

Twitter Implications:

Twitter used to be my boyfriend

Abstract

Important possibilities in Twitter are being reflected in the variety of platforms, websites, devices and applications that can generate messages that are being sent to Twitter itself and then simultaneously and in real-time being distributed to several (other) websites, devices and programs. Why is there such a growth in external applications? This research provides a brief overview of applications and the use of spam and linguistics within Twitter, and gives insight in the value Twitter has in today's perceiving of world news. The features Twitter offers and the uses of the RSS feeds have many possibilities and implications. What are its relations to previous technologies and what are its uses? Could Twitter be a remediation of older technologies or do we need new concepts?

Key words

Microblogging, tweets, spam, linguistics, privacy, surveillance

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INTRODUCTION	3
My Research	4
How does Twitter work?	6
Posting onto Twitter	7
1. APPLICATIONS	9
1.1 One-way Applications	11
1.2 Two-way Applications	12
1.3 Tweetdeck	12
1.4 Pictures on Twitter	13
1.5 RSS Feeds	14
1.6 Useless but Funny Twitter Ratings	15
1.7 The Importance of a Backup	16
1.8 Searching on Twitter	17
1.9 Concluding	17
2. FOLLOWING	18
2.1 Behaviour – follow and connect	19
2.2 Spam and Fake Accounts	21
2.3 Netiquette and Privacy	23
2.4 Knowing your Followers	26
2.5 Bio Experiment	28
2.6 Twitter as a Source of News	28
3. EXPERIENCES	30
3.1 Privacy	31
3.2 More Meetings	34
3.3 Classifying my postings	36
3.4 Secrets and Lies	36
4. LINGUISTICS	38
4.1 Playing with Words	39
4.2 Data Visualization	41
4.3 Interactivity	43
4.4 Freedom to Tweet	45
4.5 140 Characters	45
4.6 Concluding	46
CONCLUSION	47
BIBLIOGRAPHY	51
Websites	55

Introduction

The most commonly heard prejudice about Twitter is that users continuously write about what they are doing and *tweets* are nonsense, why would anyone care what any other user is doing? The truth is, users write about much more than what they are literally doing, they have conversations or practice art. Besides the content of tweets there is a social importance in collections of tweets, together they have a meaning which together with the simplicity of Twitter gives this medium a special place within other social media. The usefulness or possibilities in Twitter stems from the variety of platforms, websites, devices and programs that generate messages that are being sent to Twitter itself and then simultaneously and in real-time distributed to several (other) websites, devices and programs. Basically Twitter is a microblogging platform and routing service and a powerful communication tool that links together these platforms. Only people who follow you can read what you have to say, so in fact tweets are only read very selectively, especially with applications like *TweetDeck* or *Twalala*, both using a filtering mechanism against unwanted noise.

There is no easy or clear answer to the question ‘what is Twitter?’, as the service itself appears to be very simple, but becomes completely intertwined with other platforms. Users can create a profile within two minutes and start shouting something (tweet) with a maximum of 140 characters (including spaces), like in an SMS. You can easily ‘follow’ friends or other users and people can follow you if they are interested in what you have to say. But the features this service offers and the uses of the RSS feeds have many possibilities and implications, not just in the way people interact socially but as a new way of communicating and keeping in touch with each other and the world. Twitter has a lower threshold to connect to other people, compared to other social media. Because all messages consist of 140 characters or less, updates are received and read quickly, almost instantaneous. On the Twitter website users can choose who they want to read the updates from and follow them. These messages could be about what people are doing, about having coffee, food, or walking the dog, for example. People tweet about what they are doing at home, on their way to work, or already at work or school or during shopping. People ‘tweet’ what they think or care about. The possibilities are endless. These everyday actions

forge “connections between individuals who are physically remote from each other”.¹ These messages may look very basic but it is a way to keep track of small updates on your friends and colleagues and have an ambient awareness of them. The cross platform aspect of Twitter is useful when someone is posting a notification of a blog and there is a choice to respond either on Twitter or on the blog. The same goes for the user who posted this notification in the first place. He or she could reply either on Twitter, or somewhere else. Twitter becomes a place of information exchange and very valuable for different users, like a general router for online communication, or a hub around which other services are organized.

Besides updates on what users are doing or thinking, Twitter can be used to convey what people are reading, watching or listening to and is therefore interesting for third parties, like companies. This way, “Twitter is more and more becoming a key player in the attention economy, distributing comments about what its users are paying attention to, what they have opinions about, and what they have expertise in”.² So what are the emerging effects of Twitter's impact on the communication landscape and implications of these effects on Twitter? What does this service mean for communication between people, friends, colleagues and between people? Is Twitter just a way to stay in touch or to exchange thoughts or something different? Is Twitter a way to have a sense of what is happening and going on in life, with people around you and in the world? Where does Twitter fit in the web 2.0 landscape? It could be more than just microblogging or maybe it is all about microblogging. As Tim O’Reilly says, the general public may not have faith in a new service at first and has to get used to it. Twitter could be part of the heart of Web 2.0. New uses are inevitable.

My Research

My research seeks to understand what Twitter is, to explore its relations to older technologies and its uses. No one is exactly sure what Twitter is and what it can do, during my research a lot has happened on Twitter and because of Twitter in the world.

¹ Crawford 2008: 250.

² Milstein 2008: 3.

To what extent is Twitter a *remediation* of older technologies (does this new medium, in its novel period incorporate or adapt previously existing media)?³

The huge number of external applications impressed me and I wanted to know why there are so many of them. Therefore I decided to do a participatory observation by using some of these applications and blogging about them. These blogs can be found on the domain I registered for this research; *twesis.info*. *Twesis* is a linguistic blend of the words ‘Twitter’ and ‘thesis’. The connection between Twitter and these applications are part of a convergence culture, as Henry Jenkins would put it, there is a “flow of content across multiple media platforms, the cooperation between multiple media industries, and the migratory behavior of media audiences”.⁴

Another aspect I am interested in is spam on Twitter, or its misuse. Indeed each new tool or communications technology seems to invite criminal behaviour and privacy issues. Because the basis of Twitter is to follow and to be followed, the issue of privacy is implicitly raised and my research examines how Twitter and surveillance are intertwined. Due to the limitation of 140 characters users are obligated to formulate their ideas or thoughts very briefly and thus use language in a different manner. They could use aphorisms, epigrams, or quotes. Following William Burrough’s notion that “all writing is in fact cut ups”⁵, tweets are cut-ups of lives of individuals. Besides language, users came up with features to escape the limitation of 140 characters and I shall formulate an overview of those.

Twitter reminds me of notes on a fridge door but then publicly displayed for all to see (although one can have a private account). Is this phenomenon of following, a remediation of glancing at other peoples fridge or kitchen table? Could I compare it to some kind of bulletin board in a public place like a supermarket or market square? Like early cinema was based on existing theatrical conventions and computer games remediate cinema, or the website remediates the magazine. The term remediation was originally coined by Marshall McLuhan but more recently applied by Bolter and Grusin. The same cannot be applied to Twitter, which cannot be compared to a simple text message like an SMS, or written notes left around. This service can be transferred to blogs and RSS feeds and ‘hashtags’ make it possible to specify these RSS feeds and thus create groups. Corporations are starting to discover the service’s ability to

³ Lister, Martin. *New Media: A Critical Introduction*. 2003: 390.

⁴ Jenkins, Henry. *Convergence Culture*. 2006: 2.

⁵ Burroughs 2003: 90.

facilitate business communications and others use it for small updates to their website newspapers or blogs. If there is no previous medium for Twitter, does the term remediation fit? Does another theory apply, or perhaps a metaphor? I like the metaphor user @artonice mentioned when he imagined heads popping out of nowhere shouting tweets. What would happen if my Apple computer could read tweets out loud or a user reads the tweets to the computer and it will post everything onto the web? There are probably applications which can read tweets out loud, and some people on television have already done projects based on Twitter by shouting tweets through a megaphone.

Though Twitter is not an old service, the practice of microblogging is much older than Internet itself. I already mentioned briefly the notes or yellow post-it on the fridge or kitchen table, left by a friend, lover, roommate or relative. Before this, people were sending messages through Morse code or on a piece of paper written in ink and on Twitter there is a possibility to tweet in Morse.⁶ But these all miss the advantages of features and interactivity. These are what make Twitter different.

How does Twitter work?

Twitter is not just a tool for microblogging. There are many external websites now who offer users to tweet at their website or offer software to tweet more easily. For example one can tweet through one's mobile telephone. There may be some disadvantages, as 140 characters is pretty short, but within this limit one can paste a url to a longer story, a picture or a video on YouTube. Twitter will shorten the url by using *Tinyurl*, although external applications use other services too to shorten urls. Tweets can also be viewed separately. In the States users can receive tweets as an SMS on their mobile phone but here in the Netherlands this service is not supported, due to receiving SMS for free, as opposed to the States where users have to pay for this.

One of the great powers behind Twitter are the different features the website provides and features other websites provide. The simplest feature is the RSS feed so one does not have to check Twitter but can read the feed or paste an RSS feed into a

⁶ <<http://www.morsetweet.com/>>

blog. The tweets can be displayed in more than one place, as for example tweets maybe simultaneously transferred to a blog and Facebook and Swurl, and there are many other places where an RSS feed might be implemented.

Another feature is the use of a *hashtag*, for example, the students of the Masters new Media use *#MofM* (short for Masters of Media) so they can keep up with each other. There are, however, endless possibilities, like the very popular *hashtag #haiku*. This last hashtag is so popular because the haiku is a very compact form of poetry and very suitable to fit within the limit of 140 characters. In September 2008, *#haiku* was high up the list of trending topics. In the chapter about linguistics there will be more consequences of the use of the haiku within Twitter. For a while there was a feature, *election08.twitter.com* that continuously showed thoughts on the elections of the new American president. If this could be displayed on a big screen it would almost be an art project but now it is a social experiment showing what is going on in the minds of people involved in the elections. Another interesting and popular hashtag was *#inaug09*, where users could follow the inauguration of Barack Obama. And in June, the hashtag *#IranElection* was immensely popular and provided more news than regular television stations. With this in mind, we are part of an “era of “now” media, fueled by new and social media and the people who power Twitter and other popular networks. The pursuit of “now” is conditioning us to expect information as it happens, whether it’s accurate or developing”.⁷ Is this particular feed more a news bulletin or an unorganised newspaper? Using the *@username* is great so one can send a message to a user but other people can read it, and as I wrote before I cannot delete messages other users write about me. People could even out other people through Twitter and thus force a coming out, or break up with someone.

Posting onto Twitter

There are a number of ways to post to Twitter, the most common is through the website and then you will see the source ‘from web’ behind the username. Another source is ‘from text’ if the user sends the tweet through SMS, and there are external websites or programs, like *Twitterrific* and *Twittelator*, that offer a service to tweet from their sites which then transfer them to Twitter. There are many widgets now for

⁷ <<http://www.techcrunch.com/2009/06/17/is-twitter-the-cnn-of-the-new-media-generation/>>

Twitter, which enable you to implement it into your own weblog or profile on a social network site. Twitter is not just a service where users can leave a short message but much more. Some say it is a lifestyle but for sure it caught us and we are being sucked into this vortex that is Twitter. Twitter executive Jack Dorsey argues that one-day Twitter will be as normal as electricity.⁸

One of the key points in Twitter is the rule which users are being forced to use, the 140 characters that is the maximum length of a tweet. The question comes up every now and then if this limit should expand and what would users do? Would they adapt or run? Is this system-imposed size limit a critical feature? One way to escape this rule is using Twitblog, which is basically tweeting a link to a blog. Another thing that differentiates Twitter from social network sites is the limit of characters for the description of the user, the limit of one url, no date of birth or gender information field and only one picture. The easy way to escape from this rule is to create a custom background for Twitter with either *TwitBacks* or *Adobe Photoshop*. This way a user can display additional pictures, write more background information about themselves or add contact information, as for example user @moriesbel does.

Twitter restricts its features so it does not become just another Hyves. It is very simple and because of that it is so popular. Clay Shirky argues that Twitter is a prime example of a ‘boring’ technology with only two features, which enabled it to quickly become socially interesting.⁹ Or like Anne Helmond says “does simplicity equal technologically boring or is technologically boring not thinking about the technique behind the tools anymore?”¹⁰ Twitter is simple and hence easily accessible. Twitter should not provide more space for extra information; there are other sites for this. Users create their own augmented space by adding information about them in their background image, thus escaping the limitations and standard settings of the system.

While looking at tweets for some months now I theorize that tweets contain encapsulated metadata. Inside the tweet there is already data about the time when it has been posted, information about the application with which it has been posted and from whom and maybe in reply to whom. Tweets usually show up in RSS feeds and thus can be displayed on other sites. I have done this with mine at my blog and

⁸ <http://news.cnet.com/8301-13577_3-10256113-36.html>

⁹ Shirky 2008: 105.

¹⁰ <<http://www.annehelmond.nl/2008/12/08/blogs-are-boring/>> (accessed December 16th, 2008)

Livejournal.com. On the first site all @replies are visible although I do not like that, on the latter these are not visible. The @replies are more personal although multiple users can read them, I do not think they belong in an overview of tweets. Also on Facebook only my pure tweets are showing, though 'retweets' do show up there and I delete them manually from my feed.

1. Applications

Almost every day Twitter users and people who are interested in the possibilities of the Twitter API create new applications while others create lists of these applications. Through these lists and by observing the different applications my friends tweet with, I discovered many applications. Because these lists are very large, I wondered why there are so many different applications in the first place and what they add to the website of Twitter? Are the programmers hoping for commercial success, perhaps through some advertising opportunities? Twitter itself is still not making any money as of the summer of 2009 and neither are most applications. The content of Twitter that had previously been carried by a single medium as their website may be distributed through several different media. What are the differences between these applications and are they useful? To find an answer to these questions I started using as many different applications as possible. Although there are hundreds, I only used a few and some of those only once or twice. Many programs that the people I follow use I could not try because of two reasons. The first reason is that my Apple Powerbook runs on Mac OSX 10.3.9 (Panther) and some applications require at least OSX 10.4.0 and I am unable to upgrade my Powerbook due to its age and an unknown error during upgrading. The other reason is that I used computers at work, running on Microsoft Windows XP, on which I did not have administrator rights. I also have a EEEpc running on Windows XP on which I could run some applications but only on a very small screen. On the last one I tried some applications that require Adobe Air.

Twitter applications come in three basic categories; there are one-way applications with which users can only read tweets (like Swurl) or only post tweets (like BigTweet). Then there are two-way applications to post and read tweets with

(like TitterFox) and finally there are applications with multiple functions (like TweetDeck). There are also some applications obviously built for fun and some of them are pretty useless, such as ranking systems. All applications argue that they are not associated with Twitter.com, but they all require a Twitter username and password to work.

Some applications also require a lot of personal information. I can update my status through the website of Twitter but also through sms or through Facebook. An application like Swurl lets me connect several websites where I have a profile. That allows everybody to have an overview of me without having to perform a websearch on my name first. Do I want to let people - even if they are friends and fellow students - spy on everything I do? Although I could easily deceive everyone by playing music without any sound on Last.fm and telling stories on Twitter that are a creation of my imagination. Most of my day I could watch and check people everywhere. Are these applicationd built for everybody spying on everybody by staring at their little screens? Perhaps there needs to be no Big Brother out there because we are all Big Brothers, or at least we could be.

The Twitter API allows users to create software to escape the rules that are imposed on them by the restrictions Twitter's website has. In other words, I like software that has some user interaction, where users have some kind of agency or control. Following Nicholas Negropontes notion that "this interest in participation follows from a general feeling that architecture, particularly housing, has been inadequate and unresponsive to the needs and desires of its users".¹¹ Negroponte may talk about housing, but the link to architecture can be applied to Twitter, where the architecture of Twitter does not account to the needs of its users and therefore external applications are needed. The trap with applications can be that we do away with one system, or a certain set of rules, and impose another on users, which is a criticism on Negroponte's ideas on computer architecture.

¹¹ Negroponte, Nicholas. 'From Soft Architecture Machines' in: Wardrip-Fruin, Nick Montfort. The New Media Reader. London: MIT Press, 2003: 355.
<http://www.manovich.net/vis242_winter_2006/New%20Media%20Reader%20all/23-negroponte-03.pdf>

1.1 One-way Applications

Bigtweet is an icon to be dragged to the toolbar of the browser.¹² When this icon is clicked on a pop-up appears in which a message can be typed and also special unicode characters can be used, like a simple smiley or music notes (♪). There is a button that lets you make a 280 character tweet but actually it will be split into two tweets.

Another one-way only interface is *Twitlet*, basically you can only tweet with it. However a user can include shortened urls through the use of the hashtag #link or #this.¹³ This application is comparable with BigTweet. Both interfaces can be used to empower users for specific needs. The great advantage of one-way posting is not being disturbed by updates from people I follow, so I can quickly update my Twitter status or say something, like I also can through sms.

Ubiquity is much more than one-way posting but the focus in this chapter lies on Twitter applications only and not on other functions than to read and write tweets. Ubiquity is an experimental Firefox extension with which a user is able to tell Firefox what he wants to do through typing commands into an input box.¹⁴ The user can update his Twitter status but not read updates from others, he could easily look up something on Google (maps), Wikipedia, Flickr, YouTube or translate a word or send an e-mail to someone. Posting a tweet in Ubiquity is very easy, just press CTRL+Space, in the pop-up you only need to type *tw* or *twi* and the text of the tweet and press enter. In the next pop-up just enter your username and password and hit enter again.

To cheat on Twitter and fool followers there is TwitterMail, this service lets you schedule your tweets so it looks like you can sleep and tweet at the same time.¹⁵ By signing up on the site you get a unique e-mail address you can use to e-mail your tweet. When you specify a time of the day then at this time the tweet will be posted.

¹² <<http://bigtweet.com/>> (accessed December 10, 2008)

¹³ <<http://www.twitlet.com/>> (accessed January 28, 2009)

¹⁴ <<http://labs.mozilla.com/projects/ubiquity/>> (accessed January 28, 2009)

¹⁵ <<http://www.twittermail.com/>> (accessed October 16, 2008)

1.2 Two-way Applications

MadTwitter (for Windows) has to be downloaded first and then looks like a very simple MSN Messenger although transparent and black.¹⁶ The flaws are there are no links in the tweets that can be clicked on and when typing a tweet it does not show that this tool has been used, it does not show its source. The application disappears in the *systray* when minimized.

TwitterFox is a small plug-in for Firefox which works with both Windows and Mac and checks new tweets, @replies and direct messages and generates a small pop-up in the right bottom of the screen.¹⁷ This pop-up does distract or interrupt and messages “can provide a moment of respite or amusement, or they can be an unwelcome disruption”.¹⁸ Crawford argues that messages like these can disrupt what you are doing and require more attention than they should. When the pop-up disappears a number appears next to the symbol ‘t’ that indicates the number of new tweets since the last check. When a friend replies on an earlier tweet you cannot see on what *tweet* they responded though, the program is very basic, and has three tabs to keep track of the difference between new tweets, @replies and direct messages. A disadvantage is that the program does not always show all new tweets, as if it has a limit. And when you want to reply on a direct message it easily posts this as a regular tweet while the message was supposed to be private.

1.3 Tweetdeck

An example of an Adobe Air desktop application with multiple features is *TweetDeck*, where it is possible to divide friends and their tweets into separate columns. Tweets can also be filtered into columns on the basis of a topic or keyword. Users can be architects of their own adapted Twitter extension, “enabling the user to control application of the computer’s capabilities to his own service”.¹⁹ TweetDeck is a

¹⁶ <<http://www.madtwitter.com/>> (accessed December 10, 2008)

¹⁷ <<http://twitterfox.net/>> (accessed December 23, 2008)

¹⁸ Crawford, Kate. ‘These Foolish Things’, 2008: 257.

¹⁹ Engelbart, Douglas, William English. ‘A Research Center for Augmenting Human’, 2003: 239.

computer controlled environment in a dialogue or negotiation with its users. Another useful feature of TweetDeck is that whenever @artgrrl has been used in the middle of a tweet instead of at the beginning, it does show up in the column @replies, although not always. Twitter later incorporated this function. A friend of mine uses Tweetdeck on a 24 inch monitor with six columns and all columns refresh at a different speed, it looks like an airport control centre.

1.4 Pictures on Twitter

On Twitter it is impossible to post photos because the only option is to post Unicode characters. A way to avoid this limitation is to post photos on a website and only post a link on Twitter. There are several services that help users to do this, which post a link automatically. Since June or July 2009 Twitter asks for authentication when a user tries to post a photo through an external website, to protect the privacy. Through the settings page a user can revoke access anytime.

MobyPicture can be used to upload pictures through a mobile phone and then this picture gets transported to Flickr, Hyves, MobyPicture itself and Twitter, although there is no picture on the last one, just a link.²⁰ These services are multi platform and at least something more is happening to a Hyves and Flickr accounts. There are also ways to follow hashtags on MobyPicture. You can also connect with friends. Basically it looks like a basic social network site.

TwitPic is a site where a photo can either be uploaded or being send through a phone.²¹ It shows photo's on the site and a link to this page will show on Twitter. They have a Firefox plug-in called *GreaseMonkey* that makes pictures visible on Twitter but in Firefox 3 under Windows XP this does not work. When too much text has been typed it does not show on Twitter but it does on TwitPic though. TwitPic truncates text at 255 characters and Twitter will show 246 characters of this tweet, which is way more than the regular 140 characters. Other users can also leave a comment that will turn into an @reply. Also the shortcuts to the pictures are small and neat, like 'http://twitpic.com/rnlc'. When clicked on the location a map appears showing where the picture was made, although the user has to add this information first.

²⁰ <<http://www.mobypicture.com/>> (accessed December 10, 2008)

²¹ <<http://www.twitpic.com/>> (accessed December 10, 2008)

Another service is *Tweetphoto* where other users can vote for an uploaded photo.²² This service is similar to the first mentioned websites, it has the possibility to upload photos or send them through a mobile phone, check photos of friends and connect with friends from Facebook. This site has a lot of advertisements, which are distracting from the photos.

1.5 RSS Feeds

These are also applications not to post or read tweets with, but to collect and graph tweets. Some just take RSS feeds from Twitter and filter on keywords, thus showing specific content.

One of these services is *LoudTwitter*. This service transfers tweets to for example a LiveJournal blog but it could also be used on other blogs like WordPress or Blogger.²³ Originally it was a tool designed for a TypePad blog, which was then turned into a site. Instead of this service one could also just implement the Twitter RSS, although LoudTwitter posts once a day and thus giving a neat overview. This way users can see that on some days they tweet a lot or nothing at all. The opposite is *Twitterfeed* which generates a tweet when a new blog has been posted but it can be used for any RSS feed. Some users use this to copy tweets from other users or to post news items like @haikutwaiku or @leprafeed.²⁴

One feature that is somewhat useful for transferring tweets to the Social Network Site Hyves is *Twwwitter*, as can be done for Facebook. It does not transfer @replies or posts from blip.fm though.²⁵

A site with a visualization of live tweets is *Twittervision*, this shows a map with click-able pop-ups of these tweets.²⁶ On the upper left is a button that shows these tweets in 3D (like a Google Earth globe) when clicked on. This website links to *Twittermap* which is less interactive but you can search on a specific location, user or keyword, although this does not always work. I get the results I want and other results that do not seem to be relevant. It is interesting to see where users are clustered

²² <<http://www.tweetphoto.com/>> (accessed July 3, 2009)

²³ <<http://loudtwitter.com>>, <<http://artgoyle.livejournal.com/>> (last accessed December 10, 2008)

²⁴ <<http://twitterfeed.com/>> (accessed December 17, 2008)

²⁵ <<http://oproer.com/twwwitter/>> (accessed January 6, 2009)

²⁶ <<http://beta.twittervision.com/>> (accessed December 17, 2008)

together, usually in areas where more people live. On the Dutch version of Twittermap one can find other users in the same neighborhood, which is useful to meet new people.

Twitterless is a service that keeps track of followers.²⁷ New followers are on top of the list on Twitter but if you lose one you do not know who. Also on this site you can divide tweets from people you follow. I did put all people from my class in one group and nothing happened. The idea is to create separate lists for certain friends but this works better in TweetDeck and not in Twitterless.

On *Twitblogs* or *Twitwall* one can tweet and blog together, but what is the use if you have a regular blog too?²⁸ The service looks very basic but does combine a Twitter account with something more. An advantage here is that @replies are being grouped together. The site is not very stable and crashed my Firefox.

1.6 Useless but Funny Twitter Ratings

Besides some really useful applications for Twitter there is a huge list of applications which only purpose is to be a toy and basically they are useless and for fun only. During my research I ended up on sites with huge lists of Twitter features that I do not think have any use but to create a tweet with some status or rank. The origins of most of these ranks are unclear to me but they are fun to kill time with. Some examples are;

- In January I found out I had an ice cold Twitemperature of 17°F (-8°C).
- My Twitter Happiness score was 503, where the maximum is 750 and 100 is very low.²⁹
- I had a follow cost of 282.01 milliscobles,
- I had a conversation quotient of 41.4% (above average)
- My Link quotient was 17.8%.³⁰ This conversation quotient diverges not much from researches about Twitter use.³¹
- My grade is 94 out of 100 according to Twitter Grader.
- I spent an average of 30 seconds per tweet, therefore I have spent 19,440 Seconds or 324 Minutes or 5.4 Hours or 0.23 Days using Twitter (data from Tweetwasters when I had 648 tweets on January 6, 2009).
- My Twick size is 7 inch small.
- I wrote 17 twooshes (a tweet of exactly 140 characters).
- There is a 74% chance I am a girl according to Twitmarks.

²⁷ <<http://twitterless.com/>> (accessed December 23, 2008)

²⁸ <<http://twitblogs.com/>> (accessed December 23, 2008)

²⁹ <<http://happytweets.com/>> (accessed January 6, 2009)

³⁰ <<http://twitter-friends.com/>> (accessed January 6, 2009)

³¹ <<http://www.pearanalytics.com/>> (accessed August 20, 2009)

I made approximate 650 tweets since July 19th 2008 according to *Tweetrush* and 7 tweets a day, although I joined Twitter only in September. I asked the creator about this and he replied, “tweetrush.com only began to collect stats on the 19th of July 2008, thus if you joined after that date, it will count all tweets made from that date as that is the date the service started. New twitter users after that date, will in fact be counted from that date”.³² So if users only started to use Twitter in 2009 it will still calculate from July 19 2008, most probably this will have its effect on the calculations of the average of tweets a day. These rankings are a kind of visualization of Twitter data. Also in January 2009 I found out that *twinFluence* has some useful data on my @artgrrl/@twesis accounts;

- I have 121,673/2,046,152 second-order followers.
- My Velocity is 857/61,979 second-order followers a day.
- My Social Capital is 1,022.5 -0.6 Low Average/3,040.3 +1.7 High.
- Centralization is 29.64%/12.18% both 0.0 Average - Resilient.
- On average my reach is 121,673/2,046,152.
- And my rank is #18,330/#1,962 (92%).

The 92% means that I have a higher reach than 92% of the other twitterers twInfluence has analyzed. Why do people build these rankings and ratings anyway? On his site the inventor of twInfluence Guy Hagen argues, “TwInfluence is a simple tool using the Twitter API to measure the combined influence of twitterers and their followers, with a few social network statistics thrown in as bonus”.³³ Furthermore Hagen writes, “‘Reach’ could work as a marketing tool, and in short velocity is about “the more followers you get, the faster you get them, and the faster your reach builds through sort of a “snowball” effect”.³⁴ It is interesting that from data of followers conclusions can be made where there are breaking points where people do not follow you anymore. So there can be a plan on how to get followers and increase your twInfluence apparently.

1.7 The Importance of a Backup

In March I decided to create a backup of all my tweets. I know Google saves everything but it would be great to have this data stored on my hard drive. There are a

³² <<http://artgrrl.wordpress.com/2009/01/06/twitter-ratings/>> (accessed January 6, 2009)

³³ <<http://twinfluence.com/about.php>> (accessed February 9, 2009)

³⁴ <<http://twinfluence.com/about.php>> (accessed February 9, 2009)

number of services where you can do this, archiving tweets and followers. TwitterBackup is a very easy and light tool that just requires your username and password and a filename. A lot of patience is needed as this tool only requests 20 tweets a minute, and one account of mine has about 120 tweets while the other has 1300 since this morning. The format in which the data is saved is an xml file. TwitterSafe makes a (huge) list of all followers and displays them in an HTML file. All followers are displayed with their username, real name, location, url, bio and latest tweet.

Another application, Tweetake, can backup followers, people you are following, favorites, direct messages and tweets at the same time and it takes only a short while to download it. It only saves all data in a huge .csv file.

1.8 Searching on Twitter

What functions should Twitter implement themselves? Should Twitter stay basic and simple? These questions however are important for my thesis, as I want to define Twitter. There are enough external applications now to extend the functionality of Twitter. Some basic functions like the search field are welcome as I use it a lot to see what is happening on Twitter.

What I would like instead of trends are keywords I can choose, like coffee or haiku, instead of the words that are used the most on Twitter. In Firefox I get a list of the last searched for items, I do not know if this is a functionality of Twitter or Firefox but it is great. I do want to keep this search box for a while. It is better to have it within reach than scrolling to the bottom of every page. The trends do vary during the day though, so they must be updated live. This way I can see what is happening on Twitter and use it more as a grassroots news site. Twitter is changing reporting, it is forcing big news agencies to change their approach, and in the chapter on Following I will pay more attention to this.

1.9 Concluding

Many applications share the same functions and possibilities, the details and differences make one application more suitable than another. There are one-way applications for reading or posting tweets only, for simple reading and posting there are two-way applications. With more and more people using an iPhone or smartphone to communicate with other people online, the basic application will lose its place, at least this is what I see in the timeline of the users I follow. All applications are media to follow other users and the way tweets are being received is not by far the most important issue. The content is also not the most important, what is more important is why users follow each other and how they respond to each other.

2. Following

One of the main characteristics of Twitter is following; other users who add you to their timeline in order to read your updates and thus follow your every move, to check what you are doing (which is the same questions Twitter asks every user). If you want you can either follow them back and read their whereabouts, ignore them or block them. Following is basically a form of online surveillance or spying. The reason to follow a certain user can be because you both share the same interest, share friends, interest in someone's private life or completely arbitrary. On Twitter following is a recent phenomenon but already in 1969 Vito Acconci conducted a work of art in which he "was to select a person from the passers-by who were by chance walking by and to follow the person until he or she disappeared into a private place where Acconci could not enter. The act of following could last a few minutes, if the person then got into a car, or four or five hours, if the person went to a cinema or restaurant".³⁵ This example however was performed in real life on the street while Twitter is virtual, if meet-ups are not taken in consideration. Another artist who is intrigued by following is the artist Sophie Calle, who questions the role of the spectator and also wants to reverse the role of the voyeur by wanting to be followed herself. In some examples I will refer back to her. In the movie *Following* (UK: Christopher Nolan, 1998) the main character Bill "has a fascination with people, and with hopes of finding material to write about, begins to pick individuals out of a

³⁵ <<http://www.mediaartnet.org/works/following-piece/>> (accessed June 22, 2009)

crowd, and to follow them. Bill establishes rules to keep him out of trouble and to keep his ‘following’ random, but soon enough he breaks one of his rules by following someone more than once”.³⁶ In both examples the people who are being followed are not aware of this and are being stalked, while on Twitter a user gets a notification of a new follower and has at least some information through the other users profile. The reasons behind following and the behaviour of users are interesting and need some more investigation.

2.1 Behaviour – follow and connect

On January 7 I conducted an experiment on following and followers and their behaviour. I found a tip on the blog of @TheBusyBrain.³⁷ He suggested following all his followers to see how many of them would follow back in return. To do this experiment I did not want to add hundreds of followers to my basic account @artgrrl as I would get thousands of tweets in my timeline. On my new experimental account @twesis I did not just click on all followers of @TheBusyBrain but also on followers of his followers and people I follow through my first account. After I had added about 800 followers I stopped and before lunch I already had more than 120 users following me back and almost 40 direct messages and @replies in which some thanked me for following them. Most of these messages were generated automatically and I did not reply back to them, I recognized those automatically generated messages because they all started with the sentence ‘Thanks for following me!’ and then a url of a blog. Other users messages contained comments on my research and my blog. The tool *SocialToo* automatically created some of these direct messages and thus I also automatically followed anyone back who followed me then, but I still added other users by hand too.³⁸ Not too much later that day I had about 200 followers and 60 direct messages. According to @TheBusyBrain my ratio of followers and friends was low in my experiment, due to the lack of a human avatar and screen name, he argued ‘People don't necessarily want to be part of an experiment!’ Later he added ‘Humanize your account! Put a photo of your face on avatar, Tweet about interesting things’. After I changed my profile I did get a few more followers. Basically I used the address book of the user @TheBusyBrain for this experiment, like the artist

³⁶ <<http://www.imdb.com/title/tt0154506/plotsummary>> (accessed June 22, 2009)

³⁷ <<http://blog.thebusybrain.com/>> (accessed January 7, 2009)

³⁸ <<http://socialtoo.com/>> (accessed January 7, 2009)

Sophie Calle who “is recognized for her detective-like ability to follow strangers and investigate their private lives”.³⁹ In her project *Address Book* (1983) she called people from an address book she found on the street and published stories about this in the French daily newspaper *Libération*.

Following and making friends on Twitter is quite different from other social network sites. For example on Hyves and Facebook I have only very few friends I have never met in person. Then again I did not share too much personal information on Twitter either. On my first account I did not follow everybody in return though. In this experiment I wanted to wait for 24 hours and see how many followers I would have by then. To follow and to be followed is fascinating in the way too see the behaviour of users, I want to understand it and therefore I have to follow other users myself. It is all part of my participatory research. Do people think it is annoying that strangers follow them, or do they collect them no matter who they are? Why do people follow in the first place? Do they care about the status of a high amount of followers or are there other reasons? It is impossible to read all updates if one follows a lot of users, but it does show a trend when checked on an arbitrary moment of the day, to keep up with what is happening online. In what ways do users collect more followers? Questions like these will be answered in this chapter.

An interesting thing about following people on Twitter is that they do not have to acknowledge you; following is a one-way function, though it is nice if people follow you back. “Many people fall into the trap that you should follow all or most people back out of a sense of politeness or so-called engagement with the community”, says Evan Williams in a response to readwriteweb.⁴⁰ It is impossible to follow everyone in return and a lot of followers are gone within a day. You can always block users too, so you will not appear in their timeline but they can still see your page, if it is not set to private. Following another user is something like bookmarking them or becoming their fan. Flickr uses the same system where users can add another user as a contact. This contact can decide to approve this request of friendship.

On most social network sites a friend has to be approved and this only works if both users add each other. This also means that one of the two can break up and the other one loses a contact in his or her list. On Twitter users are constantly aware of

³⁹ <http://en.wikipedia.org/wiki/Sophie_Calle> (accessed June 22, 2009)

⁴⁰ <<http://www.readwriteweb.com/>> (accessed June 7, 2009)

their friends as their tweets appear in the timeline. This same concept goes for friends on Hyves and Facebook where there is a feed of friend activity although here a user can decide to read less or more about certain friends or groups. It is interesting why on one site a friend has to be approved and on another site this is not the case. This does have everything to do with privacy, or the more personal content on other social network sites.

Another thing that gets more important on Twitter is the number of friends or followers a user has, especially since the launch of overviews like the Dutch [Twittergids.nl](http://twittergids.nl) (where on February 20 my account @twesis was 1st on the wordpress list, 2nd on the blogger list and student list and 17th on the top100 list).⁴¹ These are attempts to make a hierarchy. For some people this number represents a grade or level of popularity. Such rankings have a high importance in the science fiction novel 'Down and Out in the Magic Kingdom' by Cory Doctorow.⁴² Here Doctorow introduces "the notion of "Whuffie," a measure of social capital. People check out ("ping") one another's Whuffie when they meet, and that gives them some notion of how much respect and credibility the other has".⁴³ Meaning on social network sites and Twitter this is already a reality when the number of followers or friends could give a user a higher credibility.

2.2 Spam and Fake Accounts

There are several ways to gain more followers and multiple reasons to have a lot of followers other than status. Some users just want to have a lot of followers to lure users to their commercial website. An example is a company or fake celebrity, who will silently follow and then after weeks one suddenly receives an @reply with a thank you note and link to a commercial website, like @Quallekop. Sometimes it is uncertain whether this is a bot or person, like for example @THE_REAL_TRUMP. Even Twitter cannot escape the touch of criminals on the Internet, like any popular website or a website of a bank they too are a victim of phishing and wrote a warning

⁴¹ <<http://twittergids.nl/>> (accessed February 20, 2009)

⁴² <<http://craphound.com/down/>> (accessed February 20, 2009)

⁴³ <<http://dylan.tweney.com/2003/01/13/down-and-out/>> (accessed February 20, 2009)

about this on their blog early January.⁴⁴ According to Wikipedia “phishing is the criminally fraudulent process of attempting to acquire sensitive information such as usernames, passwords and credit card details by masquerading as a trustworthy entity in an electronic communication”.⁴⁵ In this particular situation a criminal organization is sending users a direct message with a link where they should click on and thus users are being redirected to a false portal and asked for their password. This false website has a url that ends with ‘access-logins.com’ and has been used before in other actions. When the criminals have the desired username and password they can send direct messages from the hacked account and trick followers to go to the false website. Twitter proactively blocked some users and reset their password. If a user uses Twitter not through the website but through an external application they do not know this warning Twitter wrote on their site about the act of phishing or that their password has been reset. Users should always be careful when they receive an email that looks suspicious and has a link that redirects to Twitter or any other social network site, they should use their browser bookmark instead.

In October three people added me to their list but they have weird arbitrary usernames and no other users follow them. These three ‘users’ were @darcyxl6hu, @yasukocibz and @shaezi9stx and I immediately blocked them. On their profile there is just one tweet with a url that invites me to register on perfspot.com. It looks like some kind of social network site to me. I could have registered to check it out but I did not. This website did not let me go, when I tried to close my browser window I got a pop-up saying some girl wants to chat with me. The question is, why did these users follow me and why together on one day? What keyword did I use that day or before that triggered them to follow me? Do other users suffer from this kind of spam too? I did check the other real users that were being followed by these three but I did not find any keywords that matched mine. Later my followers and I suffered from similar spam accounts, they all had ‘alphabet names’ and the same userpic. These also have one tweet with a link to a sex site. Keywords that relate to marketing trigger a lot, also *sex* or *love* etc. Also *gay* leads to both gay and straight spam. During the summer of 2009 most users suffered from variations of the username @Britneyfuckvid.

⁴⁴ <<http://blog.twitter.com/2009/01/gone-phishing.html>> (accessed January 5, 2009)

⁴⁵ <<http://en.wikipedia.org/wiki/Phishing>> (accessed January 5, 2009)

Another type of spam which can be annoying and also funny is @reply spam, when mostly a bot or a script retweets what one says. An example is @Berend_Botje which reacts on certain keywords like coffee and replies that is makes you ugly, or @poetryc which retweets poetry and recognized them by the hashtags #haiku or #poetry. Bots like @poetryc can be annoying but they try to provide a service to readers.

Besides fake users there are recommended users, by Twitter itself. New followers on Twitter can be found in numerous ways, like just by searching for people you already know or have read about, looking for keywords like ‘new media’ or ‘social media’ on the search page or through people you already follow. Besides manually looking for new interesting users there are some external services like ‘Mr. Tweet’, which does all the work for you.⁴⁶ You could also try ‘Read My Tweets’ or FollowFinder.⁴⁷ For people whos goal it is to have a lot of followers there are some tricks they can use and one of them is to be on the list of suggested users of Twitter. Dave Winer wrote that one user gained thousands of followers after being on this list. But why would Twitter build such a list in the first place? What are their criteria to put people on this list? When Winer argues “that it was good that the phone company was not part of the conversation”, and yet Twitter is part of conversations when they decide who gets more followers than others.⁴⁸ Twitter should not favourite some users over other users but instead add another search feature. It is not for them to decide what user is more interesting than another, as Twitter is just a service, their status can be compared to the status of a phone company.

2.3 Netiquette and Privacy

Early in November two users were entangled in a fight over a domain name based on one of the two usernames.⁴⁹ I tried to make an overview through a function in Swurl

⁴⁶ <<http://mrtweet.net/>> (accessed March 13, 2009)

⁴⁷ <<http://www.readmytweets.com/>> (accessed March 13, 2009), <<http://followfinder.org/>> (accessed March 13, 2009)

⁴⁸ <<http://www.scripting.com/stories/2009/03/12/whyItsTimeToBreakOutOfTwit.html>> (accessed March 13, 2009)

⁴⁹ <http://www.aboutblank.nl/archive/2008-11-07/Oorlog_in_Twitterland> (accessed November 7, 2009)

but unfortunately some tweets were already deleted.⁵⁰ The point here is that Twitter is not always a friendly place with nice messages between users, with thank you notes to others for following or retweeting them. It is still a public website and things that happen in the open elsewhere happen here too, including ‘street fights’. These street fights look like the ‘flamewars’ that used to happen on usenet, back in the 90’s. Discussions were getting completely out of control and moderators had a hard time deleting messages that were going out of line. Moderators could also suspend users. What does this mean for Twitter? Could the limit of 140 characters be of any influence on the intensity of ‘flamewars’ on Twitter? There are no moderators on Twitter although in the example above other users got involved in the discussion and supported the victim. Some other fights were minor or just warnings and sometimes users delete the tweets afterwards.

Besides flamewars I wondered what netiquette users follow on Twitter. When for example I reply on a blog and I leave my Twitter url, this blogger might add me on their list of friends. Also when people find out I write my master thesis on Twitter Implications, they might start to follow me. Through the Twitter search option it is possible to find people in a specific location, like through a postal code. This way I found another user and thought it would be nice to say hi.⁵¹ Within an hour I had been added to his list of friends and I was being followed. I do not know if I should follow people in return as some users tweet all day long and it is too hard to keep up. But is it rude not to follow people? They cannot see that I occasionally check their page anyway through my list of followers. Is there a netiquette for Twitter that provides rules for these situations? Should I read some users only anonymously or not? In the comments on my blog @mdbraber asked, “why should you want to “keep up””? And what is “keeping up” anyway actually? I always compare it with being in a pub or at a conference: there’s lots of interesting talk going on and I never get all of it, but that what’s interesting gets to me in one way or another”.⁵² In the example of a pub it is impossible to follow every conversation and on Twitter it is impossible to read every written tweet but some can stand out and get noticed, even retweetedand.

Sometimes a tweet can also be harmful to another user, and one must be careful. In September I was caught up in a discussion with a fellow student about

⁵⁰ This url is no longer valid <<http://slijterijgekijf.swurl.com/>> (accessed November 7, 2009)

⁵¹ <<http://twitter.com/artgrrl/status/1021364947>> (accessed November 24, 2008)

⁵² <<http://artgrrl.wordpress.com/2008/11/25/netiquette-on-twitter/>> (accessed November 25, 2008)

Twitter when she posted a @reply to me after discussing one of her 'tweets'. She mistyped and I corrected her. It dawned to me that I could not delete that message as it was her tweet and there was nothing I could do about it. So in theory she could write anything in this public message to me, and everybody who reads it will link that message and me together. So it does not matter what I write on Twitter, although I was a bit careful at first, all other users can write @replies about me with situations that are not true or offensive. For example, when an account is set to private, @replies to this user can still be read through the use of Twitter search or Google. Although Twitter accounts can be set to private, Twitter is still not a *Walled Garden*, in the sense that outsiders can still read @replies from other users. Social network sites which are a *Walled Garden* are more difficult to read without being logged in than Twitter.

Not only is Twitter an open forum that can be read by anyone, it extends beyond the site of Twitter itself. Tweets can be simultaneously posted to Facebook and friend feed etc. So all my friends on Facebook, and even friends of friends can see my tweets in their feed. On Facebook I can also tag photos of other people with their name and it will show up in their feed and the feed of their friends, being displayed for either our friends or friends of friends. They could remove the tag but the information will not leave the feed. Facebook however is a *Walled Garden* where users have to login before they can view any information, while Twitter is an open platform where anyone can see everything, unless an account has been locked. But Facebook is changing too, perhaps under the influence of Twitter, and recently Facebook has changed its privacy settings. A post is now public by default, and you have to manually change it to private when you post.

Even if we are very careful about what we write ourselves on websites like Twitter and Facebook, other users can write things about us or upload pictures we would rather not have online. Of course, the netiquette should prevent this, but will users respond when you ask them to remove a post? I know my friends would, but we are not alone out there. Being confronted with situations like these is just something users have to deal with on new communications platforms like Twitter.

2.4 Knowing your Followers

The standard e-mail from Twitter when a new user starts to follow you does not contain a lot of information about this new follower. As following is about connecting people it does not hurt to know more about this new follower. This new user could be useful to your network or tweet too much to keep up with. You might have the same interests or background. The standard e-mail only shows a name and username and a link to their profile.

So if you want to know more about this new follower you have to check out the profile first through the direct link to the user profile and then decide to follow back, block or ignore. For situations like this there is a service, *Twimailer*, which sends you a more detailed e-mail with more information about the new follower.⁵³ However, Twitter does not accept the email address Twimailer provides, so the service does not work. There is a hack to use this new service, you can forward any e-mail from Twitter through a gmail account and thus receive e-mails about the new follower. Through Twimailer you can see the number of followers, the number of friends and the ten latest tweets. Further down is a link where you can click to follow this user back. You also can see their location, a link to their homepage (if it is provided) and a short bio. Basically this saves the step to go to Twitter and view this user profile.

Additionally there is another service which lets you manage your followers; *Tweetsum*.⁵⁴ This service helps you decide whether to follow someone back or not and lets you drag users from one column to another to order them or unfollow them. They also rate all users with a 'DBI', this "DBI (affectionally called the Douche Bag Index) is a number that rates your followers according to how they use Twitter. DBI ranges from 0 to 100 and higher numbers represent people who are more likely to be annoying twitter users".⁵⁵

Sometimes you find new followers in unexpected ways. This happened to me early June 2009. It was raining and a great day to put together some Ikea boxes and I wondered if any other Twitter user came up with the same idea at the exact same

⁵³ <<http://twimailer.com/>> (accessed March 8, 2009)

⁵⁴ <<http://tweetsum.com/>> (accessed March 8, 2009)

⁵⁵ <<http://tweetsum.com/faq>> (accessed March 8, 2009)

moment. When I looked for only the keyword 'Ikea' I only got tweets from the last minutes, so Ikea surely was a hot topic that Sunday! When I look for 'dozen' (Dutch for boxes) I get tweets with the English word 'dozen' so I had to look for 'boxes' and found someone who wrote about Ikea boxes too;

@themurmish Ah, the smell of freshly opened IKEA boxes... 1:43 AM Jun 7th from web

Then I asked if he was cynical about this and he replied he could not wait for the smell to be out of his apartment. Not much later he replied a friend and him were writing a twesis too so we should stay in touch. This information was not on Twitter and I only found him because of Ikea boxes, funny how things go on Twitter.

One of the trending topics on Twitter is #followfriday and if you do not know what it is it is not easy to find out. The same goes for more than just this hashtag. Every Friday a lot of users start following other users and use the hashtag #followfriday. The idea behind #followfriday is to promote users you like so your followers can check them out and follow them too. Some users could however consider #followfriday as spam if many users just post lists of usernames, others are really enthusiastic about it. On the other hand, users start to unfollow people on monday, using the hashtag #unfollowmonday. Users like @avmaster delete those users from their friends list with the help of the website friendorfollow.com.⁵⁶ This website shows users who are being followed but do not care to follow back. Friendorfollow is a play on the phrase 'friend or foe', which is a bit harsh really, because someone who does not follow back is not immediately an enemy. On twitter you are free to follow or not follow. On Twitter there is a lot of one-way traffic going on, and in contrast to blogs it can be made visible who reads who. The next example from @avmaster shows this practice;

@artgrrl I follow everybody who follows me.....And who don't follow back, I trash on monday..... 6:59 PM May 25th from web in reply to artgrrl

On May 25 I checked my username @artgrrl on friendorfollow.com and I discovered 32 users who I follow who do not follow me back, and some of them I though they did follow me back. I was surprised how easily I can be deceived. I was in doubt whether to unfollow them or try to make them follow me. On the other hand, 102

⁵⁶ <<http://friendorfollow.com/>> (accessed May 27, 2009)

users follow me and I do not follow them back. When I checked @twesis I found 410 users which I deleted using a script through *Greasemonkey*. This script highlights all users who do not follow me on my list of users I follow, so this does not have to be done manually. Most users are from the period I had an auto-follow installed which did not automatically unfollow users.

2.5 Bio Experiment

In order to change my ranking on the Dutch Twittergids and to get more followers I changed the bio of @twesis and @artgrl in February 2009 and got high rankings.⁵⁷ On May 25 I got some inspiration through a new follower who wrote in his bio he is single, why would a user write this in his or her bio? Does it say something about the user or are they looking for a partner on Twitter? As an experiment I temporarily changed the bio of @artgrl to;

artist, blogger, 1974, coffee addict, single, doing a masters in new media,
writing my thesis on Twitter Implications (twesis)

On Twittergids are links to similar foreign sites like Tweepguide, this site also has pages full of ranking but as this is an international site it is difficult to have enough followers to get on any list.⁵⁸ I checked the Twittergids Single Top 100 one day after I changed my bio to see what my ranking was and based on the present followers at that time @twesis got the 3rd place and @artgrl 13th. The experiment was to check over the next few days if other single people started following me or if I got any messages but nothing happened.

2.6 Twitter as a Source of News

If a user writes about something popular or a news item that is hot they can gain a lot of followers too. An example is the fact that Twitter was the first medium or perhaps the second after BNR newsradio with news about the plane crash at Schiphol on

⁵⁷ <<http://twittergids.nl/>> (accessed February 8, 2009)

⁵⁸ <<http://tweepguide.com/>> (accessed May 25, 2009)

February 25. It started with a few single tweets by @p2kkennemerland, me, @Laradio and @nipp and perhaps other users too;

@artgrrl RT @p2kkennemerland 10:31:33 PRIO 1 UGS A PELIKAANWEG LUCHTHAVEN SCHIPHOL LUCHTVAART INCIDENT SCHIPHOL (VOS: 6) (INC: 09) #schiphol 11:37 AM Feb 25th from web

@Laradio Luisteraars melden ons dat er een vliegtuig is neergestort op Schiphol 10:37 AM Feb 25th from web

@nipp Airplane crash @ Schiphol Airport Amsterdam!! 10:39 AM Feb 25th from web

There was also more news on Twitter than on any other medium. On the websites of nu.nl and CNN was not much to find there right after the crash. And maybe it is not even important what the messages were saying but there were so many of them. TwitPic was even down for a while, and the Dutch newspaper NRCnext wrote that soon after the crash there were a hundred tweets a minute about it. With this many messages it is not easy to keep up or filter them. The website Twitterfall with the keyword schiphol went too fast to read, just like with the American presidential elections last year and the inauguration of Obama. Also interesting is the high amount of followers @nipp gained just by tweeting about the crash. Are they just curious about the crash? Were they following @nipp as if it was a newssite? What social impact do these media have here? This plane crash did not have such an impact as the hashtag #iranelection had, or #mj (when Michael Jackson died). People all want to be Twitter reporters now, there seems to be a great desire to 'be part of what's happening in the world', people read Twitter as news when it comes to these subjects. Besides being a reporter people are sheep, soon after a few users started to make their userpic green to show solidarity with Iran many users followed in doing so.

CNN follows the news on Twitter and has changed its reporting style to interact with Twitter. Newspapers, CNN, BBC news websites are full of discussions on how to determine the value of news related to the Iran elections on Twitter. Who is real, who is not, who is part of the Iranian government, who is protestor. Which source do we believe and why? For celebrities Twitter has the option to request a verified account, but not for reporters or reporting citizens. The old criteria for determining the 'authority' and 'authenticity' of a source do not apply anymore on Twitter. The world is still learning to deal with this, to understand its implications

here too the playfield is leveled; anyone can be a newspaper and launch the next big story. Who is to say that the reports of institutions like CNN could really be trusted more than Twitter anyway? Does Twitter give voice to the people, and democracy? Twitter is neutral though, and the enemies of democracy can use it to manipulate the crowd.

People want to repeat, participate, and share feelings and opinions, be socially important, Twitter fills this need to communicate, to join in, like when Michael Jackson died, and it shut down Twitter because there were so many tweets about it. Also whether or not the reports were correct, Twitter had a big role to increase the media hype and public awareness of issues around the Iran elections, Twitter even decided to delay the planned maintenance in June 2009 so the news stream would not be interrupted.⁵⁹

3. Experiences

Because I was fascinated by Twitter from the beginning and wanted to study its implications, I therefore needed more knowledge from inside of Twitter. To gain this knowledge I decided to do a participatory research. The result was that I wrote hundreds of tweets and replies to other user's tweets and therefore I gained a lot of experience on Twitter. Soon I began to write more personal things on Twitter like many other users do too and when this became too personal I decided to quit, at least for a while.

It was September 2008 when I first started to use Twitter and tried to figure out what I could do with it. My first sixteen tweets were about my New Media Theories class and all students used the *hashtag* '#MofM', therefore seven out of these sixteen tweets had this *hashtag* in them. Also in these first tweets I talked to a friend through *@replies* about her iPhone which continued to be a hot topic ever since. Too bad though that I cannot retrieve my old avatar and background of September 2008 (I tried to use the Wayback machine on archive.org already but no luck). About eight months later I decided to take a break from Twitter. In these eight months my average of daily tweets was between three and twenty tweets a day,

⁵⁹ <<http://blog.twitter.com/2009/06/down-time-rescheduled.html>> (accessed August 10, 2009)

although according to Tweetrush my average used to be seven, but a bit over eight according to Tweetstats.⁶⁰

In January I tweeted the most, basically I used twitter to get through the winter, as some kind of hibernation. Maybe it is logical to tweet more when it is colder. After getting to know the habits of some user groups on Twitter and discovering that I wrote things I did not remember afterwards, like an alcohol blackout, I became more careful what to tweet and finally quit. A lot of users check out the place and leave and very few users get addicted and never leave. Apparently 60% of all users on Twitter abandon their account, argues Erick Schonfeld from TechCrunch.⁶¹ I experienced a lot, and got addicted and quit cold turkey. I decided to stop using Twitter for a while on March 25th. On that day I still posted nine tweets, one of which was in Arabic. After that I posted two other tweets on March 30 and on April 3rd. These last two tweets were not visible in my timeline for some time and then two weeks later showed up. I discovered I had a lot of extra free time, because I did not read the tweets of my friends anymore either. When I read them now I can honestly say that the majority of tweets are not very useful. I did however see some tweets on Facebook in my *friend feed*. The first few days I did miss my daily shot of *tweets* but when I read them now I can honestly say the major part of them is not very useful. I wish there was some application or filter that only shows me useful tweets. I could filter on keywords in 'Tweetdeck' or 'Twalala' but that is not enough for me as I do not know what tweets could be useful until I read them.

3.1 Privacy

Getting too personal is a serious risk on Twitter as a lot of users tweet to real life friends and also in real life conversation there are listeners who you will never see or hear from ever again. Could I become too personal in my writing, like I sometimes did? In an article in the Dutch newspaper De Volkskrant, journalist Francisco van Jole argues that you have to be careful what to tweet considering the example of Connor Riley, @theconnor, who wrote;

⁶⁰ <<http://tweetrush.com>> (accessed January 6, 2009) and <<http://tweetstats.com>> (accessed April 20, 2009)

⁶¹ Schonfeld, Erick. "On Twitter, Most People Are Sheep." 2009.

Cisco just offered me a job! Now I have to weigh the utility of a fatty paycheck against the daily commute to San Jose and hating the work.

Not too long after this tweet Not too long after this Cisco channel partner advocate Tim Levad, @timmylevad, responded;

Who is the hiring manager. I'm sure they would love to know that you will hate the work. We here at Cisco are versed in the web⁶²

Soon after @theconnor changed his privacy settings to private and deleted the original tweet, but at the time it was still present in Twitter search. After these tweets the incident went viral and many users argued about this incident, using the terms 'fatty' and 'cisco'. Someone even started a website named ciscofatty.com. When one would look-up in Google the words 'fatty' and 'cisco', even five months later they would get thousands of hits, all related to this single incident. It does show the cruelty of users who tweet about it and also shows an important lesson about privacy. One cannot tweet everything that comes up in your mind, like in real life, but I also disagree.⁶³ There is a thing called freedom of speech. Back in the nineties I was a proud member of the Blue Ribbon Campaign and I think people should be able to express themselves online, as in regular life they can not always do so, in some countries people can not even blog what they want, let alone say things out loud in the streets. I would probably not shout out loud in the street what I tweet, although both are public places. This comparison is very difficult as I think Twitter cannot easily be compared with the real world. I already think Twitter is not really a remediation of anything I know in daily life. On Twitter I do not make a sharp difference between public and private, or research and personal, although many tweets can be categorized as such. When I reply to a tweet of a friend I keep in mind that all my followers and other people can read my reply, but I do not pay too much attention to that. Although some messages meant for a specific user can be read differently by another user, who did not follow the rest of a conversation. Every user can reply back and take part in a conversation or discussion and I can even get to know new users this way. However, when people in real life confront me with my tweets I can get annoyed because I think what is part of the Twitter sphere should stay inside the Twitter sphere. A lot of tweets are written in

⁶² This tweet has also been deleted, <<http://twitter.com/timmylevad>> (accessed August 4, 2009)

⁶³ De Volkskrant, 23 mei 2009.

a certain context, within the Twitter community, and outside this realm they lose part of their meaning.

Back in September 2008, in my early days on Twitter I thought everybody was nice to each other, like Francisco van Jole writes about. Through the user @about_blank and their website I read about a fight between two users that they all posted on Twitter.⁶⁴ I tried to put the pieces of the puzzle of this fight back together to find out what happened, and why did they decide to write everything down for everyone to see? A few days later most of these tweets were gone, so it is possible that they had the arguments out in the open to rally support for their case.

Another thing besides the privacy of the written word is the location this has been written. Some tweets have a location in them of their origin and users can tweet where they are. Like some friends of mine already did, I investigated the service of Brightkite, this service lets me tweet where I am.⁶⁵ Though I am not that paranoid, I do not feel comfortable when everybody can see on what location I am. With my mobile phone I can still spoof my location, but with an iPhone this is not possible. The great advantage is that for example on the Twestival on February 12, three people came up to me and said they saw me log on into Herengracht 124 (Spaces) and they received an e-mail because they were on the same location. My tweet from Brightkite was;

I'm at Herengracht 124, 1015 Amsterdam - <http://bkite.com/04zcn> 8:15 PM
Feb 12th from [Brightkite](#)

Other places I logged in were my home (just my street), my work, a meeting I had at the University, drinks at Crea Café and another meeting at Plantage Muidergrecht 24. All locations are put together in a map on the site to give an overview of where I spent my time. It is also possible to see where my friends are or just other people on the same location or in the same area.

⁶⁴ Madbello. "Oorlog in Twitterland." 2009.

⁶⁵ <<http://brightkite.com>> (accessed February 11, 2009)

3.2 More Meetings

In May I had an appointment with @ikbendAF who calls herself the (Dutch) Twitter ambassador. Because I call myself a (Dutch) Twitter specialist we had to schedule a one on one meeting for coffee. We briefly met before on the Twestival. Not too long after we met again in a bar in the Jordaan and she started talking about the photo book she is writing about Twitter. Here we agreed to meet for coffee and talked about twitter and following and tweet-ups and her book and my thesis. Because of mutual friends we also met at two parties the other week with other users. Some parties can inadvertently turn into a tweet-up. It is great to meet someone who actually knows a lot about Twitter and exchange useful links. Another example is the *twovie* meeting for which a group of people used the hashtag #twovie. We went to see a movie together and talked for hours after in the city, the day after all users at the meeting followed me on Twitter. Because we met in real life I felt connected to them and less anonymous.

On February 12 I had a busy evening at the Amsterdam Holland Twestival 2009, meeting users in real life, meeting new users and party. The Twestival was being organised in 175+ cities across the world, all partying for the purpose of *charity:water*, clean water for everyone. The event was entirely organized by volunteers and a huge success with over 200 visitors, probably much more. A lot of visitors were using their iPhones or Blackberry's and twittering in public, making pictures which can be found on Mobypicture and Flickr, using the tags twestival and Amsterdam. I tried to make some pics with my EEepc but that only works with some light around. The day after I found some messages and new followers on my Twitter accounts from users I talked to in real life last night. Not much happened between the people whom I met that night or the new contacts, although some I met months later and we could refer back to the Twestival.

Not only a Twestival is a new way to meet other users, also tweeting with followers of followers can help to make new connections. For example I tweet a lot about coffee and had an argument last year with a friend about coffee and senseo. I also searched on Twitter for keywords like *Nespresso* and found the following tweet from user @moriesbel;

mm, die Variations van Nespresso zijn echt goed. Geen cheap smaakje, maar echt puur, subliem! Geconfijte gember, mandarijn of caramel. :P :P 4:19 PM
Dec 5th, 2008 from web

I replied that I thought it is not done, to drink prefab coffee. Then Maurice replied that he thought the same at first but this coffee was really good and he asked me to come and try. Then we tweeted some more about coffee and haiku's in Dutch and English. It felt a bit weird at first, that we tried to plan a meeting through tweets and all our followers could read them, and lurkers too. But on 10:40 AM Jan 9th Maurice wrote that he would send his phone number and address through a direct message (one that only I can read). Already on the way I tweeted about the meeting;

about to leave for an IRL Twitter meet & greet for 2 with @moriesbel (yes, we only met on Twitter) 11:27 AM Jan 11th from web

On the actual meeting itself we had coffee and tweeted about it, it was a real tweet-up. We also discussed the kitchen and later I got a reply on Twitter with a link to pictures that the kitchen had been modified, hence the meeting offline continued online. Our real lives and virtual personas collided. During this tweet-up we had discussions about social aspects of Twitter and escaping the limitations of Twitter like customizing your background to add more information, very inspiring like Maurice tweeted;

Twoffeessants-meet with @artgrl was not only gezellig, but really inspiring and productive as well. 5:05 PM Jan 11th from TwitterFon

For our next tweet-up we had coffee again and discussions about lurking on Twitter and if this is ok or not. When are people just following, when is it lurking and when is it annoying? Is lurking just reading without ever writing a comment or reply, but then what about readers of a blog? Is the purpose of a (micro)blog writing to be read or to receive comments too? We definitely need new descriptions for words like *microblogging* and *lurking*, in my opinion a blog cannot be compared with a newspaper because the function to reply is hard to ignore and easy to use. But a reader is not required to reply.

3.3 Classifying my postings

How can I classify my postings/tweets or to what extent was I answering ‘what are you doing? Just like Mischaud found out early in his research, my postings also did not reply to the main question of Twitter “what are you doing?” but were instead more “random personal statements”.⁶⁶ Sometimes I was really stating what I was doing but I also chatted a lot about anything. Early June 2009 I had written and posted more than 1700 tweets and I made back-ups and tried to classify them through keywords. I made my own questions which I answered on Twitter, like ‘what am I thinking?’, ‘how do I feel today?’ or I wrote about what I did, answering the question ‘what did I do today?’ I became more aware of what I wrote through visualizations of tweets, so my @replies became visible and my most used words, like coffee. Some days I am just talking out loud, when there is not much activity going on and nobody replies to my tweets, as if my tweets are lost in cyberspace. The thing is that I do not know if my tweets are being read if I do not get any reply. Sometimes I hear much later from friends that they have read a certain tweet. Therefore it would be nice to have some sort of statistical data about my profile or separate tweets and so far I have not been able to find any satisfactory data. I can only find the average tweets a day or what time of the day I write the most.

3.4 Secrets and Lies

On multiple blogs throughout the blogosphere documentation turns up about statistics about Twitter, like the average age of users, the gender of users and how many new users Twitter gets every single day. These blogs are never close to the truth, this data the blogs say they have is false and annoying, as other blogs believe and copy this data. Another annoying thing about false data is that some users who claim they know a lot about Twitter are being believed by others and subsequently quoted. I have met some of these users, like @vincente (Vincente Evers) and @ikbendAF and the discussions we had made no sense. Early February 2009 I had a discussion with @vincente about the average age on Twitter and he argued most users were in their

⁶⁶ Mischaud, Edward. ‘Twitter: Expressions of the Whole Self.’ 2007: 18.

40's, due to some research he read. But to know the age of a user there has to be some information on the birthday in the bio section of the user profile, or any information on the website of a user. But @vincente based his assumptions also on the users he personally knows. In June 2009 I had another discussion with @ikbendAF about the average age of Twitter users, she also based her knowledge on blogs and she personally knows a lot of users in their 30's. But to know a lot of users personally does not mean other age groups do not exist, or exist less. When information is not widely available people should not speculate about this information as if it is true, they should choose their words more carefully. The only things that can be said about Twitter is the impact it has. Another issue about users like @vincente, @ikbendAF, and also @2525 (Francisco van Jolen), they distribute information which is not true but other people like to read about it. Once they have been asked to do their story on a certain issue, like the average age on Twitter, they are being asked over and over again, as Evers and van Jolen are well known trend watchers. In the Dutch media (newspapers like NRC next and television) the same users keep being asked to tell something about Twitter, while stories are not being verified because previous media have had interviews with them.

Not all experiences were good, and not all were bad, when I think about feeling ignored by some users, being misunderstood. I also wrote a lot of cryptic tweets, only to be read and understood by some close friends which annoyed others. I felt loss when other users stopped following me, I did not understand their reasons but maybe there were none. I stopped following other people too, or muted them in Twalala and Tweetdeck and then they did not know. At times I was disappointed and irritated by reactions, or by waiting for response that never came, while other users did get response to their tweets. An example was the crash of an airplane at Schiphol. I was one of the first people to tweet about this, but I was never mentioned by anyone. I never managed to get into the inner circle of users that are being mentioned over and over again in newspapers and other articles and blogs. I did have some tweets saved within my favorites of users mentioning me writing a thesis about Twitter though. Due to misunderstanding of my words, because of arguments I had offline I became more careful since the summer of 2009 and want to take some time off Twitter when this thesis is finished.

4. Linguistics

How can I classify my postings/tweets or to what extent was I answering ‘what are you doing?’ Besides, a popular use of the limit of 140 characters is the haiku, which I mentioned before, and another way to escape limits and stay close to art is the use of the aphorism, a lot of users post tweets as aphorisms or epigrams without knowing it. The 140 characters limit can be annoying at time, but it stimulated the creativity of users at the same time. In his research about user behaviour on Twitter, Edward Mischaud found out early Twitter postings did not reply to the main question of Twitter “what are you doing?” but were instead more “random personal statements”.⁶⁷ These statements are closely related to the aphorism, which is a short philosophical statement, which perfectly fits within the 140 character limit of Twitter. Because the main question is not being answered most of the time, I made my own questions which I answered on Twitter, like ‘what am I thinking?’, ‘how do I feel today?’ or I wrote about what I did, answering the question ‘what did I do today?’. Other major themes that return in tweets are retweets, hashtags and abbreviations.

Although most tweets on Twitter look completely random (especially when you follow a lot of users it sure looks that way), I wonder in what way tweets can have a narrative. Maybe not within a single tweet, but when they form a sequel they can. When @replies form a conversation which can be viewed in the search function of Twitter, or perhaps in some applications like TweetDeck. Also a story could be told in separate tweets, but it would be difficult to read. So are tweets just some comments in a cloud or are they connected? Are tweets part of a rhizomatic structure? How are retweets connected and what is their purpose? The practice of retweeting connects tweets and users; an interesting tweet is repeated with a reference to the original author (basically it is a reply with *RT*, *Retweet* or *Retweeting* in front of the original), like the example;

Retweet @chutry just because some tweets are “bad” doesn’t mean the medium is bad. <snip> #altnet 5:37 PM Feb 21st from web

⁶⁷ Mischaud, Edward. ‘Twitter: Expressions of the Whole Self. An Investigation into User Appropriation of a Web-Based Communications Platform.’ London: Media@lse, 2007: 18.

4.1 Playing with Words

Some special words that are being used on Twitter can be categorized and are interesting to take a closer look at. An example is *pareidolia*, which basically is a psychological phenomenon and the tendency to interpret a coincidental visual stimulus as something already known to the viewer. The word comes from the Greek *para* (meaning faulty or wrong in this context) and *eidolon* (image).⁶⁸ Pareidolia is also related to *paraphasia*, disordered speech in which words are substituted for another word. Common examples are seeing faces in cars or clouds. Pareidolia is related to the paranoiac-critical method developed by Salvador Dali in the 1930s, in which artist find new ways to view the world and objects around them. Objects have no meaning of their own but when viewed our unconscious perceives a phantom image, like the interpretation of subliminal messages.⁶⁹ Our brain links things that are not linked in the first place. When objects are being perceived as real, or having a personality or even a face, how does this phenomenon relate to the machinic phylum, a concept of Gilles Deleuze, Félix Guattari and Manuel de Landa? And how does our brain handle new concepts, new technologies? In his book *Bergsonism* Deleuze writes about reality and what is perceived as real;

“At the turn of the last century the French philosopher Henri Bergson wrote a series of texts where he criticized the inability of the science of his time to think the new, the truly novel. The first obstacle was, of course, a mechanical and linear view of causality and the rigid determinism that it implied. Clearly, if all the future is already given in the past, if the future is merely that modality of time where previously determined possibilities become realized, then true innovation is impossible. To avoid this mistake, he thought, we must struggle to model the future as truly open ended, truly indeterminate, and the past and present as pregnant not only with possibilities which become real, but with virtualities which become actual”.⁷⁰

These arguments refer the phrase that everything has already been written or done before, nothing new can be created anymore. Then all new technologies would have a component of remediation in them. According to de Landa the notion of a ‘machinic phylum’ blurs the distinction between organic and non-organic life. This would mean a blur between human life and technology. De Landa also mixes the term machinic

⁶⁸ <<http://cherylbernstein.blogspot.com/2008/11/paranoiac-critical-method.html>> (accessed December 24th, 2008)

⁶⁹ McDonough, Tom. ‘Delirious Paris: Mapping as a Paranoiac-Critical Activity’ 2005: 12.

⁷⁰ Deleuze, Gilles. *Bergsonism*. Zone Books, New York 1988: p. 97.

phylum with Deleuze's body without organs, which could be applied to Twitter, when an assemblage of tweets is seen as one single mass. Taking this further "(post)humanity will begin to coevolve (or at least to share its ecology) with new systems of autonomous robots and software agents".⁷¹ This is similar to what is happening on Twitter, when people get involved so deeply when writing down all aspects of their every day lives.

"Nature in this notion is determinate by neither subjects nor objects. It is above all about nonlinear relations, open-ended connections of partially actualized bodies encompassing distinct levels of organization (biological, cultural, technological). [...] Indeed, a body never corresponds to a unity, a whole, an organism, or a system".⁷²

The distinction of online life and offline life intertwines and also the distinction between organic life and non-organic life becomes smaller as argued before. The bodies of users mix with technology through the use of the site of external applications.

Most Twitter applications and services have their own domain name which refers to Twitter and sometimes to the service they are offering their users. Most of them have a '.com' and start with 'tw'. Therefore I registered a domain too; twesis.info. Like other domains this name is a *portmanteau* or linguistic blend of the words 'Twitter' and 'thesis'. The usage of the word 'portmanteau' in this sense first appeared in Lewis Carroll's book 'Through the Looking-Glass' (1871).⁷³ Other existing examples of these blends are names of applications like *Twitterific* (Twitter & terrific), *Twidget* (Twitter & widget) or *Twurl* (Twitter & url). Here, Twitter is still a neologism although many people within new media studies know what it means and start to play with it. From twesis the words twesism could derive.

It is interesting to find out what tweets really are and come up with words or theories to describe them. This is particularly needed in order to classify tweets. In tweets a user has to be careful what to write and rephrase everything into less words due to the limit of 140 characters. Hence it could be useful to only name a property of a person to refer to them, this is called *metonymy*. Referring to a situation or person through something like a metaphor or property is "made advantageous in any environment where the same stereotypical situation recurs with sufficient regularity to

⁷¹ Johnston, John. A Future For Autonomous Agents: Machinic Merkwelten and Artificial Evolution.

⁷² Parisi, Luciana. 'Information Trading and Symbiotic Micropolitics.' *Social Text*. 22.3 (2004): p. 25-49.

⁷³ <<http://en.wikipedia.org/wiki/Portmanteau>> (accessed December 22, 2008)

make the explicitness of the complete referential expressions tedious”.⁷⁴ Most situations or context referred to in tweets are known by the followers of the user who tweets about the particular situation. Due to the 140 character limit words are often abbreviated, words can be shortened or a group of letters can be taken from a word or phrase. Abbreviation does not primarily occur on Twitter but was adopted from sms, as Crispin Thurlow argues in his research on SMS, “heavily abbreviated language is of course also a generic feature of interactive CMC niches like IRC’s online chat and ICQ’s instant messaging and we were not surprised to see that 82% of participants had already reported using abbreviations in their text-messages”.⁷⁵ Besides the omission of vowels in words, as is happening in SMS, interpunction is also neglected on Twitter to gain more space within the 140 character limit.

Basically users want to be able to communicate from one system to another without the limits of one system that has a monopoly. Here lies the power of web 2.0, where a lot of social network sites are linked together. Besides a connection between users, web 2.0 applications like Twitter and its clones they are external aids to enhance our cognitive abilities. On the other hand the notion of Socrates could be extended, he argued two thousand years ago that books would destroy thought. What would he think of messages that flow around in cyberspace between users, or blogs? Socrates was against books as they were too static, “there is no one to interrupt or ask questions, the author of the book is not there”.⁷⁶ On Twitter however the written words are there, just like the author, who can respond when replied to.

4.2 Data Visualization

Now that we are used to tag clouds in the realm of web 2.0, it’s time to move to the next level and do more with words. It is interesting to pay less attention to actual sentences but to words only, the more a certain word is used indicates the importance in the text without seeing the whole context of the original text. There are a few websites where people can create an alternative tag cloud, or a cluster of words like

⁷⁴ Smith, Neil. *The Twitter Machine: Reflections on language*. Basil Blackwell: London and NY, 1989: 76.

⁷⁵ Thurlow, Crispin. *Generation Txt? The sociolinguistics of young people’s text-messaging*.

⁷⁶ Norman, Donald A. *Things That Make Us Smart. Defending Human Attributes in the Age of the Machine*. Boston, Addison-Wesley: 1993: 44.

worldle.net.⁷⁷ Wordle takes words from a text or site and transforms these into a cloud that can be transformed into different shapes and colors.

Jeff Clark argues on his blog, “critical drawback of tag clouds is that the words are scrambled (or sometimes positioned strictly by frequency) and one cannot tell from the cloud which words were actually used together in the original text”.⁷⁸ There is no meaning left anymore, except the interpretation of the viewer. Jeff Clark also created the wonderful Twitter Spectrum, which is an analytical project that uses keywords from Twitter and compares them. it is interesting to see how this changes: I created a Twitter Spectrum, and the word coffee was one of the main keywords. When I looked again three weeks later it was gone. The content of my tweets had changed to a different subject. Other fascinating projects are portraits made out of words or a TextArc of ‘Alice in Wonderland’. A TextArc is a

“visual representation of a text—the entire text (twice!) on a single page. A funny combination of an index, concordance, and summary; it uses the viewer’s eye to help uncover meaning. It is a tool designed to help people discover patterns and concepts in any text by leveraging a powerful, underused resource: human visual processing. It complements approaches such as Statistical Natural Language Processing and Computational Linguistics by providing an overview, letting intuition help extract meaning from an unread text”.⁷⁹

The last example uses words from a book while Wordle and Twitter Spectrum make use of data from databases. Most content we watch on the Internet like on Twitter or Flickr and YouTube and all MySQL websites like blogs and newsgroups and discussion boards all make use of pulling data from databases and displaying this data onto the computer screen.⁸⁰ So is text always a visualization then if text can be visualized too?

⁷⁷ <<http://www.wordle.net/>> (accessed February 6, 2009)

⁷⁸ <<http://www.neoformix.com/2008/ClusteredWordClouds.html>> (accessed February 6, 2009)

⁷⁹ <<http://www.textarc.org/TextArcOverview.pdf>> (accessed February 6, 2009)

⁸⁰ Lovink, G., Sabine Niederer. *Video Vortex Reader: Responses to YouTube*. Institute of Network Cultures, Amsterdam: 2008: 12.

4.3 Interactivity

Is there a difference between people chatting with each other online or offline? And what about social network sites on one hand, and Twitter on the other hand? There has been a shift in ways people communicate with each other since the invention of the telephone, then the mobile phone and now microblogging. Kate Crawford argues that chatting on the phone was already annoying to outsiders to begin with, although most of these conversations took place in private homes. The use of mobile phones in public spaces was more annoying, as others who had nothing to do with these conversations overheard them. The content of these conversations were small bits of intimacy and the sharing of everyday trivia.⁸¹ Crawford asks herself what happens to our understanding of intimacy when users share their everyday trivia or insignificant content within public networked space. This question lies in the same line with the phrase ‘the medium is the message’ of Marshall McLuhan, when the use of the medium is more important than the actual content. The content itself might not even be true or confabulated when people lie about their whereabouts, which is getting harder with the iPhone that blogs where it is. Also on Twitter all content is out there for everyone to see in real time, there is an interaction between people, as well people and technology. Interactivity could be formulated as “an expression of the extent that, in a given series of communication exchanges, any third (or later) transmission (or message) is related to the degree to which previous exchanges referred to even earlier transmissions”.⁸²

When I start looking at interactivity from a different perspective, I want to analyze what interactivity means on Twitter, what is happening between users when they tweet and reply to each other or if the system and users communicate. Mark Meadows argues that interactivity consists of three principles;

- input/output
- inside/outside
- open/closed

⁸¹ Crawford, Kate. ‘These Foolish Things. On Intimacy and Insignificance in Mobile Media.’ in: Goggin, Larissa Hjorth. *Mobile Technologies: From Telecommunications to Media*. Taylor & Francis, 2008: 251.

⁸² Rafaeli, S. (1988) ‘Interactivity: From New Media to Communication’, in R.P. Hawkins, J.M. Wiemann and S. Pingree (eds) *Advancing Communication Science: Merging Mass and Interpersonal Process*, pp. 110-34. Newbury Park, CA: Sage. in: Jacobson, Daphne. *Verhagen 2.0. De rol van Twitter in het contact met Maxime Verhagen en zijn achterban*. Unpublished paper, 2009.

Meadows argues that “input should create output and the output should create input. It’s the interaction cycle’s ability to add information that defines the interaction’s quality”.⁸³ There should not be much time between the input and the output argues Meadows, the user should have a clear sense of change. I am not only looking at the system here, which can be either the Twitter website or any external application that displays a fresh tweet, but instead interaction from one user to another. When a tweet is posted the user expects this tweet to be shown on the Twitter website or the external application, but the user does not expect an immediate reply from another user. Furthermore Meadows argues interactivity can be broken down into four steps, which are;

- observation
- exploration
- modification
- reciprocal change

People are being pulled in and have to take into account the world around them, being a virtual environment or not, they need a kind of awareness before they can begin to explore their surroundings. After making an assessment the reader takes action and changes the system. In the last step the system tries to change the reader’s actions.⁸⁴ When I take this model back to Twitter the reader is a user who gets aware of the environment of Twitter, through any given user interface. The user makes use of the possibilities of the user interface by writing tweets for example. The user can subsequently change the settings of the used application and the system replies by action accordingly to these settings. One of the actions of the system can be displaying multiple tweets by multiple users as the user in this example started to follow lots of other users. All the information of the followed users together gives an insight in their lives, giving some information of intimacy of their lives. Although there is not much left of any intimacy when this information shows up in a public timeline.

Another form of intimacy on Twitter is the use of the feature hashtag, a piece of coding that connects separate tweets which suggests a narrative between them. For example New Media students at the University of Amsterdam use #MofM (short for

⁸³ Meadows, Mark S. *Pause & Effect: the Art of Interactive Narrative*. New Riders, Indianapolis: 2003: 39.

⁸⁴ Meadows, Mark S. *Pause & Effect: the Art of Interactive Narrative*. New Riders, Indianapolis: 2003: 44.

Masters of Media) so they can keep up with each other, there are however endless possibilities like the very popular hashtag #haiku. Another interesting and popular hashtag is #inaug09 where users could follow the inauguration of Barack Obama in January 2009. Is this particular feed more a news bulletin or an unorganised newspaper? It looks more like an IRC channel where different users post short messages. Some users also use a certain hashtag in their message without actually adding anything to the narrative or conversation or subject, basically this is spam.

4.4 Freedom to Tweet

On Twitter there is a freedom of speech, the freedom to tweet what you want. Although not all users will like what you have to say and might stop following or even block you. Some tweets can be discriminating while others are just annoying. Sometimes it is useful to add 'tw' to Twitter related words, especially to name meetings, but after a while it can become really annoying. But this is an innocent example. What if users become too personal? In an article in the Dutch newspaper De Volkskrant, @2525 argues that you have to be careful what to tweet considering the example of the user who wrote about a job interview at Cisco, and that you cannot tweet everything that comes up in your mind, like in real life, but I strongly disagree.⁸⁵ Back to the thing called freedom of speech. Back in the nineties I was a proud member of the Blue Ribbon Campaign and thought people should be able to express themselves online, as in regular life they could not always do so, in some countries people can not even blog what they want, let alone say things out loud in the streets.

4.5 140 Characters

Everybody thinks that on Twitter users have a space of 140 or less characters to say what they want to share with the world. But rules are made to be broken, right? Some tweets look rather small at first sight, but when you click on them they expand.

⁸⁵ De Volkskrant, 23 mei 2009

Sometimes I expand some tweets to see why I could only see half of it and one time something very strange happened. I found a tweet of 246 characters;

<http://twitpic.com/2er3y> – @moriesbel proudly showing his delicious brownie creation specially made for me with silly @artgrl hanging on some kind of phone thingy acting somewhat erh artgrrlish. btw we ate two thirds of this calorybomb because i 1:41 AM Mar 30th from TwitPic

Maybe because this tweet was originally posted from Twitpic could be the reason it is longer than usual but other tweets from Twitpic are being truncated earlier, regardless of their message. This long tweet has also been truncated but way after 140 characters. It was posted at a time when Twitter was down and up, and down and up and running again, so I thought it could be a bug, or just luck. The next step was to recreate a moment like this and post a picture on TwitPic with a longer message than allowed. Too bad TwitPic already truncated my message to 255 characters and only shows;

@artgrl tries to post an experimental tweet to check if she can also generate a tweet that is longer than the usual 140 characters, although this tweet has been posted through twitPic, the picture itself contains a screenshot of the program TwitTray which she recently blogged about (my strikethrough)

while Twitter truncates this even more to;

<http://twitpic.com/57qdm> – @artgrl tries to post an experimental tweet to check if she can also generate a tweet that is longer than the usual 140 characters, although this tweet has been posted through twitPic, the picture itself contains a scr

Counting the characters (with spaces) shows I am also capable to write a 246 character tweet! Does this mean tweets could be 246 characters or less? And what happens to tweets without spaces that are to long for the Twitter website or applications to handle? That could be my next experiment on Twitter.

4.6 Concluding

When I check my tweets it is obvious that almost half of them are @replies and thus part of a conversation or narrative, to be compared with the research of Ryan Kelly in which he found that 40% of all researched tweets were @replies.⁸⁶ Other tweets are

⁸⁶ <<http://www.pearanalytics.com/>> (accessed August 20, 2009)

more statements, poetic lines or aphorisms, rather than saying what one is doing. Whenever tweets are part of a narrative, they are thus connected, although they could still be rhizomatic because one can always click on either the username or the date or the source of a tweet. Due to the 140 character limit on Twitter users need to be creative, using abbreviations, letting out spaces or words, while in other chats they do not have to. On TwitPic this limit is less tight but the main use of that service is just sharing photos onto Twitter and using it to have more space to chat is pointless and complicated. Offline chatting like in a phone call is a completely other world and sentences can be of any length, Twitter is a medium that is not easy to be compared to other platforms, it does not have a real history of remediation. Twitter can be considered as a social network site but the profile users have is very limited and there are less privacy issues, unless they write about personal matters. When a user profile is not set to private Twitter is also not a Walled Garden like bit social network sites are.

Conclusion

There is so much going on, on Twitter that it is hard to cover it all after using it for a year. Most questions I asked about Twitter have been answered and some not, nobody knows the future of Twitter. Really, nobody knows the future of Twitter. Even the people who created it have no idea where it is going. Twitter is still growing, and people are still learning how to use it. Twitter is a huge social experiment, in which I have participated for a year. I have been able to observe some of the emerging effects of Twitter. An example is the ways users follow each other, their interactions and hot topics like elections and world news. Twitter means a lot for communication between people, friends, and colleagues and between people and companies, or users and politicians. People meet through Twitter and make new connections. There has been a shift in ways people communicate with each other since the invention of the telephone, then the mobile phone and now microblogging. Twitter is not just a way to stay in touch or to exchange thoughts but can bring people down or amplify their popularity. The question where does Twitter fit in the web 2.0 landscape has multiple answers, it is not a remediation of anything known before Twitter and only has a short

genealogy. But when the attention of all media for Twitter is taken into consideration, Twitter executive Jack Dorsey could be right that soon Twitter will be as normal as electricity. It is already normal for many users to use Twitter as their daily source of news and to communicate with their friends.

During my research the website of Twitter changed somewhat but not much. For example the search option that I gained early 2009 is now standard for every user and there is some minor advertisement. Most external applications I used have functionality that Twitter lacks, although the data they use is present inside the Twitter database. Users can choose between one-way applications with which they can only read tweets or only post tweets. Then there are two-way applications to post and read tweets with and finally there are applications with multiple functions. Last there are applications have no other purpose than being a toy, like ranking systems. The interesting thing about the Twitter API, is that users can escape the rules that are imposed on them, they get some kind of agency.

All external applications only work if a user follows other users and read what they are doing. Following is all about online surveillance. Following derives from other ways of spying, like the examples of Vito Acconci, Sophie Calle and Christopher Nolan have shown. In these examples and on Twitter users do not have to acknowledge a follower; following is a one-way practice. Only on Twitter users get a notification of a new follower, through Twitter or a third party and hence have at least some information through their profile. The reason one user follows another can be very divers, like sharing the same interest or friends. To follow and to be followed is fascinating in the way too see the behaviour of users. There are websites where users can register and then automatically follow every user that follows them. Some users want to have a lot of followers as if this number gives them a higher status. In case the profile and timeline of a user is not set to private but public anyone can follow this user, mostly strangers. Therefore every user has to be careful what to write on Twitter, not just for their privacy but also of users they send an @reply to. A downside of the easy access to other users is the number of spam accounts who's only purpose is to lure users to their website. On the other hand there are users who are not real people but characters, like pets, plants, special characters or dummy users. These are not considered spam here but make Twitter more lively. There is not really a netiquette for Twitter or about following, but when for example one users writes

about the next this last user could start to follow you right away, like my example of the Ikea boxes. A short thank you message is very common, especially on Friday when users suggest others and use the hashtag #followfriday. Even if users follow some basic netiquette rules they have to be very careful about what to write on websites like Twitter or Facebook, other users can write things about them or upload pictures they rather not have online.

Within my own experiences on Twitter I noticed I was not always careful about what I wrote although I did not always wanted to mention my present location. I hope I did not harm any other users but I showed quite a lot about myself, probably due to the freedom of speech. Looking back at older tweets I could still delete them. When I got too personal I quit for about three weeks. Getting too personal is a serious risk on Twitter as a lot of users have conversations with real life friends and also in real life conversation there are listeners who you will never see or hear from ever again. I would most certainly not shout out loud in the street what I tweet, although both are public places. This comparison is very difficult as I think Twitter cannot easily be compared with the real world or neither is a remediation of anything. I never made any difference between public and private issues in my tweets, neither between my research and personal matters, although many tweets could be categorized as such. When I replied to a tweet of a friend I kept in mind that all my followers and other people could read my reply, but I did not pay too much attention to that. Twitter is very open and every user can reply back and take part in a conversation or discussion and could get to know new users this way. Meeting people through Twitter is very interesting and meet-ups have their own special sphere that people who do not tweet find hard to understand, with a special language and sometimes talking in hashtags.

Most tweets do not reply to the main question of Twitter ‘what are you doing?’ but instead are part of conversations or answer questions like ‘what are you thinking?’, ‘how do you feel today?’ or answer the question ‘what did you do today?’. These answers or other tweets form a narrative together when they are part of a conversation or have the same hashtag incorporated in them. Inside tweets some special words are being used and other words are being invented, for example a portmanteau or linguistic blend of the words ‘Twitter’ and ‘thesis’ and other words that start with the letters ‘tw’. Applications tend to start with ‘tw’ too and meet-ups often have their own website starting with ‘tw’. Due to the 140 character limit words

are often abbreviated, words are being shortened or a group of letters could be taken from a word or phrase.

Twitter users want to repeat, participate, and share feelings and opinions, be socially important, Twitter fills this need to communicate, to join in, like when Michael Jackson died, and it shut down Twitter because there were so many tweets about it. Also whether or not the reports were correct, Twitter had a big role to increase the media hype and public awareness of issues around the Iran elections, they did delay the planned maintenance in June 2009 so the news stream would not be interrupted. Although Twitter is very popular in the media in the first half of 2009 I do not think this had a big influence on getting more users, at least not in the Netherlands. Twitter could be superseded by another message service or social network site or it could be a part of a new way of communication or perceiving the world.

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