Internet Research from a Gender Perspective

Searching for Differentiated Use Patterns

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Abstract

The current scientific and political discussion on the under-representation of women within the Internet once again associates women with disinterest in technology in an essentialist manner. Gender-specific attributions are unquestioningly transferred to the new media, and it is assumed that women behave in unfailing conformity with existing gender stereotypes. The intention of this paper is to show that gender research has to use differentiated empirical studies. Gender studies can therefore make a concrete contribution to the task of shaping the Internet in the future.

I shall begin by briefly outlining the dilemma of gender studies in the technical area. In the second section I shall describe the reasons for the gender-differentiated Internet access data, using quantitative Internet studies from the USA, calling for a de-dramatisation of difference in this context. In the third section, I will overcome the dichotomous view of the digital divide and present a research framework for differentiated study of differing use habits and use requirements. This section illustrates that such an approach does not make the gender category superfluous, but challenges gender studies to present context-related studies, in which individual behaviour may be interpreted in the context of gender symbols and structures. My fourth step will be to explain how the new possibilities of online research can and should be used to gain further understanding in the sense of differentiated study designs. Finally, I will finish with a short outlook.

1. The Dilemma of Gender Studies in the Technical Area

Since the beginning of widespread public access to the Internet, numerous studies have indicated the under-representation of women within this new media. In Germany, women active in the fields of women's studies and politics have repeatedly called attention to this unsatisfactory situation, and Internet studies have uniformly identified this gender gap, prompting numerous activities on the policy side. Although regional women's Internet courses serve an important purpose, they also play a role in reproducing an image of women as deficit individuals in need of support. These activities are repeatedly justified using well-known gender-specific models of

interpretation. Women's problematic relationship with computers is cited as an argument, as computer culture is considered masculine. Supporters of such projects often point out that women rarely select careers or degrees in information technology or technology in general, as there is a lack of female role models. They refer to women's lack of technical competence, claiming that this makes it more difficult for women to use the Internet. These arguments associate women with disinterest in technology in an essentialist manner.

This form of reification of gender stereotypes once again illustrates the dilemma that affects gender researchers when we work on technology-related issues. If we analyse the differences – in this case in Internet access and Internet use – between women and men within the context of technology stereotypes effective within society, we may well prompt positive political activity to support the underrepresented women. At the same time, however, our analysis reproduces the gender inequalities in this field and contributes to their continuing existence. If we ignore the differences and take up the position that gender only plays an insignificant role as a social category, in view of the dissolution of traditional societal structures and wide scope for action, we very obviously fail to acknowledge the empirical facts, for example in the area of the Internet.

2. De-Dramatising Gender-Specific Internet Access

To this day, the gender gap in Internet access has not been closed. In Germany, 47.3% of all women aged 14 years and above had access to the Internet in 2004, compared to 64.2% of all men (Eimeren, Gerhard & Frees 2004). In the other European countries, men are also more likely to have access to the new media than women, although the differences vary. The same also still applies to the USA, where women's online rate is 61%, slightly below the men's rate of 65% (Pew Internet 2003). It is striking that none of the German studies investigates possible reasons for this persistent access gap. Explanations seem to be of no interest, or the access difference seems to be sufficiently explained using the argument of women's disinterest in technology.

In contrast, US scholars demonstrate an empirical pragmatic approach. For example, Norris (2001) studies European Internet access data and poses the question of which socio-economic or individual factors may be significant for Internet access. According to Norris, gender is a significantly less important explanation for the probability of Internet access than age, education and income. This is also true of Germany, although the gender-specific discrepancies are still significant in contrast with Belgium, Denmark, France, Portugal, Great Britain and Finland. Bimber (2000) goes one step further with his study, which focuses, however, on the situation in the USA in 1999. Using regression analyses, his findings can be used to explain the differing online figures for men and women on the basis of socio-economic factors, such as education and income, and individual factors such as age. Gender plays a minor and insignificant role in this context. Ono & Zavodny (2003) reach a similar conclusion on the US

situation in 2001, however they still establish gender-specific differences in access under a controlled gender variable for the years up to 1998.

Of course, these findings cannot be transferred one-to-one to the German situation. Gender researchers must assume that there are still gender-specific differences in specific age groups in Germany, in particular, that cannot be explained by differences in education and income alone. However, the effects of gender-specific division of labour and the resulting unequal distribution of education and income are also the primary explanatory factor for the distinctive access gap in Germany.

It would be an important task for the state financed institutes to make statistics available that do not stop at differentiating between men and women, but work with controlled inclusion of both gender and socio-economic and demographic factors, corresponding to good scientific practice. One first step in this direction is the gender mainstreaming evaluation of the (N)Onliner Atlas, published for the second time in 2003 (FTI 2004). This is a more intensive gender-based evaluation of the German Emnid research institute's findings on Internet access, on the initiative of the nationwide association ´Women Give New Impetus to Technology´. According to this study, the gender gap is no longer significant for 14 to 19-year-olds in Germany. 82.3% of all young men and 79.7% of all young women in this age group have Internet access. However, the statistics calculated in the study do not indicate to what extent the gender gap can become relative in other age groups, when taking income and educational differences into account.

The above findings do not mean that there is no longer a need for separate support for women's access to the Internet. In contrast, these programmes need to be extended to apply to women with low levels of formal education and low income. However, the focus of justification for such training programmes should change in future. It is not women's lack of technical understanding or the male stereotyping of computers which primarily prevent Internet access, but the continuing gender-hierarchical division of labour. Such an argument also illustrates, from a social policy point of view, that non-access to the Internet cannot be corrected primarily by women changing their attitudes to technology on an individual level, but that only a more gender-balanced educational and labour system and information programmes for varying life situations can be effective.

Socio-economic justification contexts also highlight the need for political action which goes beyond the politically declared objective of Internet access for all. It is important to investigate the inequalities within the net and to provide all citizens with Internet services corresponding to their varied and differing life situations and interests. However, a comprehensive analysis of the use and non-use behaviour, requirements and wishes of different groups of people is necessary to be able to make well-founded suggestions for these services.

3. Gender-Specific Inequalities in Internet Use

Studies carried out in various contexts reach the unanimous conclusion that men use the Internet more frequently and for longer periods than women. Women tend to be moderate users. In Germany, for example, male users spend an average 149 minutes on the net per day; female users reach an average of only 102 minutes, whereby the difference is particularly marked during the weekend (Eimeren, Gerhard & Frees 2004: 361). Gender-specific user frequency is also documented in the whole of Europe. For example, 49% of all male web-users in Europe use the Internet (almost) every day, but only 38% of all female users. The distribution in the groups ´several times per week´ and ´once per week´ is fairly balanced. 12% of all male users and 21% of all female users belong to the group of persons using the net rarely, i.e. once per month or less (EOS Gallup Europe 2002, p. 36). Bimber (2000) registers a similar distribution in the USA in the year 1996. Even in 1999, (almost) daily use was still significantly more common among male users. However, in the USA women have since overtaken men for moderate use and the group of rare users shows an equal gender balance.

There are currently few convincing explanations for this clear gender-specific use frequency and length, which does not appear to be resolved by the popularity of the Internet and almost balanced access rates for men and women, as can be observed in the USA or Scandinavia. The aforementioned study by Bimber (2000), which at least makes statements on the factors influencing these differences in the US situation, is only of limited use in this context. According to this study, along with education and, for men, full-time employment, gender is a decisive factor for frequency of use. This confirms gender-specific use, but the question remains as to why female web-users use the Internet less frequently and for significantly shorter periods than men.

Qualitative studies from a gender perspective attempt to find answers to these questions by passing them on directly to the users themselves. However, this approach tends to confirm existing stereotypes in society rather than finding differentiated answers for individual behavioural motives. For example, Heimrath & Goulding (2001) asked students and users of public libraries in Great Britain about the suspected reasons for differing use frequency, and received the corresponding stereotyping responses. Interviewees stated that men were primarily interested in technology for its own sake and women used computers for problem-solving. Due to more negative experience with computers in education and leisure, women were thought not to have a positive image of the new medium. Respondents also stated that very few women had begun to use the Internet on their own initiative, but the majority had been introduced by a man. In her survey of female Internet users in Australia, Singh (2001) revealed similar images. Respondents were asked about gender-specific differences in Internet use, and the study also reproduced the stereotype of women using the Internet as a tool for a broad spectrum of activities, with men tending to use it as a toy or trying to find out how individual hardware or software works in detail. It remains, however, unclear

whether these results simply reflect gender stereotypes or are based on actual behaviour.

Thus, research has yet to fulfil the task of not only studying but also understanding existing images and stereotypes in society and concrete behaviour patterns. Researchers should bear in mind Bimber's (2000) point that access and use frequency are not influenced by the same factors and must therefore be studied separately. However, there could be an indirect connection, in that men have had Internet access for a longer time on average. People with longer experience of the Internet, referred to as early adopters, use the net more intensively, as Howard, Rainie & Jones (2003) elaborate, which could explain the gender gap to a certain extent.

These individual approaches at explanation are, however, insufficient for understanding the use patterns of individual groups of the population. For this reason, it is essential for the future to establish which factors influence individual use habits – as well as studying the digital access divide. Hargittai (2002) suggests that researchers distinguish access differences – the ´digital divide´ – from use differences, which she refers to as the ´second-level digital divide´. However, this term maintains a dichotomous view of the digital divide. I am in favour of a more terminologically differentiating view of Internet use, and refer to ´dimensions of use´ which research must investigate.

The first step is to create a research framework that does not reproduce dichotomous stereotypes of masculinity and femininity, but establishes the (differing) importance of the gender category in the respective context by studying individual groups. Studies should not only include quantitative data such as use frequency and length for differentiating use habits, but also qualitative data, such as reasons for the use or non-use of certain services, or the connection between use and everyday needs. I have drafted a research framework (see Fig. 1) based on a model suggested by DiMaggio & Hargittai (2001). These two authors differentiate between various levels in studying types of Internet use, on which social and thus also gender-specific inequalities may be manifested. These are inequalities in technical equipment, in autonomy of use, in skills, in social support and in purpose of use. All five of these factors can influence use habits.

The model of use dimensions I have developed is based on three dimensions that are important for Internet use. However, these three dimensions – autonomy of use, media competence and variety of use – are themselves influenced by further-reaching factors. Thus, the extent of autonomy of use not only depends on the technical prerequisites, but also on individuals' possibilities for deciding when and where to use the Internet. The second dimension is media competence, which is influenced by the users' individual skills and ability to find social support as required. Variety of use is the third dimension. This depends both on the interests of male and female web-users and on the available services that may be of interest to each user.

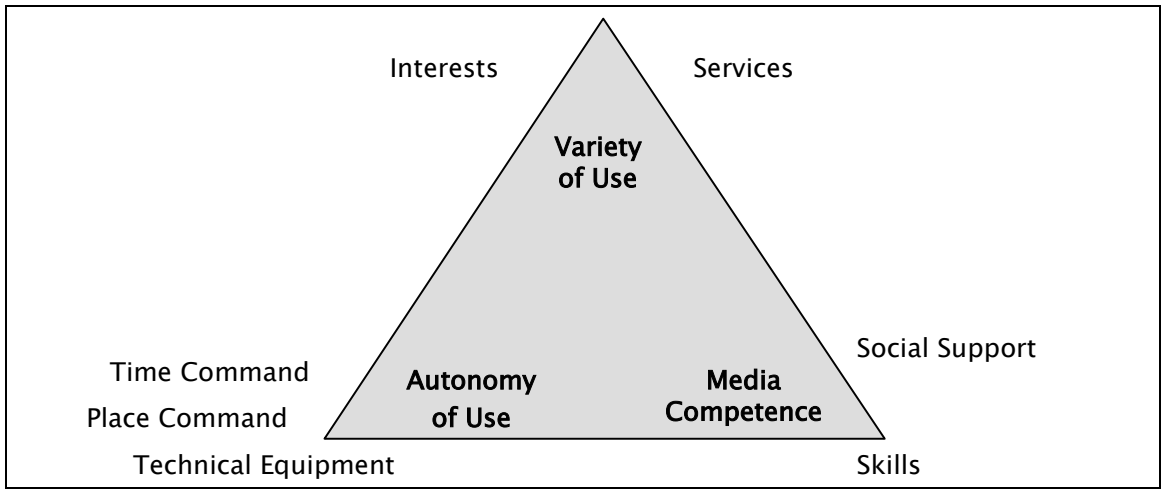

Fig. 1: Dimensions of Internet Use

3.1 Inequalities in Autonomy of Use

In my model, autonomy of use depends on technical equipment, place of access and time available. The European statistics do not indicate any great differences in technical equipment between men and women. However, men are significantly more likely to possess a fast DSL connection (15%) than women (10%) (EOS Gallup Europe 2002, p. 10). The same source shows differences in place of access. Although 74% of all male users in Europe have Internet access at home, this applies to only 67% of all female users. Women also have slightly fewer places of access (ibid, p. 32). This means that men's individual command over the place of internet use is greater than that of women.

Alongside technical requirements, which should be available in various places if possible, time available for Internet use is also very important. This factor is called time command in my model. There is no suitable data on individual command over time for Internet use. It is simply clear that people need time and peace and quiet to explore and permanently use the services of the Internet.

In the field of employment, there are indications that the existing horizontal and vertical segregation of the labour market can lead to differing amounts of available time. For example, researchers in the USA have established that, due to gender-hierarchical division of labour, men exhibit more intensive Internet use when in paid employment, because they carry out different jobs, and women use the Internet less, despite access at work (Nielsen & NetRankings 2002).

In this context, the new working hours survey carried out for the second time on behalf of the German Federal Ministry of Family Affairs, Senior Citizens, Women and Youth (BMFSFJ & Statistisches Bundesamt 2003) is interesting with relation to the situation in Germany. Whereas women work an average total of 43 hours per week, made up of paid employment (12 hours) and unpaid family work (31 hours), men work an

average total of 42 hours, of which 22.5 are paid and 19.5 unpaid. Men therefore have more time at their disposal for activities of their choice. It is probable that this division of labour, only hinted at by these figures, has effects on autonomy of time and thus on Internet use. However, this assumption requires further empirical investigation.

3.2 Inequalities in Media Competence

The second dimension in the use triangle, which I refer to as media competence, consists of the indicators individual skills and social support. It is repeatedly supposed that men and women have different skills, which lead to different use habits. One supposedly responsible factor is female technical incompetence, as mentioned in my introduction. Although we should take this stereotype seriously as researchers, as it certainly has an influence on use behaviour, we should regard the effects of such stereotyped images on individual behaviour in a differentiated way.

For example, studies carried out by Vogel & Heinz (2000) and Minks (2000) clearly show that there is a group of people interested in and competent with technology, in which men are over-proportionately represented, and also a group of people not interested in and not very competent with technology, which is overwhelmingly female. At the same time, this also means that there is a broad field between these two poles, made up of people of both genders interested in and competent with technology in many different ways, who are neglected by gender-polarising studies although they actually represent the majority.

Furthermore – and in this context more importantly – scholars must clearly distinguish between media competence and technical competence in the case of Internet use. Technical competence is primarily required when the system breaks down, that is when technical defects appear. In such situations, computer or technology freaks are often better able to correct these defects. However, a lack of technical competence can be compensated in these situations by recall to social support networks. The findings of an empirical study on teleworking we carried out show that women organise such social support in the event of technical problems more frequently than men.[1]

No gender-specific differences have been established as yet in media competence. For example, a study carried out by Hargittai (2002) in the USA found that gender has no significant influence on research skills on the WWW. 54 test subjects were set five identical tasks. The tasks were finding local cultural events, online music, information on the positions of various presidential candidates on abortion, tax declaration forms and art produced by children. The test subjects' approach was recorded by means of screenshots of the websites they visited. Skills were measured on the basis of successful task-solving and the time required. The study found clear differences between age groups and length of Internet experience, but no gender differences.

Yates & Littleton (2001) point out that, even in a highly stereotypically charged area such as computer games, skills are equally distributed among boys and girls when the games are placed in a non-gender-specific context. The above authors carried out a

study with girls and boys between the ages of 11 and 12, in which the context of a computer-based task was changed without making any changes to the software of the computer game. When the computer game was introduced as a ´game´, the boys were significantly better at solving the tasks contained within it. When the computer game was declared an ´exercise´ there were no gender differences, that is the skills for solving the task were equally distributed among boys and girls. A second study resulted in similarly surprising findings. Two structurally identical versions of an ´adventure game´ were produced, including problems to be solved. One game was called ´King and Crown´, the other ´Honeybear´. Both games required the same strategy. The bears in ´Honeybear´ were depicted as gender-neutrally as possible, whereas ´King and Crown´ contained more male characters. The girls' performance was significantly influenced by the software version; they were distinctly better at the ´Honeybear´ version. In contrast, the results of the boys were similar in both versions of the game.

These examples illustrate that there are no indications as yet of unequal skills between men and women in gender-neutral applications such as online research. In areas which are strongly attributed to one gender, initially perceived differences in skills can become entirely relative if the whole extent of usage is taken into account. Studies from a gender perspective should pay particular attention to context. With this in mind, I find the research design and the findings of Yates & Littleton (2001) a pioneering model for the methodology of gender studies on the Internet.

3.3 Inequalities in Variety of Use

The third dimension in the triangle of Internet use is variety of use. This includes both the users' interests and the services available to meet these interests. There have been few analyses of what women and men actually do on the Internet. Market research institutes painstakingly attempt to trace the routes of women and men as consumers. However, firstly, Internet users are not only interested in commercially oriented websites, but also in further education and training services or careers support information, sites on health or bringing up children, and secondly, these market research analyses are not usually publicly accessible. Internet research is therefore still in its infancy as far as the concrete interests of both users and non-users are concerned.

The same applies to the evaluation of Internet services. My own study on e-government portals on federal, regional and local levels in Germany illustrates that Internet services are far from being designed in a gender-sensitive way (cf. Winker 2004). Our quality criteria of gender-sensitivity investigate whether the content and services are, firstly, of interest to people with varying life experiences and, secondly, whether they are easy to find by implementing suitable search functions (Winker & Preiß 2000). The intention of this test of gender-sensitivity was not to differentiate dichotomously between women's and men's areas, but to call attention to the fact that interesting or time-saving Internet services must also be developed for areas of work and life with female connotations. Mainly women, but also many men, for example those who engage in family work, could profit from this development.

The primary aim of this approach of heuristic evaluation of online services is therefore to examine the range and variety of information provided. The above study shows, for example, that fields of activity that take up a great deal of time for people with family commitments are still hardly supported by e-government programmes. To change this, it would be necessary to take subjects such as health, social matters, childcare and voluntary work into account alongside business and tourism. As a rule, the relevant portals contain only static HTML information on these subjects, but no updated dynamic information or even applications providing transaction possibilities for concrete life situations, and thus helping people save time.

I can illustrate this point using the example of the presentation of crèches, nurseries and after-school childcare facilities in Germany. Most cities and local authorities provide only an alphabetical list of all childcare facilities with addresses and telephone numbers, which provides no added value on the local telephone directory. In the best case, facilities can be sorted by area and additionally by type of service. Parents can only search for available childcare places in exceptional cases such as the city of Frankfurt. It is only this kind of further-reaching presentation of information which creates public transparency as well as practical advantages for parents – even if it cannot solve the many problems of state-run childcare.

There is also a need for research into how issues and problems frequently previously treated as private matters, such as violence against women and children, are made public via Internet sites. All too often, sites simply list the general emergency telephone numbers for police, ambulance and emergency medical care under ´Emergencies´. The website of the city of Hannover, in contrast, provides a positive example by listing the telephone number of the local women's refuge, an emergency number for rape victims and the telephone number of an organisation for the protection of abused women and girls on this same level.

I can illustrate the second criterion of gender-sensitivity, namely providing practical search functions within the portal itself, using the example of doctor databases. It is still impossible, in far too many cases, to search for female doctors in a larger database. There is a simple technical solution to this problem, as Bremen's ´Doctor Navigator´ shows; however, programmers and designers have to think of this differentiation in the first place. Continuing education databases in which users can search for target groups show the importance of gender-conscious search possibilities. The city portal of Bremen, for example, is an excellent example. Users can further restrict the target group ´women only´, meaning women's seminars, for instance to search for courses for ´returners to work´. But it is also possible to search for ´men only´, i.e. men's seminars, so that women are not treated as the exception once again.

These examples show that both the empirically measurable content preferences and the range of service and its usefulness for various user groups must be included in further studies on use behaviour.

4. Gender-Sensitive Internet Research Using Online Research Methods

In order to achieve findings on the behaviour of various groups in differing contexts when using different Internet services, researchers must include quantitative and qualitative online research methods, for reasons of financial and time capacity alone. The two main data collection methods are online questionnaires and online interviews. Online interviews (Mann & Stewart 2002) and online questionnaires (Tuten, Urban & Bosnjak 2002) are particularly suitable for statements on users' use habits. Although the issue of representativeness is an unsolved problem in online surveys (Hauptmanns & Lander 2001), they can enable polls for which representativeness plays a minor role, such as evaluations of websites. These methods are also suitable for carrying out studies with an exploratory character.

In addition, further online research methods that allow insights into media-related behavioural practice on the Internet are particularly important for the current status of gender studies. These include possibilities of recording communicative sequences, such as exchanges in chats, forum contributions or e-mails within virtual groups. Another very interesting possibility on the client side is logfile analyses, with which individual surfing and searching strategies can be retraced and analysed. These online methods enable new insights into concrete means of use of the Internet.

All the digital documenting methods for data collection can be used to show individual behaviour data that could previously only be gathered using participatory observation. In contrast to participatory observation, the data material is neither transitory, nor the result of the impression of an individual researcher who perceives behavioural sequences through the filter of his or her own background of experience. Stegbauer correctly points out that previously non-existent possibilities of social research have arisen with the emergence of new Internet-based social spaces. Interactions are transitory, and are difficult to fully document in real social situations. Such problems do not apply to the study of asynchronous Internet-based social spaces. All communication processes in mailing lists and newsgroups are archived and can be made use of for studies. (Stegbauer 2001, p. 90)

The new documenting possibilities are also an important addition to the traditional instruments of social research. I am currently involved in a research project on the use of the Internet by women's policy networks (Schachtner & Winker 2005), and our experiences show how difficult it is to carry out polls on concrete online behaviour. Interviews with women's policy activists do provide very varied information on their assessment of the Internet, but their descriptions of their own use behaviour rarely go beyond the fact that most of them use Google for searching, and one or two frequently used addresses. This is hardly surprising, as no differentiated language or established structuring exist as yet. It is therefore difficult for individuals to become aware of their own information and communication behaviour. It is easier to find out individual

attitudes to the Internet in an interview situation. The women's policy activists we have interviewed can be divided into three distinct groups that can be described as optimistic, sceptical and emotionless towards the possibilities of the Internet. However, actual behaviour on the web appears to be only loosely linked with these attitudes. The research project has documented the search strategies of a study group of 20 female students in answering 10 questions on women's policy, and established that their approaches were extremely varied. This is particularly remarkable as the Internet experience within the study group was on a fairly equal level (Carstensen & Winker 2005).

In addition, digital documenting methods are an equally important research focus with which ´collective orientation patterns´ (Bohnsack 1997) can be reconstructed. The aim of this research is to establish explicit interrelationships of meanings, from which media-related behavioural practices of different groups, and thus also forms and styles of Internet use, result. Schäffer (2003) details these ´media use cultures´ primarily in their generation-specific form. Buchen & Philipper (2002) focus on media cultures specific to types of schools and gender. Both studies succeed in reconstructing stereotypes towards which individuals orientate. For example, Schäffer describes the chat culture of school-age girls and Buchen & Philipper draw attention to the ´computer freaks´ among young men at German intermediate secondary schools.

These media practice cultures are not, however, identical with concrete behaviour on the Internet, on the basis of which researchers can observe very different behaviour – although this is influenced by the symbolic settings and the structural conditions of division of labour. For example, the experience-linked knowledge represented within a group does not necessarily equate with the individual skills of the members of the group. As social scientists, we can only make statements on how ´doing gender´ functions in practice and where tendencies of ´undoing gender´ can be observed when we examine concrete online behaviour in differing contexts, in conjunction with revealing gender-stereotyping collective orientation patterns.

In future, due to the description of concrete Internet behaviour, male computer freaks will no longer be the focus of analysis, but more differentiated use behaviour by varied user types can be discovered. For example, young male chatters will appear, who were previously lost in the all too simple contrast of girl chatters and boy players.

It is therefore important to incorporate various perspectives into research designs in future, in keeping with the demands of triangulation. A practical approach is to reconstruct the collective orientation patterns within a group, as well as documenting and interpreting the Internet behaviour of the members of the group. Researchers can then make statements on how gendered subjects use the Internet, and thereby reproduce or even de-dramatise their own or outside gender-specific attributions. Hierarchies of power, institutional constraints and cultural attributions do, of course, limit scope for action, however cultural gender-specific orientations can also change

through media behaviour. As social scientists, we must do justice to these processes of construction and deconstruction by using a suitable variety of methods.

In addition, new forms of online research can continue traditions of women's studies, in which it has always been important to show alternative routes of action in the sense of action research. In the research project on the significance of the Internet for women's policy networks mentioned above, the findings of a heuristic evaluation of web presences of German women's networks has been made available online (see Carstensen & Winker in this volume). This was simultaneously conceived as a prototype, so that new search strategies are not only described on the website, but can also be explored directly (Taube & Winker 2005). These and other possibilities were discussed on a national level by experts at a special future workshop that was conducted online. In this way, Internet research can make a concrete contribution to shaping the Internet itself.

5. Future Prospects

To sum up, one important future task of research is to study the varied process of co-construction of gender and Internet. This paper has shown that structural factors take effect in the case of the access gap, in connection with the gender-hierarchic division of labour. There is a lack of comprehensive data on gender-specific use of the Internet and particularly of analyses of explanations. Interests and requirements based on differing experiences of life and work certainly also have gender-specific effects in this case. At the same time, Internet use in particular shows collective behaviour patterns which are related to technology-related gender stereotypes. However, it is still extensively unclear in which concrete everyday situations these stereotypes are kept alive via processes of doing gender, and where they are at least partly deconstructed.

Particularly interesting for gender studies is the current process of transition, in which the Internet, with its previously technical connotations, is being transformed into non-technology. This is always the case when many women appropriate a technical artefact and integrate it into the contexts of their lives (Wajcman 1991). The Internet is currently still in a transitional situation; technology still emerges, especially in moments in which it does not work or in the case of more recent developments such as videostreaming or 3D animations.

The research concept for gender-sensitive Internet research I have presented here is ambitious and multi-facetted. It promises new findings through the consistent use of new online research methods and methodological scrutiny of dichotomous gender research. These findings do not stop at simply portraying the status quo, but lead to concrete tasks of shaping the future, which can also be realised in principle through the new medium of the Internet.

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Notes

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[1] This evaluation is not published. Other findings of the teleworking study are included in ed. G. Winker 2001, Telearbeit und Lebensqualität. Zur Vereinbarkeit von Beruf und Familie, Frankfurt/New York, Campus.