely, to block) them. This rudimentary form of articulation does not allow users to describe their connections; however, this simplicity reflects Twitter’s stated goal of letting their users decide how to use the network. This approach allows social norms to regulate rather than relying on code to enforce norms as Facebook has increasingly done.

Further, Twitter users do not seem to have negative views of organizational accounts. This may have to do with the overriding focus on utility for experienced users; in other words, users are more forgiving of a wide variety of entities as long as those entities provide useful information. Again, the key seems to have been leaving the network open to interpretation: Because Twitter does not steer users towards a particular type of social interaction as Facebook does with its network, more uses of Twitter are available to users. Having a larger number of socially acceptable uses means that
individuals can obtain gratifications—including from organizational accounts—for a wider variety of needs than Facebook. These opportunities to fill individuals’ needs leads to greater potential for organizations on Twitter rather than on Facebook and other SNSs, where organizational accounts have often been subjugated to a “group” or a “page” rather than a full account.

Twitter faces the challenge of continuing to utilize social norms as the primary form of regulation while subtly using code to protect the network against increasing amounts of spam and collisions between individuals and other entities. As Twitter seeks to shift from building their network to monetizing their network, tension may increase between users who pay to gain privileges and users who do not. A “Twitter Premium” hoax story¹ that was widely circulated by Twitter users in March 2009 shows the desire of certain users—generally those seeking to use Twitter for marketing purposes—to have the option to purchase additional privileges and, conversely, the importance of maintaining a stable system where a degree of equality among accounts exists.

Opportunities for future research

The environment of Twitter continues to evolve as the demographics of the user population shifts. While this study described the shift from interpersonal use of Twitter to more utility-driven use, future studies might consider the longer-term impact of such a

shift—particularly in terms of new forms of regulation introduced by the coding authority. Other studies might look at how individuals segment and balance their use of social network sites (e.g. Facebook to maintain personal connections, LinkedIn to maintain professional connections, and Twitter for monitoring trends and polling one’s network).

Twitter’s focus is also shifting from simply building their network to monetizing their network. This shift undoubtedly holds far-reaching implications for individuals and organizations currently using Twitter, as it likely portends increased inputs into the system from the coding authority.
Appendix

A copy of the web-based survey distributed to Twitter users is reproduced here.

Respondents answered questions across four pages, and had to agree to the terms presented on the front page in order to proceed to the questions.

Introductory message shown to all respondents

This survey will ask you questions about your usage of Twitter and the types of accounts you follow. You are free to exit the survey at any time. In addition, your responses will remain anonymous and confidential. Answering these questions should take about 15-20 minutes.

Q1: How long have you had an account on Twitter?

- Less than a month
- A month to six months
- Six months to one year
- One year to two years
- Two years or more

Q2: How often do you check Twitter for updates from your contacts?

- Less than once a week
- About once a week
- About once a day
- Multiple times per day

Q3: How often do you post Twitter updates?

- Less than once a week
- About once a week
- About once a day
- Multiple times per day
Q4: Do you protect your Twitter updates?

- Yes
- No
- I’m not sure

Q5: Now think about why you use Twitter. Rate the importance of the following uses of Twitter to you. *Choices: Unimportant, somewhat unimportant, neither unimportant nor important, somewhat important, important.*

- Find out about news and events
- Seek advice/opinions
- Satisfy my curiosity
- Learn new things
- Seek out like-minded individuals and organizations
- Associate with individuals and organizations I admire
- Join/display my membership in a group
- Have a conversation
- Make new friends
- Connect to family and friends
- Fill time
- Humor
- Follow someone else’s life

Q6: About how many accounts do you follow on Twitter?

- Less than 5
- Between 5 and 15
- Between 15 and 50
- Between 50 and 100
- Between 100 and 200
- More than 200

Q7: How many followers do you have on Twitter?

- Less than 5
- Between 5 and 15
- Between 15 and 50
- Between 50 and 100
• Between 100 and 200
• More than 200

Q8: Have you ever “pruned” (selectively reduced) your list of followers?

• Yes, on a regular basis
• Yes, infrequently
• No
• I’m not sure

Q9: Rate the following criteria you might use to decide whether to follow a Twitter account. *Choices: Very unimportant, unimportant, neither important nor unimportant, important, very important.*

• Avatar image
• Supplied website address
• Update history
• Number of followers
• Identity of followers
• Number of accounts followed
• Identity of accounts followed
• Frequency of updates
• Use of Twitter-specific conventions in updates (e.g. use of “RT” for retweets, URL-shortening services like is.gd or tinyurl)
• Humor used in updates/profile description
• Usefulness of updates

Q10: Rate the following criteria you might use to block or stop following an account. *Choices: Strongly disagree, disagree, neither agree or disagree, agree, strongly agree.*

• Rarely or never updates
• Updates too frequently
• Posts links to advertising
• Posts duplicate/repetitive updates
• Follows an excessively large number of accounts
• Extremely imbalanced follower/following ratio
• Usually posts links rather than personal updates
• Uses an unfamiliar avatar image
• Updates consist of an automated feed from a website
• Automatically responds whenever a certain word or phrase is used on Twitter
• Very little or no profile information

Q11: Indicate which types of accounts you follow. (Check all that apply.)

• Organizations whose updates primarily consist of links to news/press releases
• Individuals associated with an organization who post more professional updates than personal updates
• Individuals associated with an organization who post more personal updates than professional updates
• Individuals who primarily post personal updates
• Bots that respond with useful information when prompted
• Bots that have no particular purpose aside from entertainment
• Other (please specify)

Q12: Now, think about the types of accounts listed above. What is your general feeling towards each type of account? Choices: Strongly negative, negative, neither negative nor positive, positive, strongly positive.

• Organizations whose updates primarily consist of links to news/press releases
• Individuals associated with an organization who post more professional updates than personal updates
• Individuals associated with an organization who post more personal updates than professional updates
• Individuals who primarily post personal updates
• Bots that respond with useful information when prompted
• Bots that have no particular purpose aside from entertainment

Q13: Rate your impression of these types of accounts. Are they impersonal or personal?

• Organizations whose updates primarily consist of links to news/press releases
• Individuals associated with an organization who post more professional updates than personal updates
• Individuals associated with an organization who post more personal updates than professional updates
• Individuals who primarily post personal updates
• Bots that respond with useful information when prompted
• Bots that have no particular purpose aside from entertainment
Q14: Which of the following types of organizations do you follow? (Check all that apply.)

- Media organization (newspaper, TV/radio station)
- Government agency (local, state, or federal)
- Elected official (e.g. U.S. Senator)
- Customer service for a company
- CEO blogging about his/her company
- News releases from an organization
- Product announcements
- I don’t follow any organizations
- Other (please specify)

Q15: Have you ever seen a third-party advertisement (for a product unrelated to that organization) posted to an organizational account?

- Yes
- No
- I’m not sure

Q16: Have you ever observed inconsistent or “out-of-character” behavior (e.g. seeing a post about an inappropriate topic or realizing that multiple people post to a single account) with an organizational account (an individual affiliated with an organization or an account that represents an organization) you were following? If so, briefly describe the event.

Q17: If you encountered inconsistent or “out-of-character” behavior from an account you followed, which of the following actions would you take? (Check all that apply.)

- Talk to the account in question about their behavior
- Ask your followers about the account in question
- Stop following the account in question
- Block the account in question
- Get others to stop following/block the account in question
- Report the account in question to Twitter support
- Other (please specify)
Q18: Have you ever been unable to determine if an organizational account was controlled by a human or a bot (automated updates)? If so, briefly describe what led you to question the identity of this account.

Q19: If you were unable to determine if an account you followed was controlled by a human or a bot, which of the following actions would you take? (Check all that apply.)

- Ask the account about their identity (human or bot)
- Ask your followers about the account in question
- Stop following the account in question
- Block the account in question
- Get others to stop following/block the account in question
- Report the account in question to Twitter support
- Other (please specify)
References


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