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Schmidt, Jan

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SOCIAL SOFTWARE: FACILITATING INFORMATION-, IDENTITY- AND RELATIONSHIP MANAGEMENT

Jan Schmidt

Research Centre „New Communication Media"
Otto-Friedrich-University Bamberg, Germany
jan.schmidt@split.uni-bamberg.de
http://www.bamberg-gewinnt.de/wordpress

1. Introduction[1]

From its beginnings in the 1960ies and 1970ies, the Internet has been used for communication and collaborative work. While early adopters mostly worked within academia and the military, its rapid diffusion within the last 15 years has broadened the user base massively. Nowadays, the Internet is a widely used technological infrastructure for information retrieval, transaction and interaction, with E-Mail, newsgroups, discussion boards and chats being major services for interpersonal communication. Contrary to pessimistic, sometimes even dystopistic positions, these modes of computer-mediated interaction do not per se cause deficient social relationships, but can rather be the foundation for enduring social networks with complex internal differentiation (Wellman, 1999; Stegbauer, 2001; Thiedeke, 2003).
During the last years, a growing number of online-based applications has been developed that facilitate the creation, articulation and maintenance of social networks. They are often referred to as „social software", but up to now there is neither an accepted definition of this rather vague term, nor is there a comprehensive analytical framework to describe and explain the social dynamics that come with the institutionalization of these tools. This paper starts with a proposal for a definition and its analytical elements, concentrating on the affordances social software allows (Chapter 2). It will then sketch an analytical model of „social

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software practices" based on the three key concepts of rules, relations, and code, briefly discussing these elements and their interdependencies (chapter 3). The paper will conclude with an outlook how the definition and the analytical model might aid and inform future academic research as well as software development.

2. Social Software

Based on a communication sociology perspective, I propose the following definition: *Social Software refers to those online-based applications and services that facilitate information management, identity management, and relationship management by providing (partial) publics of hypertextual and social networks.*

While the definition is still very broad, it implies boundaries between social software and other modes of using the Internet: Social software differs from applications and services for online transactions (e.g. filling out governmental forms online, ordering goods at E-Commerce sites) as well as from applications and services for private interpersonal communication (e.g. E-Mail). The important distinction between these usage modes and the affordances of social software lies within the public, or at least partially public nature of the relationships that are formed and/or articulated between users. Two kinds of relationships can be separated analytically: Hypertextual relations are based on hyperlinks between texts (blog entries, wiki pages, profiles on social networking sites, etc.) and assist the navigation of complex hypertexts. Social relations, on the other hand, are based on some kind of affiliation between individual people. The actual base for these relations or ties can differ (e.g. friendship, collaboration, shared interests, etc.) and be of various strength (the most famous distinction being between „strong ties" and „weak ties", see Granovetter, 1973). Although social relations will often be expressed through hypertextual relations (e.g. by linking to a friend's blog in one's own blogroll or making a contact with another user explicit within a social networking site), they can also be implicit and might include interactions through other means of communication as well (like face-to-face interaction or non-public mediated interpersonal communication)

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Both hypertextual and social relations form publics in that sense that they articulate communicative references between texts (in a very general sense, so video or sound files are included as well), which can for example be bits of factual information on a topic or a person as well as opinions or comments. These texts are visible to other people, which will sometimes include rather large audiences, sometimes only selected people (e.g. some of my blog entries at Myspace.com might be visible only to my contacts). Inasmuch as they are persistent, they allow navigation and additional communicative references. By sustaining these (partial) publics, social software facilitates three specific processes:

- *Information management*: Social software helps the user in finding, rating and/or sharing certain information within the hypertextual and social networks;
- *Identity management*: Social software allows for presenting oneself to others by making certain aspects of one's personality, interests, expertise etc. public;
- *Relationship management*: Social software assists the user in articulating, creating and maintaining social relationships.

The term „management" should not imply that all these processes are explicitly planned. Rather, it refers to the fact that users apply certain communicative strategies (consisting of certain rules, see 3.1) which might be implicit and not reflected at all. Furthermore, the distinction between the three processes is analytic in that respect that there are certain connections and interdependencies between them which might make it difficult to assign certain practices to one type only: Commenting on and linking to a blog entry is both part of identity management (since the author will indicate his/her own views on the topic) and of relationship management (since the link as a hypertextual relation and the comment as a communicative reference will create or maintain a social relation between the two authors). For other readers, this commented link might play a role in information management, since it can channel attention and point to an argument or perspective not considered before. Different social software tools can focus on specific processes:

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- A collaborative bookmarking service like del.icio.us, for example, is focussed on (individual as well as collective) information management, because users annotate web-based content for themselves and others. However, there are also aspects of relationship management (since identical tags create relations between content) and identity management (since the tags I assign and the content I annotate do also express my interests).
- A social networking site like XING (formely OpenBC) or LinkedIn, on the other hand, aims first and foremost at relationship management by articulating existing connections between users and assisting the creation of new contacts. However, when filling out the profile, a user also engages in identity management since s/he has to decide which personality aspects will be disclosed to other users (possibly making certain information like a mobile phone number only visible to contacts).
- A blog, to give a third example, is a relatively easy-to-use tool for presenting one's ideas and experiences to other people interested in it, making it a tool for identity management within online-based publics. It also requires certain ways of relationship management, since both hypertextual and social relations can be created and maintained through comments and links in postings and/or blogrolls. A blog reader, on the other hand, will need certain strategies of information management to navigate the blogosphere, for example by focussing on particular topical blogs or the blogs of people who share similar interests.

To summarize: Social software assists information-, identity- and/or relationship management by making connections between texts and people visible, at least to partial publics. These three affordances refer to certain strategies of using a given social software tool. To further analyze and explain the social structures and dynamics that emerge from this individual use, the concept of „social software practices" will be explicated in the next chapter.

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3. A heuristic framework of social software practices

There is widespread agreement between social scientists that to understand and explain human actions one has to take both individual and social or collective factors into account.[2] People do act in specific and unique situations, but their actions are framed by factors that lie outside of the situation and are part of social context: Social norms, for example, will suggest certain ways of behaviour by linking an agent's options to the expectations of other people within a group or a society as a whole. If the agent acts according to the norm s/he will receive positive sanctions, if s/he violates the norm negative sanctions will follow. Additionally, an agent's position in a social structure can provide him/her with certain ressources (e.g. financial capabilities or professional competencies) to pursue certain actions – or might exclude him/her from them, thus limiting one's options. Norms and social structures are examples for social factors that frame individual, situated behaviour – without fully determining it. Rather, the structural aspects of social reality are (re)produced through individual actions and can thus change over time. A social norm that might have framed actions at a certain time will loose its sanctioning force if people stop adhering to it; an agent's position in a social structure (and access to certain ressources) can also change over time. Thus, individual action and social structures are connected through the two processes of framing and (re)production.

This general sociological argument can help us understand social software practices, since they are also subject to the processes of framing and (re)production. The basic argument is as follows: In individual usage episodes, an agent utilizes a specific social software application to obtain certain communicative goals of information management, identity management, and relationship management. His/her use is framed by three structural dimensions which are constantly (re)produced through individual actions: Rules, relations, and software code. Over time, shared routines and expectations emerge within „communities of practice", that is within groups of people who use social software (particular tools or combinations thereof) in a

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similar way to engage in information-, identity- and relationship management. The following chapters look at the three structural dimensions in more detail (see also fig. 1 for a graphical representation).

3.1 Structural dimension 1: Rules

In a sociological sense, rules are generalizable procedures or „scripts" for action which guide situational performance by providing shared expectations based on previous actions and generalized knowledge. Without rules, social agents would be facing a nearly limitless number of choices for action in any given situation – rules therefore reduce contingency and uncertainty of social situations by preselecting certain options. The concept is tied to Goffman's (1959) idea of the „definition of a situation" in that respect that participants of social interaction have to agree on a certain frame in which their interaction is going to take place. Only when they agree on a shared definition of a situation, they can act meaningful and can adjust their behaviour to their own and others' expectations.

In social software use, rules can have varying degrees of explicitness and sanctioning. For example, the software code (see part 3.3) presupposes certain actions by programming the behaviour of the system and by making some options possible, other options impossible. In addition, interaction between users of a software (as opposed to the direct interaction of a user with the code, e.g. by filling out a registration form) is guided by a number of informal rules, that is by social conventions and norms which emerge within communities of use (see part 3.4). These informal rules will often only be known to people participating in a community for a longer time – „newbie" is the common nickname for people who have not yet learned the particular rules and netiquettes of a given community. In addition, there might also be more formalized rules, e.g. the Terms of Service, license agreements or general laws governing freedom of speech..

Regarding the focus, two different kinds of rules can be distinguished: *Adequacy rules* frame the process of media choice, that is they govern which social software format or application will be choosen with certain communicative gratifications sought.

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These processes of media choice do not have to be made consciously every time, but will rather be habitualized and depend on previous experiences and obtained gratifications. If the decision to use a specific tool has been taken, the actual process of media use is guided by *procedural rules* which tell the user how to use a given social software format or application. Analytically, we can further differentiate procedural rules by the different aspects and strategies of the usage episode they refer to – again keeping in ming that they might occur simultaneously in actual practice.:

1. *Rules of selection* refer to the user as recipient of content who takes part in information management and has to decide which online sources to select for given informative needs. Individual rules of selection will not only be influenced by particular interests (e.g. current political issues vs. personal encounters and experiences made by friends), but also by previous experiences with certain information sources. For example, a user who discovers a blog with valuable information might decide to add it to his/her personal information repertoire, either by visiting it regularly or adding it to a RSS feed reader.
2. *Rules of publication* refer to the user as author of content who has to decide which information will be made public, thus influencing the identity management. For example, there are different expectations and criteria for self-presentation in a business-oriented social networking site like LinkedIn or XING than there are at Friendster or Facebook, which are mainly used for personal socializing. Rules of publication are also tied to changing conceptions of privacy vs. publicness, which might not only affect the user him/herself, but also other people (see Viegas 2005)
3. *Rules of networking*: This set of rules refers to the user as „connector" who articulates new or pre-existing relationship through the use of social software, thus engaging in relationship management (more on the various kinds of relations below). Connecting to other texts (which, in turn, most often implies connections to certain other persons) can be done by linking to a blog, confirming a contact request at a Social Networking Site or even tagging a certain resource (thus connecting the object to a semantic network). Rules of

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networking might include shared routines on when and how to connect to other ‚nodes' (broadly understood as pieces of information, texts or users).

3.2 Structural dimension 2: Relations

As already mentioned in part 2, the use of social software maintains or creates two different kinds of relations: Hypertextual relations connect objects on the World Wide Web by creating a link between two texts, while social relations signify some sort of interaction between agents. Different social software applications facilitate the emergence of different networks: A Wiki, for example, is a hypertext network of interconnected documents, while social networking sites connect people, making the social relations of different degrees visible. Collaborative classification systems use individual acts of tagging ressources with keywords to aggregate and extract semantic networks as emerging bottom-up-classifications or „folksonomies".
Based on this distinction between two kinds of relations, we can also distinguish two kinds of ressources that social-software-based networks provide. One is the provision of (partial) publics, since hypertextual relations channel attention by pointing the reader to different pieces of information. Several structuring principles can be observed within these emerging publics:

1. *Filtering mechanisms*: Traditional publics relied on gatekeepers to select relevant information and present them to recipients. Depending on the perspective, one could either look at individual journalists or at editorial departments as social systems as gatekeepers; in both cases the interplay of certain rules and professional standards provided a selection of information. These gatekeeping mechanisms are not becoming obsolete through social software, but are complemented by two additional mechanisms. One is sometimes dubbed as „wisdom of the crowds": Individual users' choices and evaluations of texts are aggregated and presented as rankings, e.g. the „Top Favorite" videos at YouTube.com, the „hotlist" at del.icio.us or the „most popular news articles" at technorati.com. A second filtering mechanism is based on the „wisdom of the own network": Especially through the use of RSS technology it becomes

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feasible to arrange a repertoire of sources that are individually relevant. These might include general news as well as information from personal publics (e.g. a colleagues blog or a friend's flickr photo stream) which will never attain general popularity, but might nevertheless be interesting for the individual user. In this respect, social relations can provide a filter function for the individual user who is able to rely on people s/he trusts due to personal acquaintance or topical expertise.

2. *Hierarchy*: Although the discourse around social software emphasizes decentrality and low barriers of entry, not every text attains the same amount of attention or publicity. Rather, as a result of individual selection and publication practices, a few texts will reach a wider audience, while a majority will be known only to a small number of recipients. This hierarchy, which often resembles a power law distribution of rank and attention, can be observed in different contexts, from link frequency in the blogosphere (Schuster, 2004) to the distribution of individual tags in collaborative classification systems (Shirky, 2005; Schmidt, 2007). The more central nodes (e.g. blogs with a lot of daily visitors) not only have a greater chance to gain additional attention and to spread information to other parts of the network, but might also act as „role models", influencing the way others perceive the „correct" use of a tool. Thus, the hierarchy of emergent publics introduces elements of power into the seemingly equal communication and interaction through social software.
3. *Overlapping:* The third structuring principle refers to the relation between the publics based on social software and the publics produced by traditional mainstream mass media. Claims of an end of journalism or mainstream media (e.g. Hewitt, 2005) are exaggerated, since the diffusion of social software tools results in both overlapping and complementary publics. First of all, media outlets as well as other organizations experiment with the integration of social software tools into their own communication strategies. Second, there are processes of mutal agenda setting: On the one hand, a growing number of mainstream media are using the emerging publics as sources for upcoming

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stories or for commentary. On the other hand, users of social software tools refer to mainstream media by citing and/or commenting their news and stories, thus further distributing them.

The second resource sociotechnical networks provide is social capital, which refers to the benefits (or structural limitations) one gains from his/her position in a social network. Since social software can assist the maintenance of both strong and weak ties, there is a wide range of possible gains, for example access to information (see the discussing of filtering mechanisms above), social support or a sense of group identity. With regard to information, one could also think of emerging counterpublics on issues not covered by mainstream media, or of personal publics, that is of information that might be of personal relevance but will not pass gatekeeping mechanisms of media outlets. Another example would be the use of social networking sites focussing on business relations to attain information about carreer opportunities. With regard to support, a qualitative case study on the blogging community „Twoday" has produced examples where the interaction in blogs helped to overcome personal problems or crises, when readers (some of whom the blogger has never met in personal) gave advice or showed solidarity and sympathy (see Schmidt, 2006: 149-170). Finally, the social networks forming around certain topics might express affiliation to groups of professional expertise or youth subcultures – tying back the relations articulated through social software to aspects of identity management. Through interactions with people who share certain interests or ways of life (e.g. by sharing stories, pictures or video clips), one can gain a sense of belonging and refine facettes of his/her own identity (see the case study on the UK goth subculture in Hodkinson 2006).

3.3 Structural dimension 3: software

The third structural dimension, the software code, is tied to both previously discussed dimensions. It consists of a number of algorithms determining the behavior of a technical system given certain forms of input, either by a user or by

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other programms. Thus, software code can be seen as a specific subset of rules that enable or restrict certain practices.[3] It is also the precondition for the maintenance and expansion of hypertextual and social relations, since specific features laid out in the code of respective social software applications help the user to aggregate and navigate the emerging networks. For example, the provision of a permalink, an unique URL for small pieces of „microcontent" rather than for complete websites, fosters the shape of the blogosphere as a multitude of „distributed conversations" (Efimova/de Moor, 2005). Social networking sites who allow for the expression of different levels of closeness (e.g. the distinction between „friends" and „family" at flickr.com) give the user the possibility to filter information for specific parts of his/her social network, thus also assisting the process of identity management. As a final example, the visualization of relations in network paths or tag clouds might make connections visible that have been unacknowledged before.

While for many users the software code appears to be a „black box", it should not be conceptualized as a fixed and stable structural element that determines actual behavior – amongst others, Lievrouw/Livingstone (2002b) have argued against this fallacy of technological determinism and have emphasised the underdetermination and options for recombination of computer technologies. We can apply this argument here by showing how social software code is embedded in social practices in two different respects. First, code is produced within social contexts which influence its shape and dynamics. Innovation processes are based to a high degree on feedback loops between groups with different levels of technical expertise and knowledge. Many tools are developed as open source projects which allow all interested people to modify and advance the code or its components. They are often released early in the development process to encourage user feedback (this is sometimes referred to as the „perpetual beta"). The resulting interaction of users and developers leads to a high rate of sociotechnical innovation, which is nicely expressed by Rebecca Blood with regard to blogs: „When any sizable number of bloggers start doing something, someone will construct a tool to automate it - further popularizing the activity" (Blood, 2004: 55). Through open Application

Programming Interfaces (APIs), different tools and applications can be connected, leading to so-called „Mash-ups". In addition, functionalities of different social software applications are increasingly integrated, for example when blog systems and social networking mechanisms are combined to give users the opportunity to provide different levels of visibility to their texts.

But it is not only the production, but also the appropriation of software technologies that is influenced by social factors. At the beginning of the diffusion of new media technologies, no or only little shared routines and expectations about the usage modalities and consequences exist, usually leading to extreme utopistic or dystopistic scenarios. For example, due to their low barriers of entry and the emphasis on personal authenticity, blogs were said to either facilitate a revolution in the way news get produced and distributed, or to foster online narcissim and voyeurism when ordinary people make their private life public. However, the actual diffusion has led to a full range of different practices that have been informed by other ways of communicating and interacting (e.g. existing journalistic standards or general norms and ideas about the boundaries between the private and the public), thus making the impact of blogs less dramatic and revolutionary than originally predicted.

Emphasizing the resistance of given social structures, however, should not be read as denying the possibilities those innovative technologies offer. Between the two poles of technological determinism and social determinism lies the position of a sociology that is informed by technology studies (see Lievrouw/Livingstone, 2002a for various applications to Information and Communication Technologies,). It takes into account the „interpretative flexibility" people show when starting to use a given technology. There are many examples of the emergence of unintended and creative uses of social software applications, either just for the fun of playing around with a software, or to overcome perceived limits in functionality of usability of a tool. danah boyd, in her contribution to this volume, gives some very illustrative examples how features of the software code combined with shared routines and social dynamics lead to consequences the designers/developers did not anticipate or

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intend (Brazilian users registering at orkut.com to move their flag to the top spot in the national ranking; users creating „fakesters" at friendster.com to express themselve creatively and to connect people sharing certain cultural preferences but not necessarily friends).

These innovative uses might influence revised or updated versions of the software. The networking site XING, for example, dropped an indicator of one's rank within the community based on number of contacts because it encouraged users to collect contacts just to rise within the ranking, thus deflating the meaning of a contact. Spamming, the most prominent example of unwanted use of a social software tool (with its different variants of blog spam, wiki spam, etc.), has led to an ongoing race between spammers and developers to invent and improve software mechanisms to automate inclusion or detection of spam messages.

3.4 Interdependencies and practices

While the three structural dimensions of rules, relations and code have been discussed separately, there are in fact many interdependencies between them that make the separation primarily an analytical one. Procedural rules, most notably the networking rules, influence size and composition of hypertextual and social networks emerging from ongoing interactions. The centrality of one's position in a network of both hypertextual and social relations is not only an indicator of status, but has also an influence on the power of an agent to transfer his/her own routines and expectations to others. There might be different bases for that power, e.g. specific technical or domain-related competence and expertise, specific administrative rights to change functionalities of the software system, or the authority that comes from being around long enough, resulting in a stronger visibility and connectivity in the sociotechnical networks.

Within some of these networks, „communities of practice" might emerge – not in the sense usually put forward by business theorists (e.g. Wenger, McDermott & Snyder, 2002), but in a rather general vein: groups of people sharing certain ways of using a given application to engage in information-, identity-, and relationship

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management. For example, the knitting bloggers described by Wei (2004) develop a sense of group identity and even explicitly define and enforce certain procedural rules. By incorporating these shared expectations and routines into their individual way of handling the blog format, the knitting bloggers not only obtain sought gratifications, but reinforce and reproduce sets of adequacy and procedural rules. Other examples for the interplay of rules, relations and code come from the analysis done by Efimova, Hendrick & Anjewierden (2005) on a community of knowledge management bloggers, or from the case study on Friendster (boyd 2006).

In sum, social software practices show the duality of structure and agency inherent to all social action (Giddens, 1984). Their structural elements of rules, relations and code frame individual usage episodes without being static. Rather, they are subject to negotiation and change, since they have to be (re)produced in single episodes. As a result, emerging networks of interconnected texts and social relations can structure attention and provide social capital. These qualities of social software are based on single usage episodes guided by rules of selection, publication, and networking and employed in strategies of information management, identity management and relationship management.

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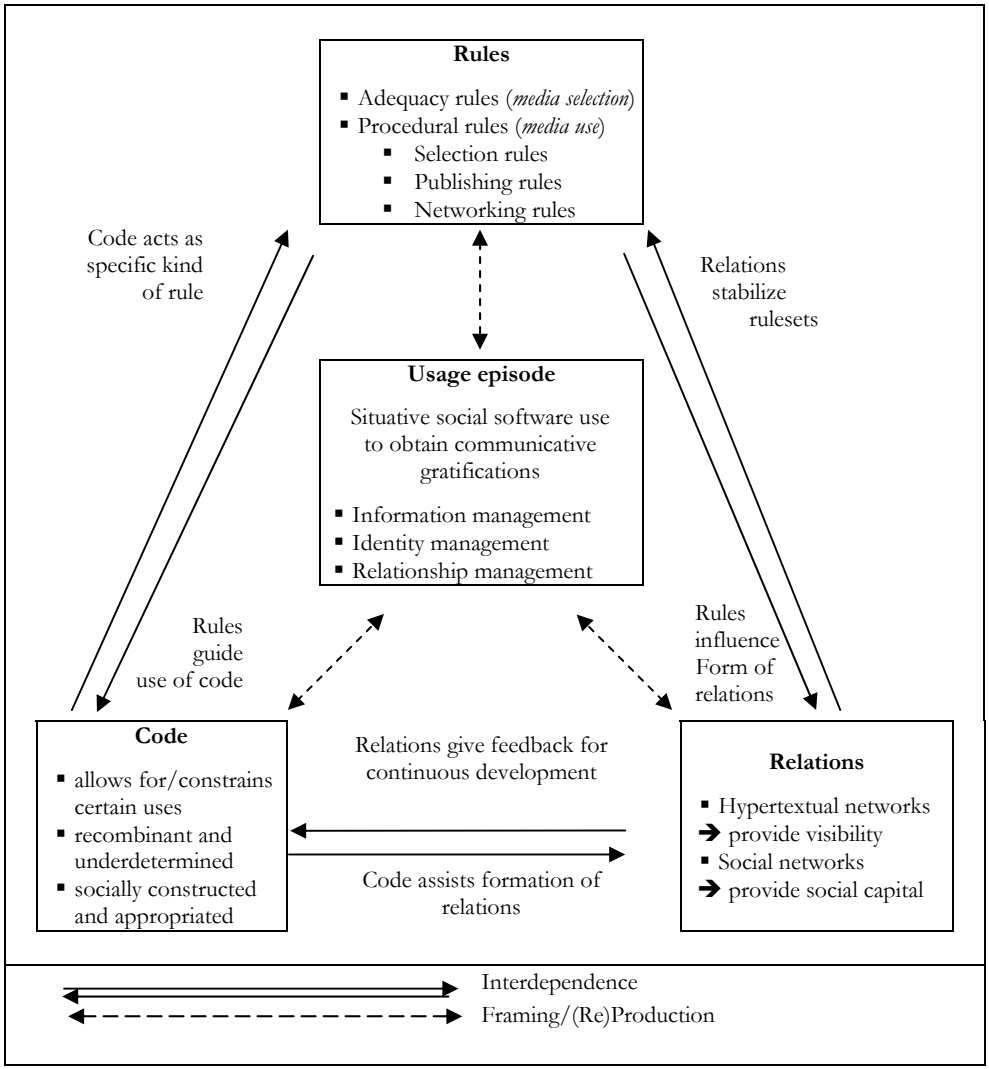

Figure 1: Heuristic framework for analysing social software practices

5. Conclusion: Challenges and avenues of future research

This paper could only briefly sketch outlines of a practice-oriented approach to analyze social software from the perspective of communication sociology. It proposed a number of interdependent analytical categories to describe aspects of the social interactions facilitated through social software. Up to now, the framework has been used mainly to analyze blogging practices (Schmidt, 2006; 2007). However, as the examples used throughout this paper have shown, it should also prove useful for other case studies of social software practices as well as for comparative analyses. These might either proceed along lines of contrasting different tools used for identity management, relationship management, and information management; they might compare the practices of different groups (e.g. gender-, age- or subculture-specific practices) or might reconstruct the emergence of publics and social networks through the use of social software.

From a methodological point of view, the framework also calls for variety of empirical approaches, drawing from different research traditions. To reconstruct existing rules it might be worthwhile to apply ethnographic methods and discourse analysis to show how routines and expectations emerge and are shared within communities of practices, while also taking power issues into account. Quantitative as well as qualitative methods of network analysis will help to describe and explain the formation of hypertextual and social relations, while efforts to visualize complex network structures might not only enhance our understanding as researchers, but could also become part of future software versions. Finally, to analyze the interdependencies of code and actual use one should draw on approaches by usability studies, social informatics as well as general insights from a sociology of knowledge, which might help explain how interactions between people with different levels of expertise contributes to the high sociotechnical dynamics observable within the field of social software.

While a great deal of the current discussion about social software is subsumed under the heading of „Web 2.0", this (well marketed) buzzword might actually obscure

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some of the basic sociological phenomenons currently taking place in the Internet because it simultaneously evokes the idea of a discrete „version change" (thus neglecting the continuities from earlier forms of social software) and is in great parts associated with hopes of a new economic boom. To reduce the possibilities of social software to new business models, however, is not only sociologically dissatisfying and short-sighted, but also unfair to all the people who use social software without any economic interests in mind.

References

- boyd, d. 2006. Friends, Friendsters, and Top 8: Writing community into being on social network sites. In: *First Monday*, Vol. 11, Issue 12. http://www.firstmonday.org/issues/issue11_12/boyd/index.html
- Durkheim, E. 1982. *The rules of sociological method*. Edited by S. Lukes. London.
- Efimova, L. & de Moor, A. 2005. Beyond personal webpublishing: An exploratory study of conversational blogging practices. In: *Proceedings of the Thirty-Eigth Hawaii International Conference on System Sciences (HICSS-38)* https://doc.telin.nl/dscgi/ds.py/Get/File-44480/HICSS05_Efimova_deMoor.pdf.
- Efimova, L., S. Hendrick & A. Anjewierden. 2005. *Finding „the life between buildings": an approach for defining a weblog community*. Paper presented at the Internet Research 6.0: Internet Generations, Chicago, Illinois. https://doc.telin.nl/dscgi/ds.py/Get/File-55092/AOIR_blog_communities.pdf.
- Giddens, A. 1984. *The constitution of society: Outline of a theory of structuration*. Cambridge.
- Goffman, E. 1959. *The presentation of self in everyday life*. New York.
- Granovetter, M. 1973. The strength of weak ties. In: *American Journal of Sociology*, Vol. 78, 1360-1380.

In: Burg, Thomas N. / Jan Schmidt (Eds.)
BlogTalks Reloaded. Social Software - Research & Cases.
Norderstedt: Books on Demand.

- Hewitt, H. 2005. *Blog. Understanding the information reformation that's changing your world*. Nashville.
- Hodkinson, P. 2006. Subcultural blogging? Online Journals and group involvement among U.K. goths. In: Bruns, A. & J. Jacobs (eds.) *Uses of blogs*. New York. 187-198.
- Höflich, J.R. 1996. *Technisch vermittelte interpersonale Kommunikation. Grundlagen organisatorischer Medienverwendung, Konstitution „elektronischer Gemeinschaften"*. Opladen.
- Höflich, J.R. 2003. *Mensch, Computer und Kommunikation: Theoretische Verortungen und empirische Befunde*. Frankfurt.
- Lessig, L. 1999. *Code and other laws of cyberspace*. New York.
- Lievrouw, L. & S. Livingstone. 2002b. The social shaping and consequences of ICTs. In: Lievrouw, L. & S. Livingstone (eds.): *Handbook of new media. Social shaping and consequences of ICTs*. London. 1-15.
- Lievrouw, L.; S. Livingstone (eds.) 2002a. *Handbook of New Media*. London.
- Schmidt, J. 2006. *Weblogs. Eine kommunikationssoziologische Studie*. Konstanz.
- Schmidt, J. 2007a. *Blogging practices: Analytical framework and empirical findings*. Scheduled to appear in the Journal of Computer-Mediated Communication.
- Schmidt, J. 2007b. Tagging und kollektive Verschlagwortungssysteme in der Organisationskommunikation. To appear in: Döbler, T.; N. Ziesche (Hrsg.): *Social Software*. Baden-Baden.
- Schuster, M. 2004. Applying social network theory to a small weblog community: Hubs, power laws and the community core. In: Burg, T.N. (ed.): *BlogTalks 2*. Norderstedt. 96-109.
- Shirky, C. 2005. *Ontology is overrated: Categories, links, and tags*. http://shirky.com/writings/ontology_overrated.html.
- Stegbauer, C. 2001. *Grenzen virtueller Gemeinschaft. Strukturen internetbasierter Kommunikationsforen*. Wiesbaden.
- Thiedeke, U. (ed.) 2003. *Virtuelle Gruppen. Charakteristika und Problemdimensionen*. 2nd edition. Opladen.

In: Burg, Thomas N. / Jan Schmidt (Eds.)
BlogTalks Reloaded. Social Software - Research & Cases.
Norderstedt: Books on Demand.

- Viegas, F. B. 2005. Bloggers' expectations of privacy and accountability: An initial survey. In: *Journal of Computer-Mediated Communication*, 10(3), article 12. http://jcmc.indiana.edu/vol10/issue3/viegas.html
- Weber, M. 1968. *Economy and Society*. 3 vols. Edited by G. Roth & C. Wittich. New York.
- Wei, C. 2004. Formation of Norms in a Blog Community. In: Gurak, L., S. Antonijevic, L. Johnson, C. Ratliff & J. Reyman (eds.) *Into the blogosphere: Rhetoric, community, and culture of weblogs*. http://blog.lib.umn.edu/blogosphere/formation_of_norms.html.
- Wellman, B. (ed.) 1999. *Networks in the global village. Life in contemporary communities*. Boulder, Co..
- Wenger, E., McDermott, R. & W.M. Snyder. 2002. *Cultivating communities of practice: a guide to managing knowledge*. Boston.

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1 I am indebted to Dirk-Claas Ulrich and the participants of the "BlogTalk Reloaded" conference for helpful comments on earlier versions of this paper.

2 Most prominently spelled out by Anthony Giddens (1984), the idea of a "duality of structure and action" has already been formulated by classical sociologists like Max Weber (1968) and Emile Durkheim (1982). The framework presented here is also based on the ideas presented by the german communication scholar Joachim R. Höflich (1996; 2003) and has been developed in more detail in Schmidt (2006).

3 In a more general sense, this argument has been put forward by Lawrence Lessig (1999) who stated in his opening chapter: "code is law".