Differences in Internet Usage - Social Inequality and Informal Education

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1 Introduction

Today, the internet is regarded as the central resource for knowledge and information. Associated with this is the idea that everyone is able and even expected to serve himself or herself according to his or her own needs via this medium. Since more and more services (banks, universities, schools, public administration etc.) are delivered online the internet seems to allow its users to enjoy specific advantages in dealing with their everyday life.

However, using the internet is based on a range of preconditions. New results of empirical and theoretical research indicate the rise of a social divide in this context. Within the internet, different ways of use can be identified alongside social inequalities. Boundaries of the „real life" are mirrored in the virtual space e.g. in terms of forms of communification[1] and spaces for appropriation (in a sense of self-formation processes of social actors). These are not only shaped by *invidual* preferences but particularly by *social* structures and processes. This appears in two dimensions: by processes of social closure and by service structures which only reach special target groups – prevalently in contrary to their own intention.

In the context of the broader debate on education it is stated that formal educational structures are to be completed by arrangements which are structured in informal respectively nonformal ways. Particularly the internet is suggested to play an important role in this respect. However, the phenomenon of digital inequality points to limitations consolidated by effects of economic, social, and cultural ressources: Economical resources affect opportunities of access, priorities of everyday life shape respective intentions of internet use, social relationships have an impact on the support structures available and ways of appropriation reproduce a specific understanding of informal education[2] ("informelle Bildung"). This produces an early stratification of opportunities especially for the subsequent generation and may lead to extensive inequalities regarding the distribution of advantages in terms of education.

Thus, the capacity of the virtual space in terms of participatory opportunities and democratic potentials raises concerns of major relevance with respect to social and educational policy. From the perspective of different disciplines involved in these issues it is essential to clarify this question in an empirical as well as in a theoretical way and to make it utilizable for a future-oriented practice.

In particular, the following questions can be central for the analysis of digital inequality and its implications for educational arrangements on the internet:

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[1] The term 'communification' reflects the *social* structures, processes and dynamics of 'virtual communities'

[2] For a more detailed discussion of the concept of 'informal education' used in this research context see: Otto 2005

- What are the impacts of technical equipment and social sites of access with respect to online participation?
- How do social preconditions influence differences in using the internet and which are the consequences for young people's ways of use?
- In which ways are aspects of the "real life" and the "virtual space" related regarding the facilitation of different ways of appropriation?
- Which preconditions are required for opening up new spaces of education for young people via the informal structure of the internet?

2   Methodological Approach

Methodologically, in order to focus on the above questions the research was conducted from three distinct perspectives aiming at analyzing the diversity of internet use: guided interviews and interviews while surfing ("surf interviews"), a quantitative questionnaire survey and the qualitative content-analysis of an online forum.

First of all, by means of a qualitative and explorative methodology the phenomenon of diversity in using the internet among young people was explored at a detailed level by guided interviews and interviews while surfing ("surf interviews"). Special emphasis was placed on the processes of appropriation (see below). All in all 50 structured interviews and "surf-interviews" were carried out with young people aged between 11 and 23 years. These interviews correspond to their socio-demographic background (e.g. gender, migrant status, age, family background, place of living) and especially their educational background, to their internet experiences, habits, preferences, to personal difficulties using the internet and especially to chatting. These interviews were conducted in summer 2003 in public youth institutions in Germany (Kutscher, 2003; Otto et al. 2004; Iske, Klein, Kutscher, 2004 a / b; Otto, Kutscher, Klein, Iske, 2005).

Based on the experience of interviewing young people from different social strata the CCIE (Center of Competence for Informal Education, University of Bielefeld) has developed a method called "surf interview" to generate multidimensional data as a combination of interview and participant observation. The "surf-interview" is of special value in those cases, where the act of verbalizing personal experiences forms an obstacle, which as a matter of course cannot be met within the scope of an interview. Therefore people are interviewed while surfing on the internet. This combination functions as an initial point for instigating verbalizations as well as getting further data about use patterns, i.e. favourite internet sites, navigational processes, search strategies and about communicative processes. Besides pure observation the "surf interview" includes the performance of tasks concerning e.g. searching for information, navigation on unacquainted sites and appropriation of new communication sites. The interviewees are accompanied by a researcher, who is asking immanent questions about their acting as well as about the rationale of the performed tasks. Furthermore the researcher takes notes with a main focus on differences between intended and observed behaviour. The interviews are recorded using screen-recording software. Our interpretation refers to the transcription of the verbalisations and the observations of the performed tasks as well as the interviewers' notes. Thus, self-estimations of the participants could be analysed and differentiated in the analysis. Eszter Hargittai (2002) uses a similar method in her research but in contrast to her focus the "surf interview" is oriented in informational as well as communicative uses. It aims at a deep exploration of use habits by applying an open approach of interviewing and observation.

On the basis of the results of the interviews a quantitative questionnaire survey was developed focusing on internet use habits, preferences, problems and the socio-demographic

background. Special emphasis was placed on the connection between the every day internet use and the social context of using the internet, especially on the educational background.

A first survey was carried out in the course of the International Radio Exhibition (Internationale Funkausstellung – IFA) in Berlin, September 1-3, 2003. A second wave was conducted in public youth institutions in autumn 2003. This survey focuses on the influence of the formal educational background on the actual online use. In that, this questionnaire differs from other surveys exploring digital divide which are primarily concerned with the question of technical premises of internet access. The quantitative questionnaire survey is based on a sample of 360 respondents, aged between 14 and 24 years with an average age of 17 years.

Finally, the aspect of participation was examined based on qualitative content-analysis of an online forum. The forum analysis was conducted in public forum of one of the biggest german speaking online counselling services (Klein, 2003; Klein, 2004a; Otto et al. 2004). Currently more than 10,000 users are registered members of this counselling service with more than 50,000 postings online. This article refers to a qualitative content-analysis of the feedback-forum with a total of 164 postings.

3 Self-Appropriation and different ways of use in the internet

Focussing the question of formative processes and ways of self-appropriation in the context of the internet, ways of everyday internet use come into view. By navigating, communicating and expressing oneself within the medium processes take place that can be described in Leontjew's understanding of self-appropriation by acting in a social context (see also Kutscher 2005). Peter Sawchuk draws connections between Leontjew's theory of activity and processes of informal learning (Sawchuk 2003, 217) and particularly points to the value of use that could represent a focal point to find out about the hidden learning capacities of underserved groups and to reconstruct their special idea of use. According to Leontjew's theory appropriation is being realized by single activities, initiated by motifs, actions that are aiming at deliberated targets and operations that realize an activity.

On the background of this educational theory, activities of everyday life can be analyzed as appropriative actions containing formative processes. Thus, the users' interests come into view and can be the initial point from which structures for informal processes of self-appropriation can be defined from a user-perspective.

The dimensions of these processes can be focussed according to Dolic/Schaarschuch (2005, 115) as appropriation as *learning processes* and as *self-reflection*. This means that appropriation as an informal educational process contains the acquisition of knowledge, capabilities etc. as well as some kind of readjustment of the relation of the self.

On this background, the results from qualitative interviews conducted in the context of the CCIE project can be reinterpreted. Looking at the reports about everyday internet use of the young people interviewed the following can be stated:

Obviously, the variability and capabilities of use depend on socio-cultural resources. Especially the educational background as well as peer structures, family background and other social support structures seem to provide the basic conditions for differences in usage. Chat is the main starting point for youth using the internet but when looking closer a difference can be found between those with a higher and those with a lower formal educational background. This differentiation has to be considered in the framework of Bourdieu's capital theory as the cultural capital has impacts on and interconnections with other sorts of resources such as social and economical capital (Bourdieu 1983). Between the young people with different formal education differences showed up in terms of variability of use. The first ones started once with chatting but found it more and more boring and went

further appropriating other websites and ways of use. The second ones stayed with chatting and some even did not visit other sites in two years. This seems to be particularly connected with their supporting networks such as family and peers but also with educational values and habits of the social environment. If the search for reliable information is part of the daily life, this habit is most probably much more active in the context of internet use, too. We also found clues that members of socially disadvantaged groups partly tended to be geared to dominant social cultures. For example, some of the migrant youth described themselves in chats as blondes, blue-eyed or a lot of students from working class with lower educational levels pretended that they were going to higher secondary schools and placed emphasis on accurate orthography in writing in chats whereas the formally higher educated seemed not to bother about correct writing. Beneath that, different and contradictory ways of presenting identity could be found according to the individual context and intentions. The hypothesis developed from these findings is that symbolic representations of social status continue online. Another important observation is that local structures are basic for online use of young people. E.g. in the biggest chat rooms they prefer to go to a chat room named after their city (or if migrants: their home country) and to meet people from a similar background. Migrants we have interviewed often use to chat in their mother tongue in such chat rooms. This also indicates processes of social closure and poses questions in terms of integration and communication theories.

Thus, not only social differences have an impact on online use but processes of appropriation in the virtual space also seem to affect offline resources. This supports the knowledge gap hypothesis of Tichenor et al. (1970) and Bonfadelli (2002). In this context, the question of motivation for internet use arises (Katz/Rice, 2002, 27; Neu et al. 1999). According to their educational status, the reports from the youth in this research differed regarding their motivation in use: those with a lower formal educational background reported mainly about trying to kill time, avoid boredom and having fun whereas those with a higher formal educational background mentioned fun as a source of motivation but also e.g. finding relevant information. These differences in motivation have a strong impact on how the persons cope with use problems. If someone e.g. only aims at not getting bored, the motivation to solve a problem in understanding contents or structures of an internet site might be lower compared to someone trying to get certain subjectively relevant information.

The differences described and based on social inequalities reproduced in the virtual context point to significant challenges in the context of developing informal educational arrangements for young people in the internet.

4   Differences in internet use and the impact of the formal educational background

The results of our empirical quantitative and qualitative research support the assumption of Digital Inequality and demonstrate the crucial role of the formal educational background[3] in explaining differences in internet usage among young people. It goes without saying that Digital Divide as technical access to the internet is an obvious condition precedent for using the internet. At the same time the discussion about internet diffusion and rates of onliners and nonliners covers existing differences in actual internet usage (DiMaggio et al. 2004). Generally, the discussion about Digital Divide and Digital Inequality resumes the knowledge-gap-hypothesis (Bonfadelli, 2002; Tichenor et al., 1970), which claims a growing gap between people who have access to and are able to make use of information and those who are not.

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[3] In the questionnaire survey, the variable „formal educatsonal background" was composed of „presently attended school" respectively the "highest reached school grade".

The quantitative questionnaire survey was designed rather as a heuristic tool than a representative survey and exemplifies the existing differences and correlations in using the internet. Multivariate analyses show digital inequality in use among young people, which can be attributed to the formal educational background. Beside socio-cultural resources like family background, peer structures and social support in general, the formal educational background turns out to be the main factor for explaining differences in internet usage.[4] For example strong correlations were found between the formal educational background and the activities like sending email, registering at internet sites, judging information on the internet, rating quality of internet sites, contacting internet sites and "self-assessment of the change in internet usage". These findings are intertwined with the question of online-participation: The availability of an email-account has a crucial impact on internet use, due to the fact that participation in a lot of internet-sites is based on registration, which in turn is based on the availability of an email-account. Otherwise participation is restricted in most cases or the user is dependent on the possibility of an instant use. Consequently registration and the availability of an email-account can be considered as an obstacle which tends to exclude young people with a lower formal educational background.

5 'Voice Divide' – participation as an exclusive good

To the degree that empirical studies on differences in internet use take social contexts into account the myth of a technical savvy youth 'via generation' turns out to be misleading. This general insight has fundamental implications with respect to net based social services, their social and technical arrangements and the cultural modes of their delivery. Referring to Social Work and its proper aim to compensate the reproduction of social disadvantages – whether they are medial or not - the ways in which young people in different social positions get access to and utilize net based social services are to be analysed.

Without a shadow of a doubt in arrangements of social services in the internet a notion of participation seems to be really popular. However, to be meaningful a concept of participation has to reflect at least the possibility to articulate own interests, the socially different (pre-) conditions for this articulation, and the possibilities that the articulated interests are being heard.

Reflecting Digital Divide as only one form of Digital Inequality the following aspects may describe an in-use dimension of the Digital Divide which may appropriately be analysed as 'Voice Divide'. Adopting Albert O. Hirschmans concept of „Voice, Exit and Loyalty" (Hirschman 1974) the notion of 'Voice Divide' does not only refer to technical and 'formal' but to 'effective' social access to various types of net-based social services. According to Hirschman voice, exit and loyalty are different options in order to deal with dissatisfaction within a service etc.: While 'loyalty' points to a 'loyal sticking to the given' (also in the sense of bearing it), 'exit' refers to 'migration' into an other service – what actually depends on whether more attractive alternatives are available at all – and 'voice' refers to an articulation of dissent and ones own preferences.

In the context of offline social work arrangements the capabilities to articulate 'voice' and an equitable implementation of 'voice' are regularly portrayed as an indicator for the 'democratic quality' of the service (Schaarschuch 2004). The opportunity to articulate voice however is tied to a number of requirements. Structurally anchored feedback mechanisms (i.e. spaces for articulation) allowing that exceptions may be asserted at all are required. Furthermore an

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[4] The importance of the variable "formal educational background" for explaining different ways of internet usage was especially clarified in comparison to the influence of variables like "sex", "age", "period using the internet", "self-assessment of one's internet capabilities", "origin of the parents" and "place of residence" (Otto et al. 2004).

effective realization and a sensible scope of the voice option are always embedded in power structures of the arrangement. Thus, even if there are spaces for articulation - and even if they are a central element - the democratic equality of the users is not guaranteed but there is still the possibility that certain groups of users communicatively dominate over others. This is especially true with respect to the power relations in the internet because there are – even more than in real life – constituted by what Johanna Dorer calls 'communication dispositive'. Standardization and discipline are not only and not primarily enacted through prohibition and censoring but rather "through the imperative of permanent consumption, interactivity and participation" (Dorer 1997: 253, own translation). The corresponding instances of control tend to be created though the interplay of all communicative instances.

The core results of the analysis of the feedback forum show that the structural anchored spaces of articulation (feedback-rooms) are intensively used, and important dimensions of quality of the arrangement and the counselling processes are negotiated inside these spaces.

The content analysis enlightens a double reference of the articulated user interests: To the structure of the medial arrangement itself as well as to the structure of communication within this arrangement. In detail, on the behalf of the users, participation and interest articulation pre-conditionally requires (a) a perception of the service as to be convertible at all (b) a positive valuation of the arrangement as a whole, and (c) a general or personal expression of 'legitimate need' as reference for substantiation of the claims. On behalf of the professionals of the service, the possibility of user participation and interest articulation is impacted by (a) a transparent and immediate reply, (b) the recognition and appreciation of users incitation, (c) a structural openness for and an articulated desirability of user articulation, and (d) pointing out alternatives within the arrangement.

In summary, at the level of the online-arrangement three central criteria for participation can be analysed: Medial Suitability, Content Suitability, and Interpersonal Suitability (for details: Klein 2004, Klein 2005, Otto et al. 2004). Medial Suitability refers to convergences in structure (In which kind of medial structures / forms [i.e. chat or forum] can users receive support?). Content Suitability refers to thematic convergences (To which kind of themes can users receive support?), and Interpersonal Suitability refers to the questions of informalisation and homogenisation (Whose support can users receive?).

Consequently, structurally anchored possibilities of participation are essential but non-sufficient conditions for an arrangement that is sensitive to social stratification: The central tendency in this kind of 'rooms of negotiation' is that the arrangement is modified on behalf of particular and dominant user groups: A modification of the in the interest of those, who pipe up.

Thus, for the further analysis following insights are crucial:

• The articulation of interest and participation is bounded on conditions precedent.
• The arrangement fulfils these conditions only for a specific group of users.
• The users, who pipe up and those, who do not can be differentiated with respect to the suitability between themselves and the given structures and processes within the respective online arrangement.

Pure consumerist practices of participation will rather potentiate than alleviate these divergences. Their user friendliness is only spurious; on the downside of the 'Voice Divide' they enforce social exclusionary processes: First results of quantitative survey data (Livingstone 2004, Otto et al. 2004, 2005) show that the barriers and borders of online participation and interest articulation follow the social structure offline. Thus the wisdom of Matthew seems also be true for the net: ‚success breeds success‘.

6   Creating opportunities – reflecting education

While the diffusion of the internet increases among the total population and *digital divide* seems to diminish in terms of technical access, differences in usage of the internet in the sense of *digital inequality* remain largely unaffected. Based on the empirical results it is demonstrated that the perspective of digital divide as technical access is insufficient. The discussion about onliners and offliners among the population conceals significant differences in use habits among internet users and does not provide explanations for this phenomenon (DiMaggio et al. 2004). Rather, a consideration of different use habits is required. These habits are based on the different interests and capabilities of users and on general socially differing preconditions.

For analyzing and explaining use differences, the variable "educational background" plays an essential role in the dimension of information as well as of communication.

All in all these results have an impact on future research: the variable educational background should be taken into account as an elementary aspect of research about Digital Inequality and Social Inequality. In addition, it seems worthwhile to differentiate and analyze the educational background in a more detailed way and in particular to bring informal aspects into a clearer focus.

Regarding online counselling in forums it was demonstrated that a mere provision of technical facilities cannot be equated with matter-of-fact articulation of interests. It is an essential but not sufficient precondition and basically bound to different forms of suitability.

If articulation of interests and co-determination are taken as a central point of reference for democratic quality of net-based social services, a inequality-sensitive reflection of the ways of participation (and thus voice divide) is essential in order to offer a plural and effective accessibility of internet services. Thus, it seems to be a reasonable research perspective to complement the notion of „voice divide" with a perspective of „voice inequality". Whereas voice divide aims at users who articulate their interests and those who do not[5], voice inequality is more likely to focus on the constitution of communicative processes and to reflect on how actors involved are granted influence respective which appraisals they receive on their statements. A perspective of 'voice inequality' may thus help to find out about the "relational inequality of relations" (Kreckel 1992) and its consequences in terms of access to different internet-based services.

The above mentioned differences and inequalities shape the opportunities of young people also in terms of enabling processes of self-formation and appropriation. In general, internet usage can be interpreted as an informal formative process insofar as youth appropriate information, knowledge, technical as well as communicative and reflexive capabilities by using the internet. Those processes of self-appropriation (Sawchuk 2003) are connected with processes of transformation and reframing (Marotzki 1990). This process is linked with preconditions beyond the virtual space. The existence of social inequalities in „real life" which implicates different degrees of access to necessary resources such as social, cultural and economic capital as well as the continuation of these unequal accesses on different levels in the virtual space represents a vital challenge for education and pedagogy.

In conclusion it is imperative to create and enhance online services that reflect inequalities in access and usage while structurally considering difference in order to provide and safeguard a space of potentiality for appropriation and education which is sensitive and overcoming towards inequality.

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[5] See also Stegbauer (2000) and Stegbauer/Rausch (2001) on the issue of posters and lurkers in online discussions.

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