Jesper Tække

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Chat as a technically mediated social system

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This paper provides an analysis of chat as a technical media for communication. This is realized using the strategy for analyzing that I have called Media Sociography (Tække 2006). The Media Sociography is a synthesis of Medium Theory and the Systems Theoretical Sociology of Niklas Luhmann. The aim of the paper is to describe social reproduction under the constraints of chat, but also to show that Media Sociography can provide a unified theoretical framework for CMC-studies. The paper is also indented to provide an introduction to the Media Sociography for an English speaking public.

Keywords: Chat, Medium Theory, Systems Theoretical Sociology, Computer Mediated Communication, Media Sociography.

1. CONTENT

This paper is structured in three parts:[1] The first (section 3) provides an introduction to medium theory, which concludes with the presentation of a spectrum of parameters that together provide the description of a technical medium's *communicative space*. After that, this part introduces the systems theoretical sociology of Luhmann, and goes into details about communication as the core of the social process. The social process is seen as the subject for the creation of a *border of meaning*, which determines what communication can be about, and how it can be processed (in what tone). Next, the core of media sociography is explained, by presenting three different types of media: *perception media*, *reproduction media* and *technical media for communication*. These concepts build partly on medium theory (the communicative space) and partly on the sociological systems theory (the communicative ne-

1. This text is based on a paper (Tække 2004a) I presented at the annual meeting/conference of the Association of Danish Media Researchers (Sammenslutningen af Medieforskere i Danmark, SMID), 27 and 28 October, 2004, in Ebeltoft.

gotiation of the border of meaning), and bind the two theories together. The second part (section 4) is about chat, and draws on Computer Mediated Communication (CMC) studies, providing documentation on how the different technical parameters, that together create the communicative space in chat, appear. This part refers to exemplifications of many of the special technical possibilities that the communicative space of chat provides. The third part (section 5) is an investigation of how the social process is actualised in the chat medium. It builds on the theoretical description of social systems, and integrates the CMC findings to explain the nature of the communication process in chat, and paints a picture of how borders of meaning are produced and maintained in chat. Moreover, the scope of the chat medium becomes especially clear in comparison to face-to-face communication and communication in other technical media, such as Usenet newsgroups. The second (section 4) and third (section 5) parts also draw on one of my own empirically documented chat studies, consisting of a one hour chat log from the IRC Undernet on the #CyberCafe channel. This paper only presents small excerpts from the log, but the whole log can be assessed on the internet, in Tække (2004a). The conclusion (section 6) picks up on how media sociography succeeds in providing one unified theoretical framework for CMC.

2. INTRODUCTION

The chat medium is a borderline case for the conditions under which it is possible to build and maintain a community. Questions about how chat is performed are described from many different angles and perspectives in CMC studies.[2] However, these studies do not really outline what chat is as a unified whole, because they are based neither on medium theory nor on sociology, even though their topic is *mediated social processes*. The CMC studies are not problematic in themselves; for example, they describe linguistic studies of the language employed in chat. Nonetheless, from my perspective, no CMC stud-

2. In my definition, CMC research consists of a handful of single-disciplinary research fields: Ethnography (Danet 2002b, Reid 1991, Baym 2000), Linguistics (Hougaard 2004, Rintel et al. 2001, Herring 1999), Social Linguistics (Paolillo 1999, Danet et al. 1997, Hentschel 1998) and History (Stenberg 2002, Hauben & Hauben 1997). It is also possible to describe the CMC field as the collection of studies that relate to all communications that came into being online, for instance, gender (Rodino 1997), race (Burkhalter 1999), and identity studies (Donath 1999, Bechar-Israeli, 1995, Turkle 1995).

ies display what chat essentially is, nor do any of them provide a unified theoretical framework for the many findings in the CMC studies.

This paper addresses these problems by employing *media sociography* as a theoretical framework. Media sociography is a strategy for analysing and describing the social with regard to media (Tække 2006). It provides a special *interpretation* and *synthesis* of systems-theoretical sociology and medium theory. The term *medium theory*, coined by Meyrowitz (1994),[3] describes media as providing the milieu in which humans perceive, understand, communicate etc. *Systems theory* (Luhmann 1995, 1999) contributes a sociological theory that takes its point of departure in communication, and includes both a micro- and a macro-analytical level, as well as an abstract concept of media. The synthesis of these two theoretical paradigms in this paper makes the analysis of chat communication possible, and provides a proposal for a unified theoretical framework for CMC studies. In the analysis, studies of computer mediated communication from the literature are included, together with my own empirical studies.

3. MEDIA SOCIOGRAPHY

In this section, media sociography is outlined, starting with medium theory (3.1.) and the systems theoretical sociology of Luhmann (3.2 -3.). Then the three core concepts of media sociography are outlined: perception media (3.4.), reproduction media (3.5.) and technical media for communication (3.6.).

3.1. Medium Theory

In medium theory, the concept of media is always about aspects of mediation related to specific technologies, and for most theorists it is also about social implications of a specific medium (e.g. Meyrowitz 1985). Medium theory addresses various attributes of a specific medium, and also addresses the influence of the contemporary media matrix and former media matrixes (a media matrix is the constellation of all existing media at a specific moment in time,

3. Meyrowitz first used the term *medium theory* in the book: *No Sense of Place* (1985: 16). I use medium theory to describe a special interpretation of what is normally referred to as the Toronto School, The Canadian Media Tradition, and Media Ecology.

Finnemann 2001). To analyse a specific medium is to look at its mediacy (Brügger 2002) or the communicative space related to it, or to the media matrix of which it is a part (Finnemann 1997, 2001). To pinpoint mediacy or the communicative space of a Technical Medium (TM), it is important to ask analytical questions that enable an understanding of the part the TM plays in the reproduction of social systems. Two of the classic questions are: Is the TM cool or hot (McLuhan 1967)? Has the TM a bias towards time or space (Innis 1959)? Brügger (2002) presents a framework with three areas (production, distribution and consumption) and eight variables (matter, space, time, movement, accessibility, hardiness, symbolic format and ability to change). This produces a very rich analytical framework, but it is constructed only for what might be called hardcore media studies. This framework outlines only the medium itself, and is explicitly not constructed for the study of the interplay between the social and the TM. Brügger asks questions such as:

> 'What is the substratum of the medium, how does it make the production of material content possible, and what is this material content?' (Brügger 2000: 51).

The material content must not be confused with the meaning content; the former is, for example, ink, a substance that is put on, or printed on the substrate medium, for example, paper. It is also problematic to establish a fixed list of parameters, because the potentiality of TM is a dynamic size variant in relation to the social system, which loosely couples[4] the TM to new social functions that can only be initiated because of the social experiments within the scope of the TM (Baecker 2000; Tække 2003, 2004d, 2005a, 2006).

In medium theory, however, there are many findings that can be used inductively as parameters in a more intuitively formed spectrum of questions for the social analysis of TM. One question that we know is always important is '*how difficult is it to learn to code and decode* the TM?' (Meyrowitz 1994). This aspect addresses the selectivity of the TM, which describes who is able to

4. Here I use Heider's (1959) terminology, in which a *medium* is a loose coupling of elements, while a *thing* is a rigid coupling of elements. In Luhmann's interpretation, the concept of *thing* is replaced with Spencer-Brown's (1969) concept of *form*. This theoretical move enables the form/medium analysis that Luhmann, for instance, uses in *Die Gesellschaft der Gesellschaft* and that has inspired many; for example, the articles in Baecker's anthology: *Problems of form*.

handle it; consider, for instance, the difference between learning 28 phonetic letters or 40,000 Chinese characters (Ong 1982).

The *expenses* with regard to TM are also central, for instance, who can afford a computer with a network connection (e.g. Castells 2003 and the digital divide).

Determining the *directionality* of the TM is vital for describing the communicative space. The question is whether the TM is single-, bi-, or multidirectional (Meyrowitz 1994). Framed in another way, we can ask if the *interactivity* provided by the TM is transmission (in the sense that there is no possibility for response), registration, consultation or conversation? (Jensen 1999). These questions offer an idea of how many people are able to attend to the same message, whether everybody can reply, etc.

Another vital question is about the *durability* of messages in a TM (e.g. Ong 1982, regarding the consequences of the temporary and transitory nature of utterances in oral language). In relation to this question, the question of *retrieval* must also be considered, for instance, whether the TM provides for the possibility of making index and reference pointers, or for desequencing and resequencing messages (Foulger 2003). As with time-related aspects of the communicative space associated with TM, the question of *synchrony* is important too. Does the TM give synchronous, asynchronous, near-synchronous, or super-synchronous interaction (Foulger 2003)?

The last issue to put forward regarding medium theory concerns the concept of *remediation* (Bolter & Grusin 1999). The question could be framed thus: 'what does it mean that social interaction is remediated in chat, or what does chat, as a remediation of writing, imply for social interaction?'

To sum up, by using medium theory we can describe the *communicative space* of a technical medium for communication by answering questions about code, expenses, directionality, durability, retrieving, synchrony and remediation. However, medium theory does not tell us about the social process, or why media sociography also builds on the systems theory of Luhmann, which supplements the medium theory in this regard.

3.2. Communication – System Theoretical Sociology

Luhmann (1995: 271) describes social systems as systems that reproduce themselves in the medium of communication. Because it is only communication that communicates (448), social systems are self-producing and operationally closed autopoietic systems. This, for many, may sound alienating or at least complex, but if *communication* is to be built into the formation of sociological theory as something that matters, it is a sine qua non condition. The theory is best understood if we look at Luhmann's definition of communication. Communication is described as the unity of three selections (140, 147): the selection of information, utterance and understanding.

Based on Bateson's definition, *information* is defined as *a difference that makes a difference* (40). If you want to say something about the world, you have to accept that there is knowledge about it, and therefore to say something about it is to mark a difference to what else could be said (141).
To let other persons know about your information you have to *utter* it, for example, with your voice. It can cast light over these two concepts to think of them in Saussurian terms, namely information as the signified, and utterance as the signifier (Saussure 1966: 66).

For Luhmann (1995: 140), the decisive aspect is that *understanding* is based upon a distinction between information and utterance. For example, we do not recognise a knocking sound on a door as just a rhythm or a noise, we differentiate the utterance (the sound) from the information (that somebody wants to enter the room). Thus, understanding is always based on a distinction between information and utterance, and every time it happens we have the construction of a social element, a communication element. This is also the explanation of why only communication communicates, why the social is autopoietic: it is up to another person to mark the difference between your utterance and your information – he or she must select an understanding, taking into consideration what has been said before. That is, *you cannot determine what the understanding of your utterance is going to be*, you must wait to hear the answer. This makes communication a chain coupled in retrospect, where the coupling of a new link in the chain is decided by a subsequent communication. Somebody has to link to what you are saying before your statement can be said to be a part of the social system. But this person is

in the same situation as yourself, therefore the social system is a system in its own right, creating its own reality, building its own complexity.

Social systems create complexity, but as Luhmann (1995: 26) says, the only thing that can reduce complexity is complexity. This means that when we have created complexity – for instance, by saying a lot at a meeting – we must say even more to reduce the complexity. We must draw conclusions and decide what is decided, who will do what, etc. In the social we meet complexity as a contingency which is defined as that which is neither necessary nor impossible, but which could also always be different. That is the possible space of the social (106).

The basic concept that Luhmann uses is *meaning*, which is defined as the distinction between actual and potential (74). To make the concept of meaning easier to understand, we could say that it is a relation between what is actual and what is possible, what is the case and what is not the case, but could have been. For instance, if I give a student a 'B-' mark in an examination, she would understand this 'B-' because it is not a 'D' or 'A' or any of the other possibilities. Now we can also see that *information* is only one option out of a whole spectrum of possibilities (F, D, D+, C-, C, C+… A). This is also the case with an *utterance* (do I look the student in the eyes when I give the mark, do I send the examiner to give it etc.). Also, a given *understanding* is only one out of a spectrum of possibilities (does the student think that it is fair? or, for instance, that the last time she had a mark 'B-' she was much better than this time? does she think that this 'B-' was too little, and that I knew it because I sent the examiner to give the mark? etc.).

Luhmann says that, through the process of communication, the difference between information and utterance is altered to the difference between acceptance and rejection of a *meaning proposal* (149). Therefore, we can speak of the social process as one of condensation and cancellation of meaning proposals, building up and modifying the social structure. If we think about what a system is, we can say that a system is what can differentiate itself from its environment. This is possible because the system is defined by what is condensed and negated in the system. In the process of establishing communication norms for what can be communicated and how (in what tone) it is created, so the history of interaction is the structure of the system,

which I define as *the border of meaning*. The border of meaning is the sociological core concept of media sociography, while the communicative space is its media theoretical core concept. The way the sociological core concept is used in descriptions of technical media is that the social systems are seen as *self-organising interaction systems* that process through a TM, producing and maintaining a border of meaning. That the systems are seen as self-organising interaction systems means precisely that they use their own history of interactions by which proposals of meaning have been accepted or rejected, as their border of meaning. They organise themselves using the condensations produced through former interactions, which define about what they can communicate, and how.

3.3. Mediation

For Luhmann (1999) it demonstrates a reduced understanding of the concept of media to see only communication technologies as media. The functional systems of society – for example, the legal, the political or the economic systems – process through different symbolic generalised communication media (see Tække 2004, 2005b, 2006). But Luhmann (1999, 2000a) also has a totally abstract concept of media, one in which a medium is always seen in a relation to a form within it. There are only forms within a medium, and media only exist as such because of forms (Luhmann 1999, 2000a with inspiration from Heider 1959, and Spencer-Brown 1969). An example might be a footprint in the sand on the beach: The sand consists of loosely coupled elements which are structured by something more solid that has been imprinted on it, the foot. The sand becomes a medium because of the form imprinted in it, and the footprint as a form exists only because of the sand as medium. Another example is language, that is the medium for the forms of words. Without language there would be no words, and without words there would be no language. The logic of this concept of medium is the same as that in the concept of meaning, the medium being the possible, and the form being the actual (Luhmann 2002).

3.4. Perception Media

In media sociography, *perception is always the capability to differentiate - the capability to mark a difference*. A part of this capability is evolutionarily developed, so we, through our different senses, can differentiate. To use a perception for further operations, *meaning* becomes important – you remember that this is the possibility of differentiating between actual and possible – and this element in perception comes from our history of socialisation in a society that developed semantics during its social evolution.

To see a table is partly to make distinctions in the perception medium of light, and partly to understand that it is a table. If we did not know about tables we would probably make the distinctions in light in another way, and not see the table, or see it as something else. Viewed basically and logically, perception is the recognition of a figure on a ground, and to do that depends partly on the capability of differentiating through one of the senses (see, hear, feel, smell or taste) and partly by recognising and differentiating amongst the distinctions we perceive through comparison with memory (making sense of or giving meaning to phenomena). For instance, if we touch an object in a dark room, our fingers feel distinctions; maybe the object is smooth, round, soft and light. Using our semantics, we would say that it is a ball. So, perception is the capability of making distinctions, and if the distinctions are to make any kind of sense, we must think of them in relation to meaning, which in media sociography is framed as a kind of reproduction medium.

3.5. Media of reproduction

The media of reproduction are life, consciousness and communication. Life is a part of the surrounding world. We can say many things about it, but only with regard to what is meaningful. That is, that at least for media sociography, it is a thing in itself that is counted as a precondition for the processes that the theory describes.[5] Consciousness and communication are in focus,

5. Of course we might describe the biological level of systems formation with the theory that the genetic population is the medium and the phenotype the form in that medium, for example, and use a Darwinist theory for describing the condensations as the survival of the fittest, but we won't.

and both can be described as meaning processing systems, or as *systems that handle complexity through the form of meaning*. The form of meaning is, as stated previously, the difference between, or the relation between actuality and potential. We ascribe meaning to the actual by simultaneously comparing it to what it is not, or could have been, or used to be, or could be imagined to be the case. If we take the earlier feeling-the-ball-example: the thing is not square, but round, so it must be some kind of ball; it is not rough, so it is not a leather ball, so perhaps it is a plastic ball. The social level of system formation reproduces itself through communication as the medium of reproduction. We can differentiate between various social levels such as society, functional systems, formal organisations and interaction systems. When looking at chat, the most appropriate social level is what I term a *self-organising interaction system* (as described in 3.2., and to which we return in section 5). Self-organising interaction systems reproduce themselves through the medium of communication, where, through earlier interactions, they have been building at the border of meaning, which creates their medium (their social possibilities) through new formations (social actualisations). Every time a new communication is connected to, the social medium is changed; either by a new condensation such as 'this is still the way we think about this topic', or, 'this we do not mean about that', etc. The question of media sociography then is: *how does the medium of social reproduction process in a specific technical medium*? Before we can say anything about this, we have to look into what a technical medium is.

3.6. Technical Media for communication

Technical communication media (TM) are always seen as *combinations of the two basic types of media*: Perception is the capability to note a difference, and meaning is the capability to handle complexity through the difference between actual/potential. TM make it possible to differentiate over distances in time and space, and also outside the present and the natural sphere of interaction. They provide the capability to store, structure, organise, categorise, retrieve, etc. One way to describe TM is to look at the constraints TM sets for social systems. This approach is adopted from Luhmann (1995), who, with regard to the question of complexity, explains how social systems, by selection,

give themselves constraints. Constraints are seen as the only way to handle internal complexity in the system, because if all possibilities are open, the system becomes paralysed. Therefore, every selection means that the system, on the one hand, decides not to take a domain of possibilities into consideration, which, on the other hand, means that the system can build up complexity in a more limited and specified field. The conclusion is that the precondition for building up complexity is the reduction of complexity. Seen this way, social constraints are the precondition for doing anything at all. The border of meaning in a social system is a socially constructed constraint that the system has determined, and which describes about what it can communicate, and in what tone.[6] When looking at TM as setting constraints for the social process, we could say that the TM are as they are, they are not flexible like a medium of reproduction.[7] But TM provide a communication space that the social systems must learn to use, that is, in which to process. This means that the communication process evolves in the medium, building up its complexity within the constraints set by the specific TM. For instance, when society had only oral language as a TM, the only way to store knowledge was to repeat it over and over again (Ong 1982).

To put it all together, TM furnish social systems by providing capacities within the constraints for the handling of complexity in the form of meaning. If we again consider the footprint in the sand on the beach: The sand consists of loosely coupled elements, which are structured by something more solid that has been imprinted into it. That we have any ability to distinguish it from the rest of the sand has to do with perception. That we recognise it as a footprint has to do with semantics. And we see that the sand becomes a medium because of the form impressed in it, and that the form in it depends on the sand as a medium. However, the footprint in the sand is neither pure perception nor pure meaning. It is a TM that can be used by the hunter to track ani-

6. The border of meaning does not paralyse the system, but gives it the necessary constraints for processing at all. Setting this constraint means that there is an uncertainty left for further negotiations about meaning, that is, for the production of complexity that is relevant for the system and attracts humans to contribute to it.

7. However, the possibility space created by a TM must be seen in relation to social systems which seem to be able to just go on finding new ways to use TM. For example, the printing press has continuously been used in new ways since its invention. Social systems are loose coupling TM, making new social forms possible (see Baecker 2000, Tække 2003, 2004 and Finnemann 1999 about the refunctionalisation of a medium when a new medium comes into the media matrix.

mals, or by a teacher, in which to draw letters. Sand can be used as a medium for the handling of complexity. It has some positive qualities: it is easy to wipe away marks, and it is cheap, but when talking, storing or contacting others living faraway, it is a poor medium. A society that has only the sand-medium has to communicate within the constraints and capacities this medium gives as a communicative space.

Another example is spoken language. Many things suggest that this medium is the TM that really gave humans the scope to become what they are today (Tække 2003, 2006). To speak is to differentiate between sound and words – sound is the ground and words are the figure – or in other words, sound is the medium and words the forms, if we look at the perception aspect of this medium. The meaning part is that we, with speech, can handle complexity in the form of meaning; that is, the difference between actual and potential. Every known human language is double-articulated (Jensen 1996), which provides an enormous combinatory potential for representing and producing complexity (Esposito 1999). Meaning can imprint itself into the medium of spoken language which in itself consists of three distinctions: between phoneme/sound, morpheme/phoneme and sentence/morpheme. This means that in every known language there are about 25 distinct sounds, that they can be combined into thousands of meaningful words, and that an infinite number of meanings can be made with full sentences composed from the thousands of words. With language, we introduce an infinite number of distinctions between the actual and the potential, so orally-based societies have a much larger capacity for handling complexity than earlier kinds of societies.

Writing, printing, analogue electronic media and digital electronic media are other thresholds in the evolution of society seen as a meaning system or, in other words, as the structurally coupled precondition for the reproduction of meaning in communication (Tække 2003, 2006; Finnemann 2001; Baecker 2000).

Writing with the phonetic alphabet gives the same combinatory possibilities as oral language. It can be seen as a remediation of double-articulated oral language that gives another communication situation (perception). Because writing is visual and transportable (e.g. ink on papyrus) meaning contributions can be stored and retrieved (that is, to handle complexity). In writing,

communication can be regarded as emancipated from the present time and space (perception, again). If we take the telegraph as an example: A meaningful sentence is encoded as clicks which, when transmitted through wires, can be differentiated over geographical distances, where they again can be recoded into meaningful sentences. This is the perception part; the meaning part is that a coding system handles complexity so that language is coded into clicks and back again, and that there is or were nets of wires, resulting in a communication-technological infrastructure, making it possible for the structurally coupled social systems to communicate over geographical distance in real time.

If we want to go deeper into an analysis of a TM, to understand its communicative space, we have to follow the questions I mentioned earlier, describing medium theory (3.1.). If we want to describe the reproduction and processing of communication based on a specific medium, we have to use the framework put forward in section 3.2.

4. THE COMMUNICATIVE SPACE OF CHAT

The perception part of chat is that we can perceive visual linguistic selections made by others, through networks of computers. The meaning part is that chat, as a TM, enables the emergence of social systems in cyberspace or, in other words, social systems based on the digital medium. Chat as a TM provides unidirectional communication possibilities, or what Jensen (1999) calls conversational interactivity; this also covers Usenet Newsgroups and other forms of media, but there are some constraints that make chat a distinctive and unique TM, giving it a special communicative space: It is a remediation of writing in which two to twenty or more users at the same time are, so to speak, at the same place in cyberspace,[8] with the opportunity of writing to each other. Any of the participants can type a line of text, a 'turn' (Vronay et al. 1999), and by pressing RETURN, the line can be sent to all the others linked to the chat Room.

8. "*Cyberspace-interaction is when two or more persons at the same time are observing utterances from one another by a technology that reduces geographical space.*" (Tække 2002).

Chat dates back to 1988, when Jarkko Oikarinen wrote the first Internet Relay chat (IRC) client/server programme[9] (Stenberg 2002). Now there are various kinds of chat, technically speaking, and it is possible to carry out research that defines the differences between the communicative space created by Web chat,[10] and IRC. IRC has a log function, commands,[11] and operators (the first person to join an IRC channel creates the channel and becomes its first operator, and gets privileges that include setting the topic, *kicking out* and *banning*[12] others from the channel).

Example 1 where the operator 'Vmpyir' *kicks* '<jerome>' out of the channel:

[13:03] <jerome> loraine
[13:03] <jerome> loraine
[13:03] <jerome> loraine
[13:03] <jerome> loraine
[13:03] <jerome> loraine
[13:03] <jerome> loraine
[13:03] <jerome> loraine
[13:03] * Vmpyir sets mode: +b *!jerome@62.3.39.95
[13:03] * jerome was kicked by Vmpyir (Text flood - 7 lines in 6 sec)

In IRC the operator can also ally herself with a computer programme known as a *bot*. Bots connect to IRC like normal users, and are typically granted operators by their creators. A bot[13] can look after the channel twenty-four hours a day, setting the topic, *kicking out* and *banning* users, and making sure that the channel will go on existing. This gives IRC channels two kinds of users: upper tier (operators and bot-owners (bots are programmed by their owners to make them operators)) and lower tier (the non-operators, ordinary users and

9. From a technical standpoint, the user runs a 'client' programme which connects to the IRC network via another programme called a 'server'. Servers exist to pass messages from user to user over an IRC network.
10. Maybe 'Browser-based chat' would be a more apt terminology than 'Web chat', because it is programmed in HTML or Java, for example. In this paper I use the terminology 'Web chat', because some types of browser-based chat have many of the same functionalities as IRC, for example, Yahoo chat. I use the term 'Web chat' because the CMC literature either analyses IRC that has many functions or browser-based chat with almost no functions besides writing (e.g. Hougaard, 2004).
11. See http://www.irchelp.org/irchelp/ircprimer.html#Behave about commands.
12. *Kicking out* and *banning* are two commands that are carried out by use of war scripts.
13. "Bot" is short for "Robot".

newbies) who are always in the channel at the mercy of the operators (Paolillo 1999). In Web chat, none of these things normally exist; they are run by many types of companies from web-portals to television companies. But there is usually also some kind of surveillance, so you can *go* and call for an attendant if some of the users utter illegal statements, about child porn, for instance, or if they flame the chat Room by *flooding*[14] it, for example.

To use IRC you have to download software, but to use Web chat you only need a browser and a link to a chat server. In my opinion, IRC is more difficult to learn to code and decode than Web chat, but when you are in the chat room or channel it is very much the same. If you can read and write, it is possible for you to participate. Being a good typist is an advantage in both forms of chat. To use IRC you must also know a little about computers, and spend some time finding out about commands, different networks etc.

The skills needed to read and write affect access to chat in two ways: First, communication through writing is automatically restricted to those with knowledge of the required code. Second, even if you have the knowledge of the basic code, messages can still be directed past you by varying the complexity of the coded message (compare with Meyrowitz 1985: 75). Also, this remediation of writing demands that you know about general chat culture, and the specific form used in the rooms or channels.[15] For example, the common acronyms and emoticons[16] used in chat generally, and the more local forms of communication, that is, local cultural codes.[17]

The user interface of chat has remained largely unchanged since the beginning. This may be because it is extremely popular. Chat is still growing enormously: for instance, there are now many IRC nets, and some of them exceed 100,000 incessant users. What the popular types of chat have in common is that chat entails social relations among spatially distant people based on near-synchronous written communication. In chat you see the communication as lines of text that slide over the chat window. At the bottom of the chat

14. Flooding is to write on all the lines in the chat, which can be done using a war script. See example 1. where "<Jerome>" is *flooding* the channel until *kicked* out by "Vmpyir".
15. It is called 'room' in Web chat and 'channel' in IRC.
16. There are many acronyms used in chat, for example, 'LOL' for 'laughing out loud'. There are also many emoticons used, for example, the smiley :-).
17. In IRC it is also a part of the code to know the commands and the hierarchy, e.g. the power of the operators.

window there is a line in which you can type your own contributions, which appear to everybody when you press RETURN. In Web chat, typically ten to fifteen lines of text are visible at any time, and the image of the lines is renewed every fifth second, or just slides down one line when a new line is sent to the chat. When a new line of text is input, the chat system automatically removes the oldest lines permanently. In IRC you can scroll back through its history, all the way to the point where you linked up to the chat-server, and the image of the lines is renewed every time a new line is sent to the system. In Web chat there are up to 30 participants and in IRC there can be a 1000,[18] but typically there are between 20 and 40 simultaneously.

There is also synchronous chat, but it is not as popular as near-synchronous chat, which generates a mode of communication that simply suits most people best. In synchronous chat you can observe the typing of others, which implies another communicative space. It takes space in the user interface, so the number of participants is limited, and it produces a totally different communication situation in which others can see the creation of your utterances, implying the observation of doubt, regrets etc., instead of fully formed utterances. It enables the possibility of commenting on an utterance that is not yet sent, and, according to Vronay et al. (1999), the display of typing often creates a feeling of embarrassment. In face-to-face (f2f) situations there is a co-regulation between the participants, during which the facial expression of one participant often causes the speaker to change the content of the utterance while talking, so the meaning reflects what she wants, in relation to the expressions on the others' faces. This is natural in f2f situations, but it doesn't seem to work in chat TM, where the preference is for utterances that are finished as units, before they are perceptible to others. The speed is slower than in f2f interaction, because the utterance must be typed

18. For example, #mp3passion had 1146 users 08-31-2004. When there are so many users, the picture is often renewed so quickly that I am unable to read the lines. Analysing the log, it seems clear that there is no coherence (see later about coherence) which, logically enough, shows that there is an upper limit to the number that can participate in one channel, if the communication is to be meaningful as a conversation. That the process continues anyway is due to the many commercials displayed there, leading people to websites with music, so the process goes on because this channel is for announcements about music, and by using the log function you can find information in which you are interested. Also, the speed is slowed if you hasten the messages from the IRC system, e.g. information about who joins, which again is an example of how important it is to learn to decode the TM.

and read, which makes it possible to interact with various persons about different subjects in the same or in different chat rooms at the same time.

The communication in chat is displayed linearly, so the messages appear in the chat window in the order that they are received by the chat server, which can sometimes cause problems, if a message is delayed because of the internet connection (Vronay et al. 1999). There is no possibility for either delinearisation or relinearisation in this TM, nor for using reference pointers, index, etc. But as a researcher using the log function, you have all the manipulative options that the digital medium offers, for example, de- and resequencing communication, so utterances that belong together can be put together and marked, etc. Ordinary users can also do this, but there is nothing that indicates this, which means that the durability of the chat message only lasts for the seconds during which they slide down the chat window. But in IRC, which has this log function, it is possible to store all the communication that runs in the channels to which you are connected, and here it often happens that one of the chatters, will say, for example: 'but just before u said…'. But nothing that I have seen indicates that this function is used, with regard to proving, for instance, what was decided previously, or what somebody had said on a previous day.

In chat it is possible to have private conversations between just two persons. It is also possible to send a private message to one individual in a chat room or channel invisible to other users. Hougaard (2004) claims that 78% to 80% of the communications in chat are private. This makes chat a primary private TM, like the telephone, but in chat you can have many chat-windows open at the same time. This means that many chatters participate in more than one chat conversation at the same time, that is, in turn saying something only to one, or to the whole group.

In example 2 we can study how different parallel conversations process in one channel at the same time. We can also see how a dialogue like the one between <fragglerock> and <^SanDrine^> sometimes includes other persons that link to it, which makes it what is called a *polylog* (Hougaard 2004) or a *multilog* (Herring 1999).

Example 2.

[13:06] <fragglerock> i'm so sorry to hear that ^SanDrine^

[13:06] <^SanDrine^> well yeah im so sorry too

[13:06] * alexiel has joined #CyberCafe

[13:07] * kalgart hugs ^SanDrine^ :{

[13:07] * francyn has joined #CyberCafe

[13:07] * Villify pats the amoebas

[13:07] <fragglerock> does he know that it was all because of a misunderstanding?

[13:07] <jlkj> :-)

[13:07] <^SanDrine^> i wish i could go back and undo what i did

[13:07] * fragglerock hugs ^SanDrine^ too

[13:07] <Cafeinebuny> i think we all do at times san

[13:07] * M_Scorpio has left #CyberCafe

[13:07] * DECENT_GUY has quit IRC (Read error: Connection reset by peer)

[13:08] <^SanDrine^> yes but it hurts to lose a very very good friend

[13:08] <fragglerock> it's a shame that he doesn't care about you enough to give it another try

[13:08] <Cafeinebuny> ya i know

[13:08] <Kipper> me too

[13:08] * Vmpyir checks out Villify's amoeba

[13:08] <^SanDrine^> i think that's the case here

[13:08] <Vmpyir> say

[13:08] * Villify ji ji jiggles it a bit

[13:08] * kum has joined #CyberCafe

[13:08] * annmarie19` has quit IRC (Ping timeout)

[13:08] <^SanDrine^> so i'm accepting it with calm finality

[13:08] <Vmpyir> thats some single celled organism you got there

[13:08] * Kellyyy has quit IRC (Read error: Operation timed out)

[13:08] <Vmpyir> does it do tricks?

[13:08] <Vmpyir> MY!

[13:08] * jerome has joined #CyberCafe

[13:08] <Vmpyir> a jiggler!

[13:08] <^SanDrine^> what else could i do?
[13:09] <Vmpyir> hang on to that one boy!
[13:09] <fragglerock> well i'm not sure that there is much more you can do
[13:09] <kum> cao
[13:09] <Villify> :P
[13:09] <fragglerock> he seems to know what he wants
[13:09] <^SanDrine^> yes i know fraggle
[13:09] * honey_4645 has quit IRC (Read error: EOF from client)
[13:09] <fragglerock> it's such a shame though
[13:09] <Vmpyir> is it well behaved?
[13:09] <^SanDrine^> and i want my self-respect

In sum, chat as a TM provides a communicative space or a possibility space for social systems in which to process. If you own a computer with internet access, can read and write, and know about the chat code – both the general and the specific – you can participate in chat communication. In Web chat, your position is only determined by your technical and social skills, but in IRC, operators have the power to moderate what you say, and even to *kick you out* and *ban* you from the channel. In most channels, the operators just participate like the others, but everybody knows that the operators have the power. This means that there is a difference between Web chat and IRC that is equal to the difference between unmoderated Usenet Newsgroups, which are free, like web chat, and Mailing lists and Usenet Newsgroups that are moderated and owned by a person who can decide whether you may participate, like IRC. But this is not like a feudal system; you can send a private message to the others in the channel, and then you can go somewhere else, or create your own channel – operators must behave themselves too, if they want to have users in their channel.

5. CHAT AS A SELF-ORGANISING INTERACTION SYSTEM

To say that chat is a social system, specifically that type of social system that I refer to as a self-organising interaction system (Tække 2005b, 2005a, 2006), means that it is a social structure created by the selections made in the inter-

action history of the system. No individual can determine the structure of the process of communication; only the processes of communication that run through the structure can alter it. This happens in the process of acceptance and rejection of meaning proposals. The special thing about chat is that it, as a communication system, has to reproduce itself in its structural coupling to the technical communication medium (TM) of chat, or in other words, within the communicative space created by chat as a TM. Chat as a medium is a medium of reproduction for social formations. The medium is the possibility space consisting of the selections already made, the condensations and cancellations. If a participant has experiences with the medium, it is probable and expectable that her utterances will be linked to by others. If a communication contribution succeeds, it is not negated, but accepted as a meaning proposal within the border of meaning (what we can talk about, and in what tone). If this happens, the communication will maintain itself, circling about the meaning proposal defining the system in relation to, or as distinct from the surrounding world. The border of meaning is the result of the interaction history of the system. The system is not static; every formation, every contribution may be accepted, altering the medium, confirming what is possible in the future.

5.1. Social connectivity in chat

When analysing a self-organising interaction system, a significant clue about how the system functions is the structure of its connectivity; what makes a contribution a success? Why does a new utterance link to a former? Here, as in all communication, a contribution is part of the process only if another contribution connects to its meaning material. This process has special constraints in different media; for example, you have to put a letter in an envelope, stamp it, and go to a letter box to send it.

Users come and go continually, and the computer system will inform you of that traffic in the limited number of lines that slide over your screen. This creates a communication situation in which much of the communication is about saying ‘hello’ and ‘goodbye’. Some CMC studies consider *openings*, the first utterances that chatters make, after they have joined a chat channel or room (Rintel 2001; Hougaard 2004).

Example 3. where <Cafeinebuny> opens and gets response from <fragglerock>.

[13:05] <Cafeinebuny> hello fragglerock *huggs* (kiss) :P

[13:05] <fragglerock> hey Cafeinebuny *hugs* *kiss*

The opening often shows the chatters belonging to the chat Room and is in this way reflective. This can happen in many ways, for instance by making personal references, using a special slang language, using colours when writing, by doing virtual acts[19], by starting a role-play, or by referring to known relations between other chatters. In this way the chatter displays knowledge about the border of meaning, and makes it probable that others will link to the communication contribution, making further contributions expectable. So openings that typically get linked to refer to the tone, language, colour, and to the topic or topics usually seen in the single chat room or channel, or just to the present topic. In this way openings that are linked to tell something about the border of meaning in a specific chat room or channel. The importance of the opening results from the special interaction situation in chat, where there is no face-to-face eye contact, and a chatter just arriving wants to be part of the social process. As chatter, you feel ignored if the others do not explicitly recognise you, and you do not exist in the social process if nobody links to your communication contributions.

5.2. Persons as a condition

Another constraint in chat is that the only thing that can identify you besides your communication style is your *nick* (Bechar-Israeli 1995; Danet et al. 1997; Rodino 1997).[20] In comparison to chat, for example, Usenet Newsgroups have many more clues of identity: an e-mail address which may be an institutional one, a signature, perhaps with a geographical address, the possibility of linking to a website with a photo (see Donath 1999, although she explains how few clues you have on identity in Usenet, in comparison to f2f situations, al-

19. A virtual act is a special form of play in chat, see example 2, where kalgart hugs ^SanDrine^ and Villify pats the amoebas. It is performed by using a command (/me *and what you want to pretend to do*) and the result is that your nick is displayed without the brackets (<>) and with a star (*) in front of the name instead.

20. A *nick* is a nickname that you choose when you link up to a chat, and is displayed at the beginning of every line you type in the chat. See the introduction to the appendix.

lowing for the possibility of deception). With regard to Usenet, it is also possible to search the Web with Google for a person's or a particular Newsgroup's whole interaction history. For social systems, it is crucial that there be a stable surrounding world of psychic systems:

> 'Through the connection between selections and further selections in the course of communication, a domain of what is to be accepted and expected condenses, and its boundaries cut across the world of meaning. Psychic systems thereby become persons, namely, collages of expectations, functioning as points of reference for further selections within the system.' (Luhmann 1995: 127)

So the self-organising interaction system needs a surrounding world of individuals who know about the system's interaction history, if the border of meaning is to survive over time. This is a special problem in chat, for many reasons; one is that the medium is near-synchronous, which means that the users must be there (at this place in cyberspace) at the same moment in time. In Usenet Newsgroups, which is an asynchronous TM, the users can enter on a daily or only weekly basis, and still keep the structural coupling to the system, as *collages of expectations* securing the border of meaning. Also, Usenet Newsgroups are differentiated by the fact dimension in a hierarchy, where every group is dedicated to a special topic (Tække 2004d, 2005a, 2006). Moreover, Usenet Newsgroups are archived and indexed by Google, and they often have linked websites describing the border of meaning for the group. In chat, however, the only storage of communication, and with it the border of meaning, is in the memory of the users.[21] Therefore, chat is extremely sensitive with regard to who is participating in the communication at a given moment, or you could say that the border of meaning in chat is more sensitive with respect to who is participating at a specific moment than it is in Usenet Newsgroups. Hougaard (2004) compares chat with a *break* and a *cocktail party*, which in my interpretation means that the topics and themes discussed relate very little to the interaction history of the chat room or channel as such, and more to the interaction history shared by the different persons who participate during a given moment. Still, chat is not some kind of realised

21. IRC has a log function, but it seems not to be used (Vronay et al. 1999).

utopia of the social; the single individual cannot determine the communication. Even though the border of meaning in chat seems to be more diffuse than it is, for instance, in Usenet Newsgroups, it still determines the selectivity of the communication. If some of the participants dislike the border of meaning and fail to modify it, they will probably find another channel, or create a new one themselves.[22]

Another point regarding Web chat is that the organisations hosting the chat Rooms (often a .com) come and go, so a group of chatters may be separated and never find each other again (Hougaard 2004). In IRC, the channels can be relatively old, for example, the IRC channel #CyberCafe on the Undernet was created in 1998.

5.3. Coherence

Another constraint in chat is that there is no or only a sporadic topographic coherence (Herring 1999; Hougaard 2004). This constraint is caused by the structure of the interaction in chat, in which the communication is spatialised in lines that include dialogues, polylogs, openings, messages from the computer system, etc. This makes it difficult and confusing to understand, especially for newbies, and also for people who try to carry out conventional linguistic analysis by looking for linearly sequential semantic coherence. If conventional coherence exits, then a 'first pair part' requires the expression of a 'second pair part'; the communication contributions must hang together as topically unified wholes. This is not the case in chat, where there is no resequencing of the contributions, which are displayed in the order that they are received by the computer system.[23] The chatters, who are familiar with the medium, are able to contribute to several dialogues and polylogs at the same time, and also to recognise messages from the system, openings, goodbyes and messages of no interest, selecting what they want to link their contributions to.

22. The advice given in the IRC etiquette (also called netiquette) is that, if you dislike the channel, leave and find another. See http://www.irchelp.org/irchelp/new2irc.html#advice
23. See the conversation in example 2, between <fragglerock> and <^SanDrine^>: There are many communication contributions from other chatters, and also from the IRC system, that separate <fragglerock> and <^SanDrine^>'s contributions. Notice too, that this does not disturb the conversation, not even if other chatters intervene.

Another problem regarding coherence is that of tenuously associatively-related semantic shifts. But as Hougaard (2004) shows, there is often coherence in depth semantics, and the chatters show an extraordinary talent for playing with the language, creating coherence and playing with the ambiguity of many words. Even if 47% of the contributions are off-topic (Herring 1999) or 40% of the turns are repetitions or corrections to misunderstandings of previous turns (Vronay et al. 1999), it seems not to matter, because it is only what it is linked to, the former communication contribution, that becomes part of the social structure. In f2f situations there are no links between all the contributions. The new (or semi-new) thing here is that writing is used for near-synchronous interaction, and therefore the expectations about coherence have been too high, in the first place. Vronay et al. (1999) also appear to think about 'effectiveness' in the communication, but the chatters do not perform as an organisation that must be efficient at decision-making, for example. Chatters want to have fun, play with roles, experiment with language, have a date or just be part of a community (Hougaard 2002). They want to be recognised, to be known as someone with a special personality, with a reputation (Bechar-Israeli 1995). All this is possible if the self-organising interaction system is able to close itself around a border of meaning with exactly this purpose. The fun part is created because of the constraints offered by the TM, giving exactly that communicative space in which they can find satisfaction for their social needs. The communicative space created by TM chat does allocate the social system, so it is efficient enough for the fulfilment of the social process. The social process is the handling of complexity in the form of meaning, which in chat is possible, so the purposes of the chatters are fulfilled. It would be spoiled if the TM were altered so it performed more efficiently (as also Vronay et al. 1999 designing project shows). All in all it seems as a necessary condition that the communicative space of the chat TM is as it is, with all its constraints; regardless of the noise created by the many corrections, off-topic contributions, repetitions and misunderstandings.

5.4. The border of meaning

It seems clear, in sum, that chat is a medium of social reproduction that functions as a process in the communicative space created by the chat TM. The

connectivity of the communication process relies on how the single communication contribution refers to the border of meaning. But can we in any way claim that a chat room or channel has a border of meaning, in the same sense that we can when talking about Usenet Newsgroups? (Tække 2004d, 2005a, 2006). As I have described, chat has not the same resources as newsgroups for creating a stable surrounding world for its social system, and it has a much more diffuse mediacy. Chat, therefore, is extremely sensitive with regard to who is participating in the communication at a given moment. The border of meaning seems to be more dependent on who *is there* at a given moment, than those we know from other TM, Usenet Newsgroups, for example. Because it is in the nature of the social to build a border of meaning, since the one utterance has always, if communication is to take place, to link to a previous one, the real questions are if and how the border of meaning can last over time. We next take some examples from the CMC literature, to find tendencies that give an idea of the border of meaning in chat.

One example is the IRC channel '#mirc_rainbow' that Danet (2002b) has documented. Here, all the contributions were coloured visual images, created from letters and other typographic symbols. For instance, the chatters greet each other by making art out of their nicks. The members produce or just use mini-programmes to add effects to their utterance. This channel has a very clear border of meaning, even though it is a little atypical, having both the content of the communication and the right way to utter it realised by adding visual effects to the communication contributions.

Another example is given by Hougaard (2004), who, in Web chat, when comparing two chat rooms – called, in translation, *other youngsters* (OY) and *other seniors* (OS) – found a number of differences between them, and, thereby, that what made the two chat rooms distinctive from one another were their borders of meaning. In OY they used more colours, fonts, homophonic abbreviations (like 'u' for 'you' in English), and also more public dialogues than in OS. In OS there were more polylogs, responses to openings (in OY openings almost only exist when asking for a private dialogue e.g. 'is there a sweet girl for a chat') and even *closers* (goodbyes). OS also display more role games, meta-communication (communication about communication) and they often call for participation in the collective communication, that is, ask-

ing others to come back to the *plenum* from the private dialogues that are invisible to others. In OS they have many polylogs with many participants, so, in defining the border of meaning, you could say that OS is the chat Room where they all speak together in one big group using plain text. On the other hand, the function of OY is to meet others, to find one to be alone with together, using the plenum to present oneself as attractive, *clothed* in colours, special fonts, and using many acronyms and abbreviations.

In IRC, where channels often have a long interaction history, with users participating over years with a friendly operator, we can talk about a group face and about face maintenance (Bays 1998). Here we typically have groups of chatters protecting the border of meaning, for example, by reprimanding users overstepping the boundaries of the condensed norms for polite speech and behaviour in the channels (ibid.).

If we look at the case from which my examples are drawn, which is a one hour sample of the activity in the IRC channel #CyberCafe, it appears that there are internal differentiations in the border of meaning. The channel as such is a self-organising interaction system with a border of meaning that allows and defends a form of interaction describing a continuum from intimate serious dialogue about existential problems to the exchange of silly and skittish comments. The operator <Vmpyir> is expected to keep order and protect the communication, but she also contributes to the communication herself. It is obvious that most of the participants are familiar with the channel and know each other, performing the *collages of expectations* that secure the border of meaning. This provides the definition of the border of meaning; that this channel performs as a kind of café were you can talk about your life in a safe and familiar environment. At the same time, the long and intimate dialogue between <fragglerock> and <^SanDrine^> has its own autopoiesis. It is a topic discussed around one table in the café, but in contrast to an ordinary café, in this one, which is a cyber café, everybody can follow the debate and even contribute to it. Parallel to this differentiated *topic system* <Villify> and <Vmpyir> carry out a flirtation with many *virtual acts*.

Example 4.

[13:19] * Villify licks Vmpyir's nostrils gently
[13:19] * chenyl has joined #CyberCafe
[13:19] * rodas has left #CyberCafe
[13:19] * sexsy has joined #CyberCafe
[13:19] <fragglerock> well i do hope that you start feeling better soon ^SanDrine^
[13:19] * Vmpyir giggles estatically and waggles her fringe
[13:19] <fragglerock> i really honestly do
[13:19] <Villify> FRINGE!!!
[13:19] * dragonfly has joined #CyberCafe
[13:19] * Villify licks Vmpyir's fringe *drool*
[13:19] <^SanDrine^> i think i'm on my way there fraggle
[13:19] <^SanDrine^> but it's gonna take some time
[13:19] * Vmpyir runs about looking like mary from Something About Mary
[13:20] * Villify points and gasps!!! "There's something about Vmpyir!!!"

This provides the impression of the channel as a system in which there is an overarching border of meaning that functions as a kind of a *communication meta plan* that provides space for differentiations *of topic systems* that create their own borders of meaning. However, the topic systems are always open to new contributions (if they match, according to the overarching border of meaning). On this basis, we can conclude that chat, even though there are many constraints to its communicative space – for instance, the short duration of the communication contributions – does perform like other social systems in reproducing a border of meaning.

5.5. Media sociographic overview of chat

Based on this analysis, chat is described using all the different fields of existing CMC research, under the structure and logic of media sociography. Before presenting the conclusion, which return to the meta-theoretical level, I provide an overview of chat in the media sociographic perspective.

Social systems are reproduced in the media of communication, and rely on a structural coupling to the surrounding world, consisting of biological and psychic systems, and TM. Chat is decoupled from other societal communication by the TM of chat, which decouples the communication of chat from other societal communication. Chat started with IRC as one society with only a few channels, and still retains signs of that, for instance, we can speak of one netiquette. Today there are many differentiations within chat, for example between different IRC networks, and between IRC and various kinds of browser-based chat. Regardless of these differences, there are so many similarities that, in an overview, it is possible to regard chat as one TM in comparison to other TM. In the perspective of the theory presented here, it is possible to say that chat is a form in the medium of society. There are many common culturally and historically developed norms and special ways to behave connected to the distinction between chat and society. If we see society as a concept describing all the societal possibilities for actualising communication, chat is one element of these possibilities. At the same time, none of the other TM provide the same constraints as chat does. The self-organising interaction system, processing through the TM of chat is a form, a unique way of carrying out the process of communication.

To take one more step down the form/medium ladder, we can say that the single chat-self-organising interaction system is a form in the medium of chat generally seen. In the single channel or room, it is up to the users to decide the border of meaning. For example, if they want to stick to the netiquette, some of the active users must re-actualise its meaning content, and get support from other users.

The last step on the form/medium ladder is to see the single communication contribution as a form in the medium of the single channel or room, producing the border of meaning, as it is, or trying to modify it by new meaning proposals, hoping to get them *conditioned* (making it a condition for further communication). To reproduce the self-organising interaction system, as it is, is to condense what has been said before actualising and confirming it. To negate a new proposal of meaning is to annul it, creating a memory of it as not part of the system. This is not an easy process, even though all the active users have a commitment to the group (that is, the channel or room means

something to their identity as persons, because they are who they are due to their relations to other users). If intruders try to troll[24] the channel or room, they are sometimes flamed, sometimes ignored, and in the case of IRC, sometimes *kicked out* and *banned*. But even in IRC, the operator is not always able to secure the channel, because other operators sometimes fight them to obtain control over the channel (Paolillo 1999). Hentschel (1998) describes virtual wars on IRC as a common phenomenon in which different groups try to take over channels via war scripts. In my own experience, IRC is an easygoing form of communication in which other users are most obliging. I have only seen *kicking* if a chatter has been *flooding* the channel, or if a chatter has been swearing,[25] or if somebody has connected a *bot* that has done weird things in the channel.

Example 5.

> [13:17] <nplmthrwr> fuck fuckity fuck fuck
> [13:17] * Vmpyir sets mode: +b *!*xuser@slc544.modem.xmission.com
> [13:17] * nplmthrwr was kicked by Vmpyir (My my, thats a big word for such a little brain. Here's a little timeout to go read your dictionary)

If users are impolite, normally it is not the operator but other members who give them a real talking-to, instructing them to behave in accordance with the border of meaning. So in this typically nice and relaxed atmosphere, the process of communication based on the TM of chat runs, accepting some meaning proposals and negating others.

6. CONCLUSION

This paper has described chat as a special form of social system, and has explained this specialness as the outcome of communication as a universal kind of process and the technical chat-medium, and as providing a special commu-

24. Trolls are persons who attempt to pass as legitimate participants but who are not; their purpose is to create mistrust in communities by lying, teasing, offending, ridiculing etc. (see Donath 1999).
25. Most bots automatically *kick out* users if they swear, so even operators often write, for example, 'f__k' instead of 'fuck'. But if there is a human operator, he or she kicks out those who swear, see example 5 for one in which <nplmthrwr> is swearing, and Vmpyir kicks him out for that.

nicative space for that process. This paper has addressed the field of Computer Mediated Communication (CMC), with special regard to research in chat. It has demonstrated that CMC research benefits from its foundation in medium theory and systems theoretical sociology, by performing reinterpretations of existing research results presenting *what chat is*. This has been made possible by framing a proposal for a new methodology, that of media sociography. Media sociography synthesises medium theory and systems theoretical sociology, and provides one unified theoretical basis for CMC studies. The use of media sociography has made it possible to provide a unified description of the mediacy of chat, and how social systems process in this technical medium. The social and technical context for understanding includes openings, nicks, the question of synchrony, and other important findings from CMC, which have been incorporated into one united description, defining what chat is. The result is that, through media sociography, we are able to draw things together in one trans- or inter-disciplinary field of CMC.

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