SOCIOLOGY IN SWITZERLAND

Towards Cybersociety and Vireal Social Relations

Tweeted thoughts and Twittered Relationships

Some Sociological Remarks on the Promises and Limits of Molecular Online Communications

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Summary

Twitter (and other micro blogging services) combine the flexibility and immediacy of bilateral telephone SMS with the multilateral networking capacities of the Web 2.0. In contrast to Blogs, discussion fora and Social Network Sites, Twitter allows online communication characterized by asymmetric leadership-follower relationships, remoteness of sender identity, metacommunicative signaling functions and low threshold spontaneous RealTime responses compatible with most current social activities and roles. However, such short messages are only functional within highly specific frames of shared experiences and symbolic interpretations that are a prerequisite for communicating successfully by using a very restricted verbal code.

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1. Twitter as a crossover combining mobile telephony and the WWW

As the two most spectacular and influential technological developments of the last fifteen years, mobile telephony and the Internet have both contributed to a significant empowerment of individuals: enabling them to engage in highly self-determined communication irrespective of time and space, without any special skills and efforts needed and independently of any institutional affiliations. The prospective fusion of these highly complementary thriving technologies opens a perspective for many additional innovations by combining functionalities that have hitherto been separated.
Twitter represents such a hybrid by allowing Short Messages (of 140 characters or less) to be exchanged over the Net: thus

> *"combining the flexibility of bilateral mobile phone SMS by with the immediacy of Instant Messaging and the multilateral social networking potentialities of the WolrdWideWeb." (Osborne 2008).*

Given the small size of the messages, they need low bandwidth and can be sent from anywhere and received at any place and by any channel of communication: Phone, Email, IM, RSS or the Web.
Like a telephone network, Twitter is a highly user-guided service that does not need many formal guidelines, rules, supervision and administration. In fact, the users themselves create the rules. e. g. by deciding collectively to use the @ sign for marking messages determined to go directly to a specific receiver, or by using hash tags (#) for sorting out tweets according to referenced objects, topics of persons. (Stamatiou et. al. 2008: 15).
Similarly, there is almost no need for moderators, gate keepers or other formal managing roles, and also very little need for instruction manuals, because the small amount knowledge and skills needed for usage are well transmitted horizontally from more experienced users to "Newbies" (Stamatiou et. al. 2008: 16).
By default, my messages are public, so that anybody with a Twitter account may become my "follower" by subscribing to my updates. And I may in turn follow anybody else regularly by setting him or her on my list. In Settings Account I can chose to "protect" updates, which means that people can see my messages ("Tweets) only with my approval.

Originating in March 2006, Twitter has experienced spectacular growth recently: particularly in the year 2008 during which the number of active users has more than tripled (to about 5 Mio) and the number of unique visitors has risen from 0.5 Mio to 3.5 Mio per month. (Hub-Spot 2008: 3).

2. Bottom up leadership-follower patterns

In contrast to the horizontal, egalitarian friendship networks that arise in Social Network Sites like MySpace, Facebook or LinkedIn, we see the emergence of highly asymmetric verticalized leader-follower patterns (Niles 2009). While this also includes reciprocal and transitive or circular patterns (like A > B > C > A), unilateral relationships are highly predominant. This is manifested in the highly skewed frequency distributions of followers: about 35% having 10 or less people following, while 0.2% possess more than 2500 (HubSpot 2008: 6).

Irrespective of such configurations, followers choose leaders not because of love and social nearness, but because they provide useful information.
The focus is not on the person as an integral human being, but only on specific qualities of a user that are manifested in his or her ongoing communications. Thus, to end communications regularly means to fall into oblivion and to become inexistent in the system: again in sharp contrast to Social Network Sites that abound with neglected "ghost pages" not yet eliminated after exit or even death (Geser 2008).

By looking upwards to the same leaders, followers may have little inclination to form horizontal networks among themselves, because they usually have too different reasons for following and no useful information to exchange.

Effective Twitter leadership may well be based on offline status: e. g. on the incumbency of a high political office or on a charismatic reputation acquired through conventional mass media.[1] Far from being subversive to established institutional structures, Twitter may to the contrary reinforce such patterns: as it may also reinforce the informal followership of politicians who are running for office (e. g. in the paradigmatic case of Obama in fall 2008).

Evidently, only a few people are likely to get widespread attention when they use Twitter for its originally intended purpose: to communicate in Real Time what they are doing at this very moment. Certainly, this applies to the British Prime minister whose daily activities, appointments and meetings are worth to be communicated in detail because they all may have relevant consequences (e. g. meeting Lukaschenko for a full hour may well signal an improved relationship between UK and the Bielorus regime).
On similar grounds, G. W. Bush established a Twitter address in fall 2007 in order to give

> *"a running account of the president's daily activities and public communications, including his travels, addresses, speeches, letters, and nominations. Each tweet includes a date and time stamped headline with a link to the full text of the communication." (Owen/Davis 2008).*

On the other hand, it is essential to note that all leadership added online by Twitter is of a bottom-up nature, because followers always retain their full autonomy to ignore updates or to withdraw:

> *"Users choose who they follow, so there is not any kind of preferred distribution that leader could acquire. Leadership is unofficial and it comes in the form of followers. These leaders don't have any real power, just the comfort of being listened and the ability to reach a larger audience. Leadership comes in the form of credibility, not authority." (Stamantiou et. al. 2008: 15).*

As the number of followers is so visible, Twitter is disposed to give rise to a new, highly objectifiable dimension of public reputation - even more than in the case of social network sites where the list of "friends" does often not reflect the currently existing network of active social relations. Especially in political election campaigns, the number of followers of a candidate can easily be taken as a very visi-

[1] A vivid example of the latter case is Shaquille O'Neal ("Shaq") who contributed much to make Twitter popular during 2008: to the extent that his reduced Twitter activity in (in Dec 08/Jan 09) gave rise to concerns that Twitter's success may become endangered when stars like "Shaq" withdraw their commitment (Frommer 2009).

ble and rather reliable indicator of his or her popularity. In the U. S. presidential election, the fact that Obama had more than 100 000 followers (and McCain less than 2000) was so thoroughly communicated in the media that it may itself have boosted Obamas popularity further. And during the Australian election campaign in November 2007, the news spread that the Liberal Leader Malcolm Turnbull *"has been ranked 25th on a list of the top 100 influential Australian Twitterers",* while the victorious Prime Minister Kevin Rudd ranged far behind.[2]

3. Remoteness of personal identities

Twitter allows observing other human beings microscopically on the fine-grained level of their current actions and thoughts. These utterances have to be interpreted by their intrinsic meaning or by their logic of diachronic succession, because no integrative personal identity is displayed to which they could be related. By just reporting fragmented pieces about my current activities and thoughts, I do not have the means of conveying a preferred impression of my personality as a whole, and likewise, I do not run the risk of displaying a public identity which is at variance with my own ideal self.

This makes Twitter extremely different from Social Network Sites as well as Blogging platforms which oblige participants to define a personal profile and invite them to present themselves as particular personalities by explicating their values and preferences, propagating their friendship network and displaying pictures or biographical accounts.

As the *senders* have less to do, it is up to the *receivers* to construct an image of the sender's personality inductively by synthesizing all his or her postings to a coherent whole. This task may be cumbersome or even futile because the "data basis" consists only of a few tweets, because these postings are of an impersonal nature, because activities are more determined by situational conditions than by individual preferences, or because the authors are intentionally conveying a false image of themselves. In addition, a major leveling effect arises from the fact that the life of even the most outstanding individuals is filled up with trivial everyday activities and average thoughts by which they don't differ from very Mr. Doe or Mrs. Jones - so that they don't find a platform for presenting their particular qualifications.

Certainly, many posters will highly appreciate exactly this chance to express themselves straight away without having first to craft a personal online identity. As every participant is only salient as a provider of occasional Tweets, ever Twitter user can meaningfully relate to a much larger number of users than in Social Network Sites, where information about personalities has to be accumulated and mutual acknowledgements of affinity or sentiments of "sympathy" have to be developed in order to (pretend to) be "friends".

As most Tweets are only marginally shaped by the idiosyncratic identity of their senders: it is well possible to outsource Tweeting activities to subordinate assistants and employees. Such delegation may

[2] "A new way of governing" ... Kevin Rudd's new website." Fairfax Digital Nov. 13 2008. http://www.smh.com.au/news/technology/web/too-many-twitters-drown-out-rudd-website/2008/11/13/1226318798926.html

well be inescapable for securing continuous presence on Twitter, because in contrast to personal Websites, Blogs or Social Network Sites, such presence is completely dependent on continuous activity - which is difficult to achieve when posters go sleeping or when they have many other things to do.
Thus, any high ranking role incumbents like the president of the United States or the British and Australian Prime minister are well able to maintain a continuous Twitter presence, while they are more hesitant to maintain Blogs because this would imply more personalized efforts of their own and be more expressive of their personality (Owen/Davis 2008: 659). Insofar as Twitter is becoming a significant tool of political election campaigns, role incumbents will have a big advantage over contenders because they have access to such administrative resources.

4. Low threshold of participation

At least in highly developed societies, almost anybody is physically able to "Twitter" anytime and at any places, because so many technical channels are alternatively available, because writing such a short text takes very little effort, and reading messages is so easy that many of them can be absorbed within very short time.
In addition, communicative efforts are reduced because exchanges occur in a completely de-ritualized manner. In face-to-face encounters, participants have usually to "open a bracket" in order to define themselves as "mutually accessible": e. g. by directing gazes, formal greeting etc; and they usually finish their contact by a ritualized "Good bye" (Goffman 1971: 79). Twitter does away with all such ritualistic overhead: messages are reduced to their "real content", without any introductions and conclusions.
Thus, Twitter has the potential of expanding the total range of human communication by facilitating exchanges between actors with very weak social ties. For instance, commercial firms may be able to get critical comments from dissatisfied consumers who would never articulate their voice on any other channels (like phone, FAX, Email or traditional letters; Ojeda-Zapata 2008).

Similarly, individuals are better able to permeate all their daily experiences with collegial commentaries, opinions and evaluations: e. g. while attending a school lesson, watching a film on TV, visiting a foreign city, dining out in a hitherto unfamiliar restaurant or tasting a new brand of wine.

> *"Downs, a 25-year-old graphic designer, recently wrote a short post about eating at a local restaurant and not being too impressed. A friend responded, saying he liked the place. The two exchanged tweets about it. 'It's not a big-deal topic, but it's nice to be connected,' Downs said. 'You get to share something and get a response. It's fun.'" (Stickney 2008).*

Thus, Twitter may be more potent than other media to erase conditions of utter loneliness on and forever from my life: because wherever I are, I feel socially integrated by remaining embedded in a fuzzy cloud of potential communication partners - even when I don't know who will respond to my messages at which occasion.

For the same reason, Twitter can glue together centrifugal social aggregates as they emerge at large local gatherings (e. g. in conferences or vacation resorts).

> *"How many times have you met some folks at a conference but forgot to get their number and couldn't find them later when you wanted to grab a beer? If you hooked in with them on a Twitter a single message can tap everyone you've met making it easy to find one another. Meeting*

up with your friends would also be easier since you could simply Twitter your location or where you are heading and all of your friends will get the message." (Olson 2007)

In contrast to the phone or Instant Messaging, Twitter messages intrude much less into the life of receiving individuals because they can easily be ignored and remain unanswered. The reason is that they are directed to many recipients: so that it sufficient when few of them send an answer. (Osborne 2008).

"Twitter, unlike, say IM or Facebook, doesn't let my friends know if I'm logged in or not. So there's no expectation that I'll respond to @ messages or DMs instantly. This is a real joy, because it lets me use Twitter at my own convenience without the pressure of feeling like I'm insulting someone because I haven't responded to their message. It also keeps the feeling going that Twitter is like an ongoing cocktail party or water cooler conversation that I can wander in and out of at will." (Wolk 2008).

While Twitter is extremely functional to combine social participation with the maintenance of personal autonomy and the undisturbed continuation of social roles, it nevertheless draws away time and efforts from the same primary activities about which it helps to communicate to the outside world. For instance, participating in tweet exchanges during a TV discussion means that less attention is available to watch the screen – or to rely even altogether on secondary horizontal communications (Breslow 2008)

Certainly, there will be much pressure to facilitate communications further by software devices that convert spoken words into texts: so that even bus drivers or mountain climbers can easily participate without being diverted from their current role engagements.

5. On the virtues and perils of unimpeded immediacy

In a very general sense, the Internet makes the boundaries between private and public spheres much more permeable: by empowering users to transport their personal life experiences, thoughts and emotions (as well as their private photographs, videos or sound recordings) directly into a worldwide public sphere: without delay and without the filtering and censuring by any intervening agencies or institutions (Geser 2002).

In the case of personal Websites, Facebook entries, Blog contributions or Email postings, however, such expressions are usually delayed and reduced by various technical as well as cultural factors: e. g. by the current unavailability of online connections, by the effort it takes to write a coherent discussion statement, by complex self-reflections necessary for defining the personal profile, or by sophisticated judgments needed for specifying formats, colors and graphical features of a personal site.

By doing away with all such overhead activities, Twitter offers the most immediate way to transfer information from the most personal sphere: highly authentic information likely to mirror current inner emotions and reflections as well as external observations and experiences on a Real-Time basis.

This spontaneity is most clearly seen in cases of sudden catastrophic events when Twitter messages emitted by victims are the first public information available that (and where) it has occurred. Thus, news about the earthquake in China (in Spring 2008) has spread on Twitter before it became known to

the US Geological Service[3]; and the Mumbai terrorist attacks (in Nov 2008) as well as the airplane plunge into the Hudson River (Jan. 2009) were first publicized by victims and bystanders emitting Tweets, not by any conventional media reporting (Arthur 2008; Sander 2009). All these cases illustrate the trend that traditional formalized institutions and professional specialists (like reporters) lose their control over "breaking news" because they are outpaced by lay persons disposed to report with least delay and most authenticity: the victims or accidental bystanders.

Whenever an event occurs which affects many people in different places simultaneously, Twitter is a means for gathering basic information and reaction from very different sources in very short time.
In such cases, conventional "top down" information generated by professional journalists and PR staff is outperformed and marginalized by "bottom up" communications stemming from individuals who make their own observations and thoughts and who are personally affected and involved. In comparison to traditional media reporting, a more encompassing and unbiased overall picture is likely to emerge, because data originate from many different sources - for individuals and groups located in remote rural places that would never be covered by conventional mass media reports.
For journalists, therefore, Twitter has the capacity to become one of the very primary news sources that have to be watched permanently in order to remain in real-time contact with unfolding events. This is particularly important in cases of events that happen unpredictably and in remote places where no professional journalists, but only lay users are available for first-hand reporting.
Journalists reporting about ongoing events will be pressed to assume themselves a new role as "tweeters". They may earn money by people who become their "followers": *paying* fees for getting the reporters' short messages just at the time they are watching the unfolding event (National Press Club 2008). Evidently, such journalists are likely to be bombarded with inquiring requests: so that users become empowered to influence in detail their ongoing activities (e.g. the kind of data they are collecting and the kind of subjects they will chose for interviewing).

The same capacity of instant molecular messaging to subvert formal structures by undermining conventional top-down communication could potentially also well be realized within specific institutions: e. g. scientific congresses or schools. For instance, Twitter may be used by students for feeding back their immediate reactions to lecturing teachers. Traditional monological lectures could thus be turned into interactive sessions: as teachers see tweet messages from their recipients on a screen while they are speaking: providing an immediate feedback to what they have said 20-30 seconds ago.
By using such potent back channels, much more feedbacks could be expected than under conventional settings where students are given the opportunity to ask questions after the speech, because even shy students will post tweets when they can do it anonymously, and many of them can send postings at the same time because there are no time restrictions as they exist in oral discussions. Lecturing professors would be enabled to adapt very flexibly their ongoing presentations by reacting to messages that ask for more clarification, criticize a specific assertion or propose the inclusion of additional points.

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[3] Twittering the China Earthquake.Webs@Work *May 14, 2008*
http://blogswork.wordpress.com/2008/05/14/twittering-about-the-china-quake/

In addition to such bottom-up communication, Twitter could also be used as a tool for "horizontal whispering" by facilitating student-to student exchanges during formal lessons. In traditional school settings, students have little opportunity to exchange opinions among themselves. "Whispering" is usually taboo for two reasons: because it is felt as an acoustical disturbance and because it manifests a lack of due discipline and focused attention. By means of Twitter messages, listeners would have much less obtrusive way for enriching monological lectures with mutual conversation: e. g. by verifying mutually that they have not well understood certain points, that they all disagree with a specific argument, that they have detected inconsistencies within the teacher's presentation or contradictions to what other reputable knowledge sources say. Thus, recipient listeners can finally eliminate their mutual isolation that makes them so vulnerable to the teacher's persuasion. Schools may be well advised to use such horizontal inter-student exchanges as a resource for improving school learning, instead of discouraging and punishing it as an irritating disturbance.

Of course, a very similar empowerment is accruing to TV watchers or radio listeners who could instrumentalize Twitter for changing from a couch potatoe existence to a more active co-participatory role: by feeding back their spontaneous reactions to the sender as well to many other (known or unknown) recipients on a Real-Time basis.

Given the low threshold of sending and reading messages, the potential for "flamings" is even much greater than in the case of Email messages or Blog entries (which are similar to conventional letters in demanding the drafting of a more complex piece of communication). This risk of getting involved into spirals of self-escalating conflicts makes Twitter unfit for discussing highly controversial (e. g. political) matters (Lynch 2008). On the other side, however, Twitter invites people to articulate their bilateral conflicts in multilateral group settings: thus increasing the chance that moderating and mediating "third partners" will become active (Trombly 2008). While erroneous and emotionalized expressions are very likely to occur, this handicap may well be offset at least partially by the rapidity with which responses are evoked that will counteract or correct such dysfunctional communications. Therefore, a genuine kind of "swarm intelligence" may be unleashed that is well compatible with rather hasty and irrational individual contributions.

6. Coordinated collective responses without leadership and formal organization

It has been observed that one of the most significant innovation of the Internet is the fact that it has finished a two hundred year's evolution where only communication channels from *one-to-many* (mass media) and from *one-to-one* (Telephone) have been technologically developed, while *one-to-many* and especially *many-to-many* communications had still to rely on low-tech or even no-tech procedures (e. g. applause or mass mailed-outs; Geser 1996).

	to one	**to many**
from one	Telephone	Mass media
from many	Internet / **Twitter**	Internet / **Twitter**

Seen in this wider perspective, Twitter has an even greater capacity than other Internet-related applications to support these two latter modes of communication, because it takes so little time and effort

to compose as well as to read messages, so that an individual is easily capable of following the postings of very many others – without being absorbed so much by reception that no time is left for sending answers.

The *"many-to-one"* capacities are illustrated by Twitter press conferences where a large number of most peripheral lay participants can get a feeling of being actively involved: insofar as there is a chance that their Tweeted question gets read or even answered (Baratz 2009). The even more impressive *"many-to-many"* potentials can be exploited in larger groups and organizations where Twitter may offer the only – or at least the far most efficient way - to realize 100% reciprocal connectivity even when the number of members is rather large: in the sense that every member regularly posts messages to all the others. Thus, Twitter can help larger collectivities to function similar to much smaller groupings: by maintaining densely knit webs of mutual cognizance and interaction. Therefore, even larger groupings get the potential to schedule very short term gatherings and micro-events ("tweetups"; Stamatiou et. al. 2008) and organize quick collective responses to ongoing events or developments (e. g. in the case of demonstrators who respond to police actions by immediate tactical moves).

Within predefined collectivities (e. g. voluntary associations), multilateral short message tools are excellent in facilitating very quick opinion polls on current issues: by asking members to report not only yes or no answers to binary decisions, but also more complex orders of preference or intensities of liking (e. g. on scales ranging from 0 to 10). For the same reason, Twitter is increasing the likelihood that under any condition where many people wish to engage in a collective action, such an action is also realized: because

- every single user can easily become an organizer, even without any conventional skills of leadership and administration.
- so little time and effort is needed to be a "follower": i. e. a co-participant in a collective campaign.

This low need for organization is illustrated by the American "don't go" movement in Summer 2008,, when Twitter was flooded by posts from users seeking to force a vote on new oil drilling during the House's recess in August.

> *"The 'don't go' movement was a moment for a lot of online conservatives to discover each other," Sifry said. "It showed how several thousand people could coordinate quickly and without any centralized command headquarters." (Breslow 2008).*

As a consequence, Twitter certainly promotes a highly emotionalized grass roots politics emerging from immediate reactions to current events and development as they are dramatized by mass media. Such collectivities are likely to remain cloudy "virtual mobs": without any organization whose rules and goals are visibly explicated, without formal members that can be made responsible, and with no formal leaders that could be co-opted or participate in negotiations.

In contrast to USENET and Social Network Sites, Twitter does not provide tools for building collective entities (like virtual groups, communities or organizations) that would in any way transcend the persons involved. There is not even the notion of a "thread": i. e. a chain of messages aggregating around a specific topic. Instead, all communication remains on the level of interpersonal exchanges of messages that remain organized around specific persons.

> *"Twitter thrives with its focus on personal events. People keep up with other people on the small scale. There isn't much of a global community so the focus is on people having conversations, and posting to each other, not some collective whole. The idea of a thread is absent here be-*

cause posts are tied to users not to topics. The ability to reference other users allows for a primitive chain of conversation, but it takes a lot of work to follow. It is more natural to track all the updates of a person, giving it a more holistic view of individuals instead of glimpses on various posts. The lack of conversational tools leaves personal events and announcements as the bulk of the postings." (Stamatiou et. al. 2008: 24)

While twitter has little intrinsic capacities to facilitate group formation, it is a medium that is particularly prone to be adopted by already existing collectivities with neatly circumscribed member bases who share a specific culture: firms, institutions, committees or voluntary associations.

7. Signaling and alerting functions

In sharp contrast to the phone which intrudes into my privacy or the public street poster which conveys an advertizing message from which I can hardly escape, the Internet is a soft "pull medium" where the user decides autonomously which information they want to receive at what point of time. As a hybrid medium combining Net functions with the phone, Twitter certainly adds a "push" aspect insofar as users open themselves up to receive any updates from any of the people or institutions they currently "follow".

Adding the limited complexity of transmitted information, it is evident that Twitter tweets are highly disposed to be used in a *metacommunicative sense*: as signals with the purpose of alerting recipients to specific events, or of directing their attention to other media which convey richer sources of information. Therefore, it is used by CNN, the New York Times, and other media as a "news ticker" with a link that invites them to visit the longer story on their Website; firms use it as a cheap and rapid way to disseminate information about new products**,** and Airports (like LaGuardia NY) for alerting passengers about delayed flight departures.

Recipients, clients and customers can be targeted rather efficiently in this way, because most of them are able to receive the messages anywhere and anytime (by mobile phone).

"Both Amazon.com and New York Times utilize Twitter as another distribution platform to send their audience updates. For Amazon.com, this means pushing out news about their news sales (Gold Box), while the New York Times publishes their latest headlines. For them twitter is based used as a one way micro blogging platform, This is definitely not very 'social' media, but it allows yet another route by which to reach their audience in a relatively low cost (same mechanism as an RSS feed) method. They are embracing the idea that they benefit from being present wherever and how ever people view and digest information, specifically their information." (Riveong 2008).

Similarly, Bloggers can use Twitter as a device for informing their public that they have posted a new article (Stamatiou et. al. 2008) - as well as for displaying proud statistics about how frequently the link to their Blog has been forwarded by Twitter (Cunliffe 2009).

Within formal organizations, employees could get a tweet indicating that an important Email of their CEO has just arrived on their computer which they should carefully read. Such signaling messages are certainly useful (or even indispensable) at a time everybody is constantly bombarded with spam mail and various unimportant messages: so that even employees who are constantly online cannot be expected to consult the real important messages within short time (Cashmore 2008).

For leaders of any kind, Twitter messages may well be used for purposes of "Agenda setting": by alerting masses of people to certain issues they wish to set into the center of public attention and discussion. By doing this, they may generate a fertile ground for further communication that spills over into other media channels where no such cruel 140 character limits hold.

As we all know, all information repositories and communication systems need to be controlled and administered by second-order information systems where the addresses are specified under which the primary (first order) data or communications can be reached. Thus, a library without a catalogue would just be a chaotic heap of books, a scientific congress without a program just a disordered manifold of gatherings and oral presentations; and a population without telephone numbers and postal addresses just an aggregation of human beings unable to realize the mutual contacts to which they aspire. Similarly, contents on the Internet are only retrievable because they are all interlinked on the basis of URL's - which are again connected to IP numbers which are listed and regularly updated in the mediating routers.
The more these primary repositories increase, the more these higher level address systems become indispensable: not only as catalogues for providing access to the first order contents, but also as generators of signals that can be used for exerting power and influence by directing the user's attention. For instance: when the number of Internet traders or Blog writers rises to the millions, it becomes ever less attractive to be just one of them, but ever more attractive to become a guide able to inform many others that a specific useful website or web offer exists and to persuade them to make a visit.
In conventional media systems, power by directing attention is usually highly centralized: accruing to potent advertizers who market their products or to major newspapers or TV stations able to influence politics by "agenda setting" (by determining about the issues that should (or should not) be the topic of public deliberation). In the Internet, such guidance functions seem to become decentralized in the same way as the production or primary contents. A case in point is "Twitter" where potentially everybody can usurp the status of an opinion leader by collecting a large number of followers whose "eyeballs" can be directed to any topic, information source or web address at his (or her) personal will.
In other words: the rise of Twitter illustrates the democratization of "push advertizing" (and propaganda) that is a logical functional correlate of the decentralized WWW. It follows the radical devolution of "pull advertisements" (exemplified by Craigslist).

8. The need for semantic embedment and prespecifications

Given the shortness of single Twitter messages, it will often not be possible to assess its precise meaning, because author identity, time, place and situational conditions of its origin are not explicated and the terms used not sufficiently defined. In particular, there is no space for accompanying the message with metacommunicative specifications (e. g. by relativizing an assertion, signaling irony, or by emphasizing the urgency of a plea).
For knowing exactly what a single message means, it is necessary to relate it to already existing knowledge about the larger context in which it is embedded:
- by considering previous messages coming from the same source;
- by understanding it as stemming from a person who shares the same culture as the receivers: their values, habits and all the meanings associated with verbal terms and expressions;

- by relating it to highly specific environmental conditions or problem definitions currently shared by all communicators.

These three sources of specification are substitutes. For instance, the less I know the sender of a tweet, the more I have to rely on his previous messages or on identical environmental conditions. And the more all participants share a common environment, the better they will decode the meaning of their mutual messages correctly without any previous acquaintance and interaction.

Therefore, optimum conditions for Twittering exist in situations where conventional institutions and media have already created a space of highly specific shared meanings, mutual understandings and structured expectations: e. g. in U. S. presidential elections where everybody waited for Obama to announce his candidate for vice presidency by a Tweet, or at Obama's Inauguration where Twitter served to accompany the TV broadcast with a wealth of spontaneous commentaries. This latter event has shown that in contrast to other Web services with larger bandwidth, Twitter runs without down-time even under very heavy loads of traffic (Franke-Ruta 2009).

Similar conditions hold for mutually well acquainted members of stable teams are working within a highly stable environment where only well foreseeable, highly specific events, developments and problems arise. In such cases, even very short messages are well understood because they are based on a highly "restricted code"[4] of well-defined consensual words and expressions.

Such conditions may at least approximately be fulfilled among

- family members who share a microculture of mutual understanding;
- people watching a specific event or TV broadcast (e. g. a football game or a discussion between presidential candidates);
- employees working on a common project, with identical procedures, technologies and goals;
- members of a "community of practice" who share identical problem, concepts, methods and goals;
- individuals homogeneously socialized within a specific culture or institution.

In all such cases, understanding can be based on very few words, as there is no need to elaborate the definitions of terms, to explain reasons why certain opinions are held or certain hypothesis are asserted – because all participants can rely on the premise that such interpretations are consensually shared. This may explain why Twitter usage is particularly high in Japan, Italy and Portugal: three countries in which most of the populations share a rather homogeneous intranational culture (Osborne 2008). In addition, it explains the extensive use of Twitter among stock exchange brokers and the Securities and Exchange Commission (SEC). (Trombly 2008) as well as its application in sports media: e. g. in the case of a Washington Post reporter crew who use Twitter to keep fans updated about all events associated with the "Redskins" (football team) (Mascott 2008).

For similar reasons, Twitter has become almost indispensable for all sorts of rescue organizations (like the Red Cross; Doll 2008*)*, because any catastrophic event creates a highly specific common environment that facilitates very short communications.

On the other hand, Twitter is much less adequate for highly explicit, elaborated conversation: e. g. in cases of intercultural exchanges, where there is a need to use an "elaborated code"[5] clarify terms or to add metacommunicative specifications. For the same reasons, it is not useful for any kind of narrational communication: for telling stories or for purposes of debriefing. This also implies that when a new participant enters online communication (or when an existing actor initiates a new topic),

[4] A term coined by Basil Bernstein 1964.

[5] Bernstein 1964. op. cit.

there is an initial phase when traditional Websites or Blogs are more adequate than Twitter because new ideas have to be expressed that need rather elaborated verbal explications (Wallace 2008).
For the same reasons, Twitter is a most "ahistorical medium". While tweets can be technically stored for indefinite time like Email or Blog entries, there is often not much reason to do so, because when they are read months or years afterwards, their meaning is hard to assess as the situational context of their origin can no longer be reconstructed.

9. Conclusions

By continuing the unforeseen success story of short telephone messages (SMS), Twitter illustrates that rule that media with very low bandwidth can assume highest significance in social life, because given their low cost and ubiquitous presence, they can more easily and more extensively be integrated into social interaction processes and role systems than more sophisticated (e.g. multimedia) technologies.
By lowering the threshold for sending and receiving messages, Twitter contributes to the Real Time omnipresence of the Net even on the very lowest "molecular" levels of (hitherto private and covert) individual and social activities, reflections, emotions and communications - thus boosting additionally their propagation in the public sphere which has already been enlarged so much by the conventional services like Email and the WWW.
On the other hand: by its capacity to generate masses of asymmetric leader-follower relationships, to facilitate spontaneous Real-Time utterances and to provide push signals for directing attention, it is highly complementary to most other Internet applications that emphasize more symmetric communication, delayed asynchronous messages, primary content features and user driven "pull" capacities which all contribute more to the centrifugal complexity of the Net than to its centripetal integration. Thus, Twitter may survive and expand because there are so many followers looking out for guidance about what is important in the RealWorld and in the Net, and because there are so many leaders eager to acquire the most influential status to be gained in the Net: the status of an opinion leader whose Tweets cause thousands or even million of followers to direct their attention toward indicated events, issues, or information sources.

Apart from such functional uses, Twitter may also become significant by giving rise to a "laconic verbal culture". Certainly, it is likely to catalyze mental reflection insofar as it forces everybody to filter drastically what is communicated and to encode thoughts in very short language. While most other online text channels lose originality and attractivity because the same materials are simply reshuffled eternally by “copy and paste”, the world of Tweets is a separate sphere of verbal expression: set apart by extreme message length limitations.

> *“The short messages force publishers to write for the medium, making tweets far more to-the-point than RSS headlines, scraped from other media, have been.” (Niles 2009).*

Such conditions may be favorable for the reinforcement or rejuvenation of traditional cultural forms that also rely on scarce means of verbal expression: e. g. Haiku poetry, xenies and epigrams; and we may agree with Andrew Keen (2008) that

> *“Both Wittgenstein and Nietzsche might have been challenged by Twitter's aphoristic culture.”*

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