Struggling for Feminist Design: The Role of Users in Producing and Constructing Web 2.0 Media

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Introduction: Users in Web 2.0 between gender stereotypes and feminist struggles

Web 2.0, with its social network sites, music- and video-sharing platforms, wikis and weblogs, is celebrated as the users' web. It is linked to hopes concerning user participation, information exchange and sharing, interoperability, user-centred design, the removal of the sender-recipient structure, and boundless participation and collaboration without hierarchies (Best 2006; critically: Reichert 2008: 8). The agency of the users is expected to increase enormously; every user is a potential sender. As bloggers, wiki participants and members of social network sites, they generate content and applications and therein contribute to the construction and production of Web 2.0 media.

The first studies on the gendered aspects of Web 2.0 show a heterogeneous picture (Carstensen 2009): While weblogs offer spaces especially for female users to express their thoughts and meanings as well as their diverse versions of femininity (Herring, Scheidt, Bonus and Wright 2004; Harders and Hesse 2006; van Doorn, van Zoonen and Wyatt 2007) or even for new subject constitutions and queer politics (Landström 2007), analyses of the scripts of the registration forms on social network sites as well as of users' self-presentations in the personal profiles show stereotypical constructions of gender identities on the sides of both the users and the designers (Wötzel-Herber 2008; Manago, Graham, Greenfield and Salimkhan 2008).

Beyond that, from a feminist viewpoint it is interesting that users have initiated a few struggles for (and against) feminist, gender-sensitive, queer or inclusive designs within Web 2.0. In the following, I discuss the questions of what agency, possibilities and restrictions users with feminist or gender-sensitive requests have to influence, contribute to or intervene in media production and the design of Web 2.0. I therefore first give a short overview of the debate on the social construction of technology and the role of the users in shaping technology within the field of Science and Technology

nology Studies and recent internet research with a special focus on feminist perspectives. I then introduce my empirical results, which are based on considerations taken from three examples of feminist interventions: a struggle of content, a struggle of language and a struggle of forms. In the end I discuss the role of (feminist) users and the extent to which they have become active participants in producing Web 2.0 media.

From users that matter to prosumers

In the field of Science and Technology Studies (STS), it is no longer controversial that technology is a result of negotiation processes and power struggles. Mainly initiated by the research into such approaches as *Social* Shaping of Technology (SST) and Social Construction of Technology (SCOT) it is also uncontested that technological development does not follow its own logic, but rather is the outcome and materialisation of social power relations (MacKenzie and Wajcman 1985; Bijker, Hughes and Pinch 1987). The design process is characterized not by "one best way", but by high "interpretative flexibility" (Pinch and Bijker 1987: 40). These opportunities for different designs and meanings of one artefact are negotiated by relevant social groups in the fields of technology, science, politics, economy and the public (Bijker 1997: 269), in which the most powerful actors achieve their interests. Technological artefacts therefore represent social structures, norms, discourses and motives.

Within this conceptualisation of technology as socially constructed, users have come into view as relevant actors in recent years, too (see esp. Oudshoorn and Pinch 2003). On the one side they are considered to be 'imagined users', who play a role in the construction of technologies. Akrich (1992) suggests that "innovators 'inscribe' a specific vision about the world into the technical content of the new object". She calls the end product of this work a "script" (Akrich 1992: 208). The scripts of technological objects enable or constrain human relations as well as the relationships between people and things. These representations of the anticipated interests, skills, motives and behaviour of future users become materialised in the design, and attribute and delegate specific competencies to users and technological artefacts (Akrich 1992: 207).

Dutch and Norwegian feminist scholars have extended the script approach to gender perspectives and developed the concept of a "genderscript" (Berg and Lie 1993; van Oost 1995; Rommes, van Oost and Oudshoorn 1999). This concept follows the idea that designers (unconsciously) inscribe different views of female and male users and uses into technology. Gender is imprinted onto objects through instructions, advertisements, associations with gendered divisions of labour, and associations with gender symbols and myths. Artefacts that incorporate a gender script then construct users' gender identities (see Cockburn and Ormrod 1993; Oudshoorn, Saetnan and Lie 2002; Zorn et al. 2007) and are therefore powerful, materialized co-players in gender relations (Haraway 1991: 153).

On the other side, STS approaches emphasize that scripts are not closed; they remain flexible and cannot determine users' practices and identities completely (Oudshoorn, Saetnan and Lie 2002: 478). The domestication approach analyses how technological objects are integrated into daily life and how users, through their different ways of interpreting, using and talking about technologies, further contribute to the social shaping of technology (Silverstone and Hirsch 1992; Lie and Sørenson 1996). Users do not necessarily have to adopt the scripts constructed by the designers. They may slightly modify the scripts, drastically transform them, or they may even completely reject or resist them, create new meanings and uses for the objects, or become non-users (Kline and Pinch 1996; Kline 2003; Oudshoorn, Saetnan and Lie 2002; Wyatt 2003). Therefore, users play a crucial role in shaping technologies.

This also opens room for manoeuvre with regard to gender: "Users define whether things are useful, or maybe fun, what things are good for and for whom, whether they experience them as gendered and whether they find them useful to articulate and perform their (gender) identities. By interpreting and using technologies, users are active participants in shaping the gendering of artifacts" (Oudshoorn, Saetnan and Lie 2002: 481). Users are conceptualised as "co-designers of their relationship to technological products" (Lie and Sørenson 1996: 3).

The domestication approach has led to a shift in the conceptualisation of users from passive recipients to active participants. It focuses on the creative agency of users, but leaves room for a critical understanding of the social constraints on user-technology relations and the differences among and between designers and users.

However, while the designer-user differentiation still remains relevant in the domestication approach, this separation erodes in current concepts of the role of users in constructing Web 2.0 technologies. No other previous technology has been constituted by users to the same extent as the internet, with homepages, Wikipedia entries, personal profiles in social network sites, the open source movement, forums and chats. Referring to Alvin Tofflers "prosumer" (1970), it is suggested that the role of producers and consumers begins to blur and merge. The consumer becomes part of the production process. Voß and Rieder (2005) point in a similar direction and describe how increasingly professional processes and functions are outsourced to private customers. They call this new type of customer a "working customer". Furthermore, Bruns (2008) shows how the collaborative content creation carried out in the open source software development and in Wikipedia is based on active users. As relevant actors, users participate in designing content and software and become producers, developers and designers of technologies.

However, at second glance, it becomes clear that Web 2.0 is by no means solely constructed by users, nor is it entirely democratic and participatory. Rather, a range of power structures and hierarchies can be identified in wikis, weblogs and social networks. Stegbauer (2009) shows how power relations and hierarchical organizational structures arose among Wikipedia

users and how this restricts opportunities to participate. Herring, Scheidt, Bonus and Wright (2004) and Hesse (2008) point out that despite a female dominance among weblog writers, the so-called A-bloggers – the most-read weblog writers - are almost 70% male. Thus, traditional mechanisms of hierarchical gendered public spaces still have an impact on digital publics. Finally, recent research on social networks has shifted the focus from social networks as spaces for individual networking and self presentation to the business strategies of companies like Facebook and their effect on technological infrastructures, not at least as materializations of hegemonic and governmental norms (Leistert and Röhle 2011). It becomes clear that Web 2.0, like most technologies, is a field of negotiations structured by power relations. However, the role of gender in these struggles and negotiations is still wide open.

Against the background of opportunities for user participation on the one side and hierarchical power structures on the other, it is interesting to study the feminist users' struggles in Web 2.0 to see the users' agency and restrictions on contributing to and intervening in the construction and production of Web 2.0 technologies and media.

Feminist struggles in Web 2.0

In the following I investigate some of the struggles in which users try to realise feminist and gender-sensitive design ideas in order to get some insights in the users' role in Web 2.0 media production from gender perspectives. Feminist struggles happen at different places: at decentralized weblogs (e. g. controversies with/about trolls) as well as at central locations like MySpace, studiVZ, Wikipedia, or Facebook (Carstensen 2009). The following three cases represent only examples of struggles, illustrating the variety of aims, strategies and achievements of the involved users. A systematic study of even more struggles is lacking, and would be able to complete and ground these preliminary results.

In the three investigated examples of interventions, design is criticised by feminist users, gender-sensitive and feminist design ideas are developed and discussed. Three distinct types of struggles concerning the design of Web 2.0 are carried out:

- 1. Struggles for content: the discussions concerning the suggested deletions of the two feminist entries, "Ladyfest" and "riot grrrl", in the German version of Wikipedia.
- 2. Struggles for language: the discussion on the German social network site studiVZ on the use of gender-sensitive language within the network.
- 3. Struggles for forms: the discussion on the German social network site studiVZ about the registration form as well as the request in Facebook "For a queer positive facebook . . . " as recommendations to change the profile options.

In some senses, these examples represent different feminist strategies and can map a certain bandwidth of feminist aims: revaluating the relevance of feminist issues as well as implementing and defending feminist and gender issues in the mainstream public (1), making women visible (2), and deconstructing binary gender concepts and enabling subject positioning beyond female and male (3).

Online (deletion) requests, petitions, documented discussions within Wikipedia, Facebook and studiVZ, as well as the self presentations of the involved groups and actors, all serve as data material.

Struggles for content

The first example covers the discussions about the suggested deletion of two feminist entries, "Ladyfest" and "riot grrrl", in the German version of Wikipedia. Wikipedia is based on wiki technology, the technological script of which enables users to contribute, edit and discuss content within Wikipedia.

The explicit idea of Wikipedia is that everybody can participate.¹ At the same time Wikipedia disposes of differentiated social rules. A central principle of the Wikipedia policy is the "neutral point of view",² which means that all articles must represent fairly, and as far as possible without bias, all significant views that have been published by reliable sources. Every user can suggest the deletion of an entry; this can be discussed by all and a decision can be reached. The deletion itself can only be performed by administrators. Reasons for deletion (in the German version of Wikipedia) are a lack of relevance,³ a lack of quality, or copyright problems.⁴

In August 2007 the existing entries on "Ladyfest" and "riot grrrl" in the German version of Wikipedia were suggested for deletion. The deletions of these entries were reasoned by one user as having a lack of relevance, quality and significance. Other critics who followed described the entries as "free association" which was "not objective". The fact mentioned in the entry that women and girls are underrepresented in the music industry was disputed. Furthermore, the statement of gender as a social construct was questioned. The initiator of the deletions argued "I always thought that gender is concerned with genetics." The subsequent responses fought for the relevance and the quality of the entries. It was stated that Ladyfests and riot grrrls are part of a supra-regional movement and an expression of a new feminist self-conception, and are therefore relevant. Furthermore, it was criticised that in a "male-dominated internet medium, an entry on a feminist group is censored". One user wrote that it should be noted that the entry for "riot grrrl" can be

¹ http://en.wikipedia.org/wiki/About_Wikipedia

² http://en.wikipedia.org/wiki/Wikipedia:NPOV

³ http://de.wikipedia.org/wiki/Wikipedia:Relevanzkriterien

⁴ http://de.wikipedia.org/wiki/Wikipedia:L%C3%B6schregeln

found in eight other Wikipedia versions in other languages. In the end, an administrator decided to keep the entries.5

These incidents illustrate that the question of whether feminist contributions to content production are possible and successful in Wikipedia is predominantly decided among users. Feminist users' interventions do not fail or succeed because of closed technological scripts, but because of other users who argue against feminist topics. Feminist interventions into content production can be successful but they must deal with differences, attacks, negotiations and opposing views at the same level - the users' level. In addition, the key role in these decisions is held by the administrators, so we have to take into account some important hierarchical structures.

Struggles for language

The second example covers the unsuccessful struggles within the German social network studiVZ over the use of gender-sensitive language within the network. As in other social network sites, the technological scripts allow users to construct a personal profile, connect with other users, found groups and have discussions.

For the denominations of the functions one can have within the network, such as "student", "moderator" or "administrator", only male forms are used. 6 This androcentric and discriminating script was cause for some users to found a group called "gender sensitive language in studiVZ". The group formulated the aim to also use female forms like "Administratorin", "Freundin" or "Studentin". A student had expressed this concern to the responsible persons of studiVZ and posted her message and the administrator's response in the group forum. In the answer, the administrator argued that implementing gender-sensitive language would be "highly difficult". He stated that studiVZ's concern was by no means to discriminate against women through grammatical finesse. Further, he outlined that the emancipation of women, which was doubtlessly an important movement, ought to have more important things to do than to try to "change grammatical designs": "While we argue about word endings, infants are killed in other countries simply because they aren't male. I am sure that the whole team [of studiVZ] . . . would be pleased to support you if you have any ideas on

⁵ The discussions are documented under http://de.wikipedia.org/wiki/Wikipedia:L% C3%B6schkandidaten/5. August 2007#Ladyfest .28bleibt.29; http://de.wikipedia.org/ wiki/Wikipedia:L%C3%B6schkandidaten/5._August_2007#Riot_grrrl_.28erledigt.29.

⁶ In the German language, there are female and male forms for nouns such as "Studentin" (a female student) and "Student" (a male student). The German feminist movement has long criticised that women are not visible in this use of language (Pusch, 1984). Feminists suggest different possibilities to make language more gender-sensitive, including the "Binnen-I" or the use of gender-neutral forms such as "Studierende." In governmental institutions, the use of non-discriminating terms has since become regulated.

⁷ http://www.studivz.net/Forum/Threads/df0dbc9fd58e4e34/p/1.

to fight against the real discrimination of women. Certainly, you must have proposals for that if you think about emancipation, right?"8

This provocative answer stirred disgust and rebellion, as well as the idea to compile a catalogue of requests to studiVZ. However, the group grew fast, and with it also the number of members who argued against gender-sensitive language. These opponents started a thread within the group called "pro preservation of the generic masculine noun!" with a range of anti-feminist reasoning. In this group, a controversial discussion of the purpose of gender-sensitive language ensued. The idea of a joint catalogue of requests therefore failed because of the controversies within the group.

This example illustrates different problems relating to feminist interventions in social network sites. The first point faces a similar problem as already discussed in the Wikipedia example: Users are different; they have different political attitudes and opinions, and are by no means united in their feminist aims. Feminist interventions as common actions and strong alliances to shape design, supported by a larger group, therefore already fail because of the controversies and differences among users.

Furthermore, the possibilities to influence the androcentric design of the social network are restricted technologically as well as socially. There are no possibilities for users to change the gendered scripts directly, because they do not have access to the level where the denominations are fixed. The member's message to the responsible persons of studiVZ illustrated the hierarchical decision structures in which no direct interventions are intended. The responsible administrators decided on the language script and now affirm it as unchangeable; feminist requests are refused, and even treated derogatively.

Nevertheless, users have – as advised by technological scripts – the possibility to found groups, open spaces to discuss, criticise the language use and launch protests against the structure of the platform. They can address the responsible persons and try to achieve changes via petitions and mails. The scripts of social network sites offer large possibilities for transporting feminist aims and concerns into a larger public. So the feminist interventions to change the androcentric language use in studiVZ did not achieve their aim, but by placing this issue on the agenda, they sensitised other users and pointed out that women are not visible in this use of language.

Struggles for forms

The third example deals with users' requests for non-binary registration forms. Most of the social network sites require the indication of diverse information to register as a member, such as name, birthday, location, nationality, etc. Gender plays a significant role in the gaps in the registration forms, and in most cases one can only choose between the two options of male or female (Wötzel-Herber 2008). This is also the case on the social network sites studiVZ and Facebook.

⁸ http://www.studivz.net/Forum/ThreadMessages/df0dbc9fd58e4e34/ce5bfaba358bd792

If users refuse to choose one of the two alternatives of gender in studiVZ, they are sent to the statement: "Only female or male entities can register with us!" In the current version of Facebook, users are asked by a dropdown menu "Select sex: Male/Female" and are requested to "Please select either Male or Female" upon refusal. Thus, in both cases the technological scripts do not allow registering without a subject positioning as male or female.

In studiVZ, the registration forms were also criticised within the "gender-sensitive language in studiVZ" group mentioned above. One user asked who in the group might also be angry about that, and suggested that studiVZ should offer a third possibility, such as "indecisive". It was suggested to formulate a common request to change the registration forms. This, however, did not happen.

In 2007, a Facebook group was founded which fights "For a queer positive facebook....". The members of the group are lobbying the operators of the site to make certain changes to the way user profiles are currently formatted. The users want Facebook to add new features to the user profiles which would allow a more inclusive representation of a wide range of personal self-identities. They published a statement in which they claim that "we have the right to demand that it [Facebook] be an open, inclusive and positive community, which reflects the identity of all members." They recommend different changes to profile options: the drop down menu for "sex" should be changed to "gender" and switched to a "fill in the blank" format. Further, the next category "interested in" should have extra boxes of "none" and "other", followed by a "fill in the blank", added to the selection of "men" and "women". Finally, they demand that persons who select "in a relationship" should have the option of including multiple partners. They point out that persons who do not identify with any of the above identities will still have the 'traditional' options and will simply not make use of the additional services.

Users can join the group to support their concerns, and they can also download and use an application offered by the group which supplies the requested possibilities: "Finally you can express your sexual orientation and gender identity accurately, the way it should be expressed: your way! Choose from many options, both binary and non-binary, for sex, transition status, gender identity, gender presentation, orientation, interested in, title, and pronoun, or fill in your own." Users are also pointed to the notice: "This application was *not* developed by Facebook." ¹⁰

Just as in studiVZ, the attempts in Facebook to change the registration forms also failed. Although the group has had at its best times over 11,000 members who supported this concern and contributed to a heated discussion, Facebook did not react.

⁹ http://www.facebook.com/group.php?gid=2214484023.

¹⁰ http://calpoly.facebook.com/apps/application.php?id=2353404662.

This third example illustrates how strong the technological scripts as well as the social power relations are within social network sites. The operators of Facebook decided on a design with dichotomous gender scripts and now ignore requests to change them. Feminist users criticize these restrictions, but in the end have no possibilities to change the registration forms.

So, feminist agency to change forms in social network sites is limited, while at the same time this technology not only offers space and agency regarding discourses, protests, requests and petitions, it also enables the development of an independent supplemental application which does not influence the registration form, but at least broadens the possibilities inside the network to express oneself within the personal profile. This does not change the design, but amends it.

Conclusion: Feminist users don't matter?

Against the hopes of strong users' agency these examples show that users' possibilities to intervene in the design of Web 2.0 are restricted by social and technological barriers, differences among users, strong hierarchies (within the group of the users as well as between users and administrators) and by fixed affirmed scripts, which in most cases do not permit possibilities to change design directly. And it has been shown that it is easier to influence content than language use or forms. The prognosis for the erosion of the producer-user differentiation turned out to be inaccurate. Although users can produce a lot of media content in profiles, wikis, weblogs, etc., in questions of design it still makes a difference which side you are on.

It also has been shown that in the investigated struggles, users with feminist or gender sensitive aims have to negotiate and argue against strong anti-feminist, androcentric, and heteronormative structures, norms and attitudes, which are manifest within Web 2.0 in content, language and forms, among other things. This constellation is not specific to the internet; it also can be found in workplaces, politics, print media, etc., but it comes to a head in Web 2.0. Furthermore, it can be assumed that these current power relations and conflicts become more visible in the participatory and user-centred technological environments of Web 2.0, as if technology is produced behind closed doors.

However, it is remarkable how many rooms for feminist discourses exist within the technological scripts of Web 2.0 media technologies. Aside from the disillusioning result that (feminist) users are not able to influence site design in a far reaching way, another conclusion is that the domestication of media and technology now takes on a public dimension in Web 2.0: the negotiation, transformation, rejection, modification and reinterpretation of technological artefacts moves from households and private places into public spaces. Feminist users carry out visible struggles, raise their voices against existing design, produce trouble and develop ideas for alternative design in spaces made available by Web 2.0 technologies. Dissatisfaction

with technological scripts becomes a public issue that can be verbalised and discussed directly with others, so at least self-understanding and an exchange of opinions are promoted. Whether or not these discursive struggles will have consequences for feminist media production in the long term remains to be seen.

References

- Akrich, M., 1992. The de-scription of technical objects. In: W. E. Bijker and J. Law, eds. Shaping technology/building society, studies in sociotechnical change. Cambridge, Mass.: MIT Press, pp. 205-224.
- Berg, A. J. and Lie, M., 1993. Feminism and constructivism: Do artifacts have gender? Science, Technology and Human Values 20(3), pp. 332–351.
- Best, D., 2006. Web 2.0 Next Big Thing or Next Big Internet Bubble? Lecture Web Information Systems. Technische Universiteit Eindhoven.
- Bijker, W. E., 1997. Of Bycycles, Bakelites, and Bulbs. Toward a Theory of Sociotechnical Change. Cambridge, Mass.: MIT Press.
- Bijker, W. E., Hughes, T. P. and Pinch T. J. eds., 1987. The Social Construction of Technological Systems. New Directions in the Sociology and History of Technology. Cambridge, Mass.: MIT Press.
- Bruns, A., 2008. Blogs, Wikipedia, Second Life, and Beyond: From Production to Produsage. New York: Peter Lang.
- Carstensen, T., 2009. Gender Trouble in Web 2.0: Gender Relations in Social Network Sites, Wikis and Weblogs. International Journal of Gender, Science and Technology 1(1) [online]. Available at: http://genderandset. open.ac.uk/index.php/genderandset/article/view/18> [Accessed 21 September 2011].
- Cockburn, C. and Ormrod, S., 1993. Gender and Technology in the Making. London: Sage.
- Haraway, D., 1991. Simians, cyborgs, and women. The reinvention of nature. New York: Routledge.
- Harders, C. and Hesse, F., 2006. Partizipation und Geschlecht in der deutschen Blogosphäre. femina politica 19(2), pp. 90–101.
- Herring, S. C., Scheidt, L. A., Bonus, S. and Wright, E., 2004. Bridging the Gap. A genre analysis of Weblogs. Paper presented at the 37th Hawaii International Conference on System Sciences [online]. Available at: http://www.ics.uci.edu/~jpd/classes/ics234cw04/herring.pdf [Accessed 23 April 2009].
- Hesse, F., 2008. Die Geschlechterdimension von Weblogs: Inhaltsanalytische Streifzüge durch die Blogosphäre. kommunikation@gesellschaft 9(1) [online]. Available at: http://www.soz.uni-frankfurt.de/K.G/B1_2008_ Hesse.pdf> [Accessed 21 September 2011].
- Kline, R., 2003. Resisting consumer technology in rural America: The telephone and electrification. In: N. E. J. Oudshoorn and T. J. Pinch, eds.

- *How users matter: The co-construction of users.* Cambridge, M. A.: MIT Press, pp. 51–66.
- Kline, R. K. and Pinch, T. J., 1996. Users as agents of technological change: The social construction of the automobile in the rural United States. *Technology and Culture* 37(4), pp. 763–779.
- Landström, C., 2007. Queering Space for New Subjects. *Kritikos. An international and interdisciplinary journal of postmodern cultural sound, text and image* 4, November-December [online]. Available at: http://intertheory.org/clandstrom.htm [Accessed 20 September 2011].
- Leistert, O. and Röhle, T. eds., 2011. *Generation Facebook. Über das Leben im Social Network.* Bielefeld: transcript.
- Lie, M. and Sørenson, K. H. eds., 1996. *Making technology our own? Domesticating technology into everyday life.* Oslo: Scandinavian University Press.
- MacKenzie, D. and Wajcman, J. eds., 1985. *The Social Shaping of Technology. How the Refrigerator Got its Hum.* Milton Keynes/Philadelphia: Open University Press.
- Manago, A. M., Graham, M. B., Greenfield, P. M. and Salimkhan, G., 2008. Self-presentation and gender on MySpace. *Journal of Applied Developmental Psychology*, 29(6), November-December, pp. 446–458.
- Oudshoorn, N. E. J. and Pinch, T. J. eds., 2003. *How users matter: The co-construction of users and technologies*. Cambridge, Mass.: MIT Press.
- Oudshoorn, N., Saetnan, A. R. and Lie, M., 2002. On gender and things: Reflexions on an exhibition on gendered artefacts. *Women's Studies International Forum* 25(4), pp. 471–483.
- Pinch, T. and Bijker, W., 1987. The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other. In: W. Bijker, T. Hughes and T. Pinch, eds. *The Social Construction of Technological Systems. New Directions in the Sociology and History of Technology.* Cambridge, Mass.: MIT Press, pp. 17–50.
- Pusch, L. F., 1984. Das Deutsche als Männersprache. Aufsätze und Glossen zur feministischen Linguistik. Frankfurt am Main: Suhrkamp.
- Reichert, R., 2008. *Amateure im Netz. Selbstmanagement und Wissenstechnik im Web* 2.0. Bielefeld: transcript.
- Rommes, E., van Oost, E. and Oudshoorn, N., 1999. Gender and the design of a digital city. *Information Technology, Communication and Society* 4(2), pp. 476–95.
- Silverstone, R. and Hirsch, E., 1992. *Consuming technologies: Media and information in domestic spaces*. London:Routledge.
- Stegbauer, C., 2009. Wikipedia. Das Rätsel der Kooperation. Wiesbaden: VS Verlag.
- Toffler, A., 1970. Future Shock. London: Bodley Head.

- Van Doorn, N., van Zoonen, L. and Wyatt, S., 2007. Writing from experience: Presentations of Gender Identity on Weblogs. European Journal of Women's Studies 14(2), pp. 143-59.
- van Oost, E., 1995. 'Male' and 'female' things. In: M. Brouns, M. Verloo and M. Grunell, eds. Women's Studies in the 1990s. An introduction to the different disciplines. Bussum: Couthinho, pp. 287–310.
- Voß, G. G. and Rieder, K., 1995. Der arbeitende Kunde. Wenn Konsumenten zu unbezahlten Mitarbeitern werden. Frankfurt am Main: Campus.
- Wötzel-Herber, H., 2008. Doing Me and the Others. Identitätskonstruktionen in Online-Communities. M. A. thesis, University of Hamburg [online]. Available at: [Accessed 20 September 2011].
- Wyatt, S., 2003. Non-Users also matter: The construction of users and nonusers of the internet. In: N. E. J. Oudshoorn and T. J. Pinch, eds. How users matter: The co-construction of users. Cambridge, M. A.: MIT Press, pp. 67–79.
- Zorn, I., Maaß, S., Rommes, E., Schirmer, C. and Schelhowe, H. eds., 2007. Gender designs IT. Construction and Deconstruction of Information Society Technology. Wiesbaden: VS Verlag für Sozialwissenschaften.