

Social Inequality in the Virtual Space: How Do Young People Use the Internet?

Results from Empirical Research about Online Use Differences and Acquiring Patterns of Young People

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II Summary of Results

The Centre of Competence for Informal Education (CCIE)¹ at the Faculty for Pedagogy at the University of Bielefeld, Germany, is currently examining the *use patterns of young people in virtual space*. This research is promoted by the German government, i.e. the Federal Ministry for Families, Seniors, Women and Youth (BMFSFJ) within the context of the Federal Initiative "Youth to the Web"². The core of this study which presents first results of this research focuses above all on the investigation of the differences in Internet use by young people of different social origin ("digital inequality")³.

Based on analyses of structured interviews, a first questionnaire survey and of feedback forums situated in the context of online counselling, the present study refers to a wide range of methods and topics in this special field of investigation. Its insights might go beyond those of other investigations and come up with new questions in the discussions of educational and youth policies.

The results of the qualitative and quantitative data collection concerning the different styles of use and Internet acquiring patterns clearly demonstrate that the socio-cultural conditions of young people's „off-line life“ will also affect their online use. In particular, the young people's educational background as well as their social environment is of central importance here. Significant differences are found between people with a higher and those with a lower formal educational background regarding their skills in Internet use.

Similarly, virtual space also provides informal educational facilities by means of communication, interaction and self-steered information acquirement. Nonetheless, social differences are relevant here as well, both as a precondition for a successful online use and regarding the resulting advantages from that use referring the life outside the Web (see also Otto/Kutscher 2004).

Thus, the participation of different groups in online structures with regard to their options to express opinions and representation of their interests, requires an

¹ Kompetenzzentrum Informelle Bildung (KIB) – see www.kib-bielefeld.de

² Bundesinitiative Jugend ans Netz – see www.jugend.info

³ This research was conducted by the research group at the CCIE, Stefan Iske, Alexandra Klein, Hans-Uwe Otto and Nadia Kutscher, with transcriptional support from Birte Klingler and Ulrike Schmitt and layout support from Hülya Kaya.

inequality-sensitive reflection of participation opportunities concerning the different social framing conditions of the young customers ("voice divide").

The present study on differences in Internet use by young people takes into account social context, and thereby challenges the myth according to which the Internet *eo ipso* will lead to real participation and equal benefits for all users. Rather, it becomes clear that in the virtual space, too, stratification patterns are socially reproduced. *If it is the aim to provide the possibility of competent Internet use and informal educational share to all users, more attention will have to be paid to the development of online offers regarding their structure and their content with special care about socially unequal using conditions.* How this may actually be done without reintroducing social differences through the "backdoor", must be subject of further empirical examinations referring both to the users' perspective and to discussions about educational theories and policies alike.

Bielefeld, December 2003⁴

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⁴ We thank Heinz Messmer for the translation of this paper in Winter 2004/2005.

III Introduction

For the last couple of years, a discussion has been going on – in Germany as much as elsewhere – about the problem of socially caused different accessibility of new media, particularly of the Internet. Larger initiatives like "Schools to the Web" or the recent Federal Initiative "Youth to the Web", which is promoted by the Federal Ministry for Families, Seniors, Women and Youth (BMFSFJ), are attempts to overcome the problem of access inequality. First of all, *differences of accessibility*, i.e. the availability of personal computers and Internet connections came into view. With respect to the so called "*digital divide*" phenomenon, there exist numerous investigations on a national and international level today (see, for example Bimber 2000; Bolt/Crawford 2000; Bucy 2000; Chen/Wellman 2003; Groebel et al. 2003; Kubicek 2002; Lenhart 2000 and 2003; Norris 2001; Welling/Kubicek 2000; Wilhelm 2000; Wresch 1996; Warschauer 2002). Although these studies partly present contradictory results – access differences exhibited by these studies are estimated between user rates of close to one hundred percent and a rate of roughly forty percent of constant young off liners (see Ziegler 2003) – they largely agree that there still is a strong need for material equipment on the side of the socially disadvantaged youth.

A further and regarding its consequences far more important aspect however is related to the question of *use differences* among young people. There are clear indicators pointing to the fact that the availability of technical equipment alone will not be sufficient to initiate an extension of use competences. While in public discussions the dimension of technical equipment is understood to guarantee participation in an information and knowledge society, current studies increasingly come to the conclusion that inferences about the de facto Internet use drawn alone from access analyses are fairly restricted. Therefore, each reduction of this debate to matters of the availability of personal computers and/or Internet connections must be considered critically (see Oy 2001, 93; Mossberger/Tolbert/Stansbury 2003; Ziegler 2003; Rifkin 2002). Up to now, only few studies provide valid data regarding this question. *Use differences* (for instance concerning the question: "Who uses the Internet in which way?"; "What are the problems?"; and "Which restrictions and which differentiated requirements apply to the individual target groups?"), *acquiring patterns* (e.g. "How do different target groups master the available information possibilities,

knowledge provision, communicative and educational facilities?"), and the *basic question* referring to the conditions of informal acquirement are still unexplored to a large extent.

This phenomenon is better labelled under the term "digital inequality" (Hargittai/DiMaggio 2001; Mossberger/Tolbert/Stansbury 2003) and refers to the differences concerning the online using styles of young people against their different socio-demographical background. This problem is central to the work of the 'Centre of Competence for Informal Education' (CCIE) at the Faculty for Pedagogy at the University of Bielefeld, Germany. Its interests lie in the examination of different use preferences, use habits, use experiences and use problems of young people with different socio-demographic background by means of qualitative and quantitative analyses. First results, which emerged in the context of a comprehensive empirical accompanying research as part of the Federal Initiative "Jugend ans Netz" are to be transferred into the overarching conceptualization of an appropriate Internet 'youth-portal' and also into the accompanying media-educational, 'bildungs'-theoretical⁵ and youth welfare service-referred measures alike.

During their online use, young people deal with information and knowledge and acquire new capabilities (e.g. technical operating skills, communicative competences, reflexive capabilities, media critique etc., cf. Baacke 1980). They learn to deal communicatively with information, structures and persons in the course of their social interaction. Thus, 'informal education' will also take place in the virtual space. Apart from the individual acquirement of contents, structures and capabilities, young people using online structures will also develop themselves within that virtual environment.

At the same time, however, as many studies (see Schönberger 2000; Warschauer 2002; Picot/Willert 2002; Norris 2003) demonstrate, the frequently conjured expectations about the Internet (e.g. democratization of access to information, participation opportunities for everybody, levelling of social differences by the anonymity of the Web, etc.), depend to a large extent on off-line context conditions such as reading abilities, technical skills, foreknowledge, critical reflection capabilities, and the like (especially with respect to the relation of writing and

⁵ We talk here about a specific term of education, not in the sense of learning or acquiring certain knowledge or information but a holistic term of education as appropriation of knowledge, capabilities and personal growth (see below).

education, see Sting 1998). Based on the Social Capital Theory of Pierre Bourdieu and following David Livingstone and Peter Sawchuk, one might also speak of a so called "cultural capital bias" concerning informal based knowledge acquiring patterns (see Livingstone/Sawchuk 2003, 47). What the authors stress in the frame of informal knowledge acquirement by industrial workers can easily be transferred to a more broadly understood concept of 'Bildung': The concept of 'Bildung', which is traditionally reconstructed, empirically corresponds with a self-conception of 'Bildung' which reflects the hegemonies culture of the formally higher educated persons. In its own conception, it does not necessarily fit with the concept of a formally lower educated target group nor with its living and working conditions (see Livingstone/Sawchuk 2003, 253ff.).

As a consequence, this would mean to prefer an empirically open and socially contextualized concept of 'Bildung' (see Münchmeier/Otto/Rabe-Kleberg 2002). Regarding the methodological operationalization of informal 'Bildung' processes in virtual space, one should therefore examine the processes of reframing⁶, the socio-demographic framework and the conditions of accessibility of the interviewed youth as well as their prevailing online and off-line habits.

Based on the concept of an empirically 'open' definition of informal 'Bildung', and focussing on the different educational levels of the respondents, the CCIE examines current frame conditions of informal acquiring patterns and use differences of young people with different socio-cultural backgrounds. In particular, it deals with the question to which degree the 'real-life' (off-line) conditions will affect individual online use and how this in turn will affect the facets of 'Bildung' in 'real-life' face-to-face interactions. In the following, the present study reports the findings from the first period of research.

IV Research Design

Methodologically, the research is conducted from three distinct perspectives and reflects the aim to analyze the diversity of Internet use:

⁶ "Reframing" is selected as a term coined by structural education theory (see Marotzki 1990). It describes individual changes related to the individual self and to the world, i.e. changes of the framework within which a person acts and interprets him- or herself as well as their individual environment.

- 1) structured interviews and interviews while surfing ("surf interviews")
- 2) a quantitative questionnaire survey
- 3) a qualitative content-analysis of an online forum

Thereby, the present study approaches the field in both a qualitative and a quantitative way: 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 detailed level (IV.1). Secondly, for quantification and validation, a quantitative questionnaire survey was conducted concerning general conditions of using the Internet (IV.2). Finally, the question of participation was examined exemplarily based on a qualitative content-analysis of an online forum (see IV.3).

IV.1 Structured Interviews and interviews while surfing ("surf interviews")

During the first phase (summer 2003) of the present research approximately 50 structured interviews were carried out with youth aged between 11 and 23 years in publicly promoted youth centres (clubs, internet cafés,⁷ etc.) in the eastern and western parts of Germany. The majority of these interviewees possess a formally low educational level (mostly pupils of secondary general schools (*Hauptschule*), special schools (*Sonderschule*), and intermediate schools (*Realschule*) and only few upper secondary school students), frequently related with a migrant background. Most of them had rather short experiences in using the internet (many of them had been online for only a few weeks) and didn't have access to the Internet at home. Thus their online access is dependent on youth centres, friends or commercial internet cafes. The interview manual covered questions about the socio-demographic background (also with respect to the familiar background), about the way to access the internet and the hands-on experiences in the field of the internet, about patterns,

⁷ In the meantime, a large number of those institutions have been closed, since the financial support by the federal employment agencies has dropped. A primary goal of the promotion of internet cafés was to provide support regarding the young people's job applications. In the debate, one reason among others about the shutdown was that the young people were "only chatting" anyway. As far as we could see in our results, the accessed target groups in the publicly supported Internet cafés were especially young people without any qualification, or with a special- and/or secondary general school education, frequently with migrant background. According to our research concerning socially disadvantaged young people it emerged that chatting often appeared to be one gateway into Internet use. Here the question arises, whether with regard to encouraging disadvantaged young people to use online media, the shutdown of these facilities was really adequate.

preferences, motifs and habits of Internet use, and finally about quality expectations regarding existent online services as well as personal problems concerning the Internet.

In order to get a fuller and deeper picture of different ways to use the internet the CCIE is developing and testing a method called “surf interview” to generate multidimensional data as a combination of interview and participant observation (Kutscher, 2003; Otto et al., 2004). The participants are interviewed while surfing on the internet. This combination serves as an initial point for instigating verbalizations as well as getting further data about the actual use, favourite internet sites, navigational processes, search strategies and about communicative processes. Besides, the “surf interview” includes the performance of tasks concerning search for information, navigation on unacquainted sites and appropriation of unknown communication sites. The interviewees are accompanied by an interviewer, who is concurrently asking questions about their acting as well as about the rationale of the performed tasks. Furthermore the interviewer takes notes with a main focus on differences between planned or reported behaviour and observed behaviour. The interviews are recorded using a screen-recording software (audio and video data). 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 further analysis. Eszter Hargittai (2002) uses a similar method but in contrast to her focus the “surf interview” is oriented to informational as well as communicative uses. It aims at a deep exploration of use habits by applying a more open and less pre-structured way of interviewing and observation.

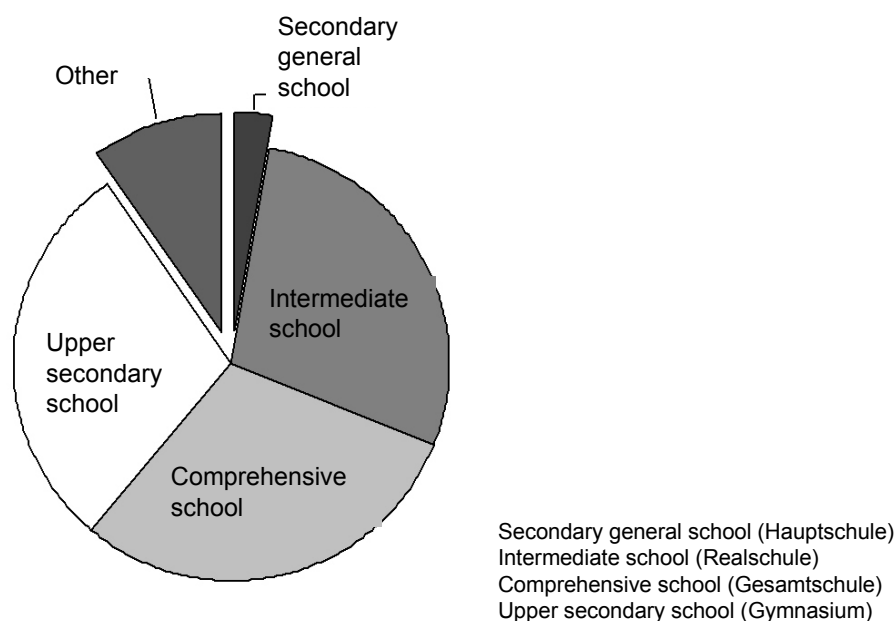
IV.2 Quantitative Questionnaire Survey

On the basis of the structured interviews and “surf interviews” a quantitative questionnaire survey was developed and 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 regarding digital divide and digital inequality which are primarily concerned with the question of technical premises of Internet access.

The following results of the quantitative questionnaire survey are based on a sample of 360 users, aged between 14 and 24 years with an average age of 17 years. The distribution of female (55 %) and male (45 %) juveniles is approximately equal. The predominant part of interviewees judge themselves as 'advanced' and/or 'pros' in dealing with the Internet. Only 20 percent see themselves as 'absolute beginners' and/or 'beginners'. A total of 51 percent are using the Internet several times or at least once per day. Thus, half of the interviewees belong to the group of frequent Internet users. With respect to the self-assessment of Internet abilities as well as to the frequency of the Internet use, the present sample ranges between regular and frequent users, respectively between advanced and professional ones. All in all sixty-eight percent of the interviewees attend a school, whereas 32 percent do not visit school any longer.

Figure1: Distribution of pupils according to school type



Here the distribution of pupils according to school type is especially remarkable (see figure 1): The emphasis is on the comprehensive school (*Gesamtschule* 30.1 %), the upper secondary school (*Gymnasium*, 29.1 %), and the intermediate school (*Realschule*, 19.1 %). Other school types – especially in the former eastern part of Germany like Brandenburg – add up to 9.7 percent. Above all, the secondary general school amounts to only 2.9 percent of the asked youths and is therefore definitely underrepresented.

IV.3 Feedback Analysis of the Online Forums

Professional online counselling forums were selected as a further exemplary area of research within the explorative investigation design outlined above. The research question here focuses on the correspondence between user interests on the one hand and the responsiveness of the respective service on the other. To this end, the feedback forum of an online-counselling service was analyzed, focussing on those contributions which were posted between September 7, 2002 and June 12, 2003. Within that special feedback-forum there were 42 ‘threads’⁸ with altogether 122 contributions. Following the concept of a network-analytic approach about computer-related communications, the content analysis might provide first hints regarding the characteristics of patterns and communications that are relevant to the examined field (see Stegbauer 2000). The objective of this study was to illuminate features of participation both on the level of service patterns and on the level of communication patterns within online service provisions.

One characteristic of Internet forums is the net-public documentation of asynchronously written contributions (‘postings’). The postings are chronologically attributed to each topically new opened thread.

Correspondingly, a qualitative, content-analytic forum analysis provides the possibility to examine the articulated topics, their authors, the intended addressees of the postings as well as those who actually respond; furthermore it allows to analyze

⁸ The term ‘thread’ designates a specific range of topics within a forum which is opened by one contribution and continued by a number of subsequent topic-related contributions. In this, a thread includes the first article and all subsequent answers, the so-called [Follow-ups](http://www.net-lexikon.de/Thread.html) (see The Encyclopaedia of the Internet: <http://www.net-lexikon.de/Thread.html>).

the related discussions and thereby implicitly the degree of inclusion⁹ of the posting persons within the online service (e.g. frequency and durability of participation).

V Results

V.1 Use-differences Among Young People

V.1.1 Information Acquisition and Knowledge

There is a wide range of strategies to acquire information and knowledge. In order to look for information, young people use search engines visit topical chats dealing with their particular hobbies (e.g. the exchange of automobile spares), they enter Internet addresses (URL) by guess, or intentionally use the MSN error page to look for further Internet pages along the offered list "Perhaps you meant ..." and other things alike.¹⁰ In the reflected use of such search strategies, various differences exist between young people on a formally higher to those on a formally lower educational one level. Correspondingly, self-made products like homepages exclusively exist in the reports of young people with a formally higher educational background.

V.1.2 Chatting as a Gateway

The starting point for Internet use by adolescents on a formally lower educational level predominantly lies in chatting. Its intent is primarily to have fun, entertainment, and to drive out boredom (see also Fritz 1995). This motivation is clearly different from that of persons with a formally higher educational background and leads to different attitudes regarding the perception of, and the dealing with usage problems related to possible resolution attempts, e.g. to stay with an unfamiliar Internet site despite initial difficulties.¹¹

⁹ The degree of the users' involvedness is of interest here, likewise in a network- and juvenile welfare-theoretical sense in that it illustrates the respective articulations of interest and of influence with special reference to the affiliation-, membership- and status-dimension inside of a network. In the present study involvedness, however, was primarily derived from the content of the related postings within the feedback forum, but not expanded to the activities within the complete offer, for example to the identification of nicknames. This will be accomplished in a next analytical step.

¹⁰ In the meantime, MSN (Microsoft Network) has changed the concept of the related Internet pages. Concerning an incorrect request it shows either "perhaps you meant..." or a selection of search results offered to the respective users.

¹¹ Frequently, young people with a migrant background use foreign chats (Russian, Tamil, etc.) accomplished by means of Latin typing in the respective foreign language. This is described as

V.1.3 Moderators of Knowledge and Support

The so-called ‘supporting’ and ‘knowledge moderators’ in the social environment of the young users – both online and offline – represent an influential factor of their social capital (see Bourdieu 1983 and 1986) which might offer further opportunities for Internet use. The search for advice and the need to establish and maintain social contact is realized both with strangers and friends. This finding corresponds to the principal capital theoretical assumption of Pierre Bourdieu, which would predict that peer structures between people on a formally higher educational level provide stronger mutual informational support regarding the problems of Internet use (e.g. the suggestion to attend a Internet course) than between persons with a formally lower educational background. Correspondingly, young people from the latter group exhibit the tendency to give up after first experiences of failure and to desist from the apparently incomprehensible structures instead of making further attempts or asking the relevant peers for support (about ‘social support network’ analyses, see Hargittai 2003). In this particular aspect of social support, supporting individuals are usually friends, relatives, and peers. So-called ‘weak ties’ (e.g. far acquaintances) seem to be relevant for an advanced development regarding ‘knowledge’ and ‘social status’, whereas so-called ‘strong ties’ (e.g. near friends, family) are thought to support the individual’s role within the known structures, and thereby hinder further progress. This may strengthen and aggravate the existing problems of social disadvantaged adolescents regarding their share with informal educational structures (cf. Granovetter 1983; Henly/Danziger 2003).

V.1.4 Internet as a Mobility Device

For young people, the Internet also serves as a mobility device in terms of offering opportunities to acquire information which would otherwise remain inaccessible. In addition, it provides access to unfamiliar opinions and/or social support, for example related to generational conflicts between parents and children, to which mediating others or supporting peers frequently serve as helpful agencies. Moreover, young

comparatively ‘easy’ despite the transfer of ‘translating’ into other typing-letters. On the other hand, however, the significance of orthography is levelled (see Danet/Herring 2003).

people report that they recognize the Internet and/or the acquirement of user competences as a personal way of vertical or horizontal social mobility (e.g. the value of knowledge of the Internet with respect to professional qualification). In the long run, this motivation shows consequences for the intensity of their problem-solving behaviour within the individual Internet use and may lead to different behaviour patterns than those described under V.1.2.

V.1.5 Responsibility and Control

Responsible peers or other role models within the virtual space frequently stimulate juveniles' advancement regarding their own responsibilities, e.g. as moderators or scouts in forums or chats, but also with respect to the acquisition and practice of power, concerning knowledge adoption and to successfully attaining social status. Many interviews refer to structures of administration and social control. This raises questions concerning who in each case obtains and/or exerts responsibility, and how responsibility is transferred. Moreover, young people often stress the fact that such patterns also regulate the respective communications and emphasize their high significance for social interaction within the Web.¹² Not-automated, i.e. real social responsiveness is described as highly relevant regarding appropriate answers. Some users may even purposefully test this (also see chapter V.3).

V.1.6 'Positive Metaphors'

An unexpectedly frequent statement in the interviews was the description of a 'positive metaphor' which seems highly significant in particular for the young people of a formally lower educational level. Self-representation as mode of online use by means of written expression styles and visual self-descriptions plays a crucial role. Correct orthography in chats or forums, for example, is estimated as a status characteristic. Since this seems to be important in the sense of a social distinction and intended social ascent especially for pupils of special and secondary general schools, it is irrelevant to upper secondary school students. It is striking that many of the interviewed describe themselves along ideal ascriptions in a chat, such as "blond,

¹² In this context, the related statements – at least in part – demonstrate the ideals of a close and clearly limited community which pays particular attention to norm affirmation and other conforming habits. This raises further questions, e.g. who represents such standards within the community individually.

blue eyes, upper secondary school student" etc. The assumption hereunto is that a particular social hegemonic culture seems to be relevant, especially when considering that in most cases these reports are designed by young people with a migrant background. Thus, for this group (of non-members of the 'societal majority') it seems especially important to describe themselves as members along the corresponding (more 'classically' imagined than really existing) visual-physical attributes of the immigration country.¹³

V.1.7 Styles of Identity Formation and Identity Presentation

The interviews exhibit a wide range of presenting individual identity-styles. This includes some forms of identity-testing, such as 'gender-switching' in boys and girls alike. An interesting peculiarity is the 'undercover chat' with close friends, in which the adolescents remain unidentified to each other. This serves mainly as test of a close relationship. In other reports, the subjects (mainly boys) claim to describe themselves in the way they actual are. Finally, young persons frequently point out how they are testing communication alternatives, e.g. in that they learn "to talk to (strange) people", as this is estimated rather difficult in face-to-face interactions.¹⁴

V.1.8 Testing Behavioural Alternatives Communicatively

There are different opinions concerning the question to what extent chatting, understood as an opportunity to test behavioural alternatives communicatively and to establish contact to others, might influence the off-line life of the respondents. One of the interviewees answered in detail that this did not show any consequences for his off-line life, since one could not do "anything wrong". Within online use, sanctions would not come into force and consequently there was "no learning", either. In contrast, other interviewees state that online communications certainly had consequences for their off-line life in that they might learn to address people with more ease and "more skill".

¹³ The question arises to which extent the mentioned self-descriptions really reflect the desire of affiliation or whether they only represent playful toying with demonstrated oppositions.

¹⁴ This contradicts the thesis of Heintz and Mueller (2000), according to which social networks in the off-line life of the respondents will expand relative to those established in online activities (see Heintz/Mueller 2000).

V.1.9 Differences in the Online Use

In the interview data different criteria were found which affect the online use of adolescents:

a) Degree of competence and experience in technical use

On the basis of the interview data it is possible to infer the following facts: Technical experience will not necessarily lead to reflexive online use and/or advanced educational progress. It is significant that material availability of Personal Computer and Internet connection as well as the technical operating know-how only partially promote respective use competences (see Baacke 1980). More influential however are facets such as the young persons' reflection abilities, their communicative competences and social resources which outline the decisive context for adolescents' Internet use.¹⁵

b) Commitment experience

The degree and style of young people's commitment in off-line structures (e.g. youth associations) seem to lead to a more differentiated behaviour concerning their online use habits (see Picot/Willert 2002). With reference to the expression of opinions about particular Internet sites and regarding their participation in the conceptualization of Internet appearances, the subjects' off-line experiences seem to influence their online behaviour in part (see chapter V.3 for more details).

c) Peer structures and social networks

Peer structures (regarding knowledge and/or competences of close friends, relatives, families etc.) are crucial concerning the individual development of online using styles, the access of new online areas as well as social support for problems of Internet use. Eszter Hargittai (2003), for instance, speaks of 'social support networks' as the availability of others, to whom one can turn in order to ask for social support. The size of such networks is also important to enhance online use skills (see Hargittai 2003, 10).

¹⁵ In this context, one might examine the development of user's competences related to game-preferences and game-using habits, in as far as different playing-profiles may affect user styles (for example: the team-oriented, the destruction-oriented, or the tactics-oriented game, the respective use frequency, and other contexts of individual online and off-line habits alike).

d) *Formal educational level*

As indicated by the structured and surf interviews, adolescents on a formally low educational level tend to employ stereotyped using strategies.¹⁶ As a rule, the online services visited are mainly chats. Usually, the respondents use the chat without registration and to a large extent possess no own email account either. Related to this, one might speak of an 'instant use' habit. Frequent examples are adolescents who have tested no more than a single chat-room and have no further knowledge about other Internet pages in spite of extended online experience of 1-2 years (for the topic of routines and habits, see van Eimeren 2003). The attempt to open a new chat with apparently clear organisational structures as a task in the course of the surf-interviews exhibited the complete disorientation of some of the respondents on a formally low educational level.

This places new questions concerning usability research. Obviously, the usual conceptions of clarity and structure of Internet site compositions and of navigation must be questioned against the background of educational differentiation (cf. also Niesyto 2000, 2002).

Concerning the respondents on a formally higher educational level, there are clear indications to a broader variability of using styles (information-seeking activities, downloads, self-made products, rarely chats...). Furthermore, one also encounters more autonomous information acquirement habits regarding new and unfamiliar online domains, a more reflected Internet use as well as a higher participation level concerning feedback and opinion expression. This, too, implies consequences regarding the development of the respected online offering patterns: If only a particular group of young people expresses its opinions and/or is itself actively involved in the Web, one must be aware of a social slant in the consideration of the individual needs and requirements of different user groups.¹⁷

¹⁶ For example, using stereotypes include ways of use not deviating from habituated and learned surfing-styles with respect to a particular online service, irrespective of pedantic detours which these may imply. Even people with very long using experiences are unwilling to change their habits. This issue serves as a starting point for the CCIE-Research: a) Which benefit do users gain from such habitualized online strategies (i.e. What is the specific result?); and b): Which individual value (*'Eigen-Sinn'*) shows up within such using habits (i.e. in that the idea of a particular using style as the 'correct one' does not necessarily apply to all users)? Thus, a more detailed investigation of this matter could possibly uncover new usage patterns which – also possibly as a form of social opposition – are meaningful to the investigated social milieu.

¹⁷ The big challenge for the development of online environments for young people of different social origin lies in questioning what these findings in their consequence really mean. On the one hand, a

The extreme poles that the interview data balance in between are a relatively pronounced reflection of experiences, strategies and user problems expressed by young people of a formally higher educational level on the one hand and an unconcerned or less conscious recognition of problems together with the absence of irritations or crisis experiences which eventually might hinder further progressions in the online use of young people on a formally lower educational level on the other.¹⁸ The question arises if the latter audience is generally capable of perceiving themselves as 'lost in hyperspace'.

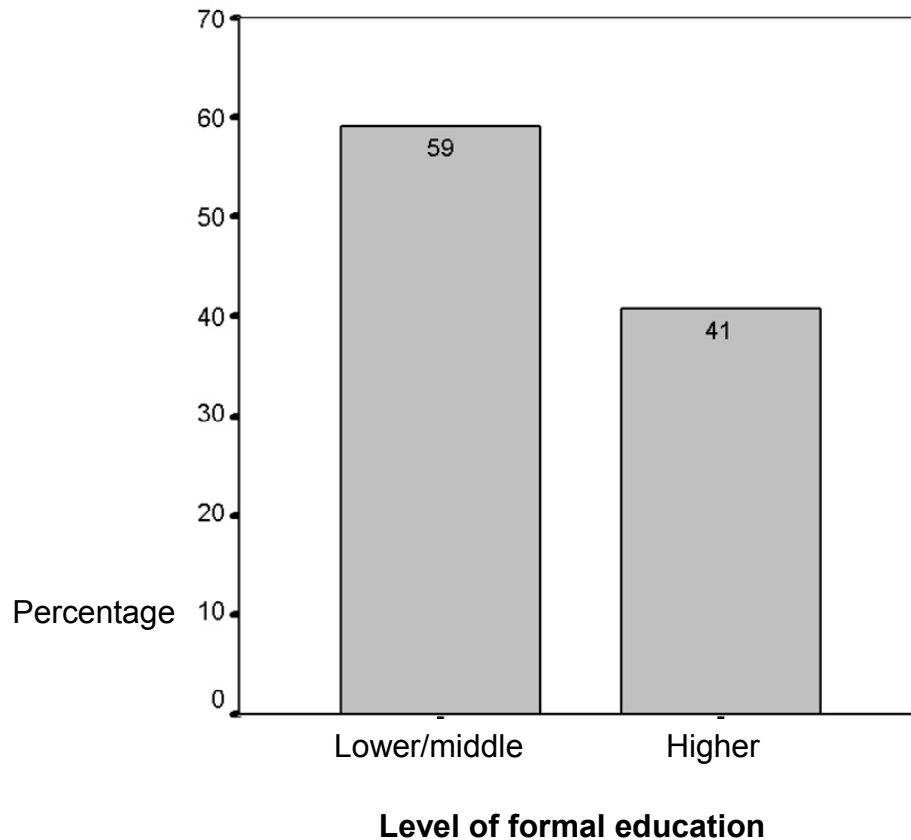
V.2 Significance of Formal Educational Background For the Online Use

In order to analyse the use and acquiring strategies of the respondents in the course of the IFA (see chap. IV.2) in relation to their educational background, the variable 'formal education' was formed from the variables 'attended school type' and 'degree of qualification'. This variable was classified into the categories: '*low/middle formal educational level*' (special school, secondary general school, intermediate school, comprehensive school, and similar graduations) and '*higher formal educational level*' (upper secondary school, specialized technical school, and similar graduations). The percentage distribution of these two categories reveals a majority of young people on a formally low/middle educational level.

wide range of offers for different target groups with different preferences seems advisable here; on the other hand, however, this would then create the problem of reproduced social stratification by means of distinct online offers. An educationally and socially reflected Internet service should thus provide an attempt of connecting a differentiated, target group-specific solution with the implementation of such incentives as to overcome such facets of social stratification.

¹⁸ With respect to 'reflection' the methodical question arises, how verbalisation styles actually influence reflecting perceptions.

Figure 2: Distribution of formal educational levels



Due to the specific composition of this sample¹⁹ regarding individual school types (predominantly intermediate school, comprehensive school and upper secondary school), the present interpretation mainly refers to statements of persons with a middle and/or higher formal educational background.

¹⁹ The IFA-sample is of particular interest with respect to a contrasting option: While in the explorative structured interviews the beginners and irregular Internet users on a lower educational level were questioned, the IFA-sample basically consists of progressing and regular Internet users on a formally middle and higher educational background. More light will presumably be shed on the significance of the variable 'formal education' with a differentiation of the education variables in the second questionnaire survey, in which young people with a formally low educational background will be interviewed in autumn/winter 2003.

V.2.1 Particularities of the 'IFA'-Sample²⁰

In a first analysis of the IFA-sample, the correlation between the variables 'age' and 'sex', furthermore between 'sex' and 'formal education', and finally between 'age' and 'formal education' were intensively examined. While the relations between 'age' and 'sex', as well as between 'sex' and 'formal education' exhibit no systematic correlations, a close connection was found between 'age' and 'formal education'. While in the lower age groups (until 15 years, 16 and 17 years) the proportion of persons on a formally low/middle educational level is particularly high, the group of persons on a formally high educational level outweighs in the higher age groups (18 to 21 years, 22 to 27 years). This significant correlation of education and age in the present sample shows *methodological effects* on the data interpretation. Apart from a bi-variant evaluation, it also requires a multivariate procedure by regression analysis. In the following, relevant correlations will be examined particularly with respect to the question to what extent the variables 'age' and 'formal education' affect the total relation.

V.2.2 First Results and Trends²¹

All data were examined by means of multivariate regression analysis concerning the influence of the variables 'formal education' and 'age'.

In the following, four questions related to 'formal education' are being discussed exemplary:

- a) Who looks for which information?
- b) How does Internet use change over time?
- c) Which criteria are relied on to judge on the quality of Internet sites?
- d) Which medium is thought to be absolutely indispensable? (Primary medium: "*Leitmedium*")

²⁰ Concerning the composition of the basic population, the following assumption forms the starting point of the present investigation: If in this population differences are recognizable with respect to the using and acquiring styles of the interviewed adolescents with a *middle* and *higher* formal educational level, the determined differences will become clearer still as the analysis is extended to an explicitly *low* formal educational level.

²¹ The following analysis refers to the sample of the first questionnaire survey. In a second survey the findings and tendencies of the first will be verified related to an expanded database (for more information on the general results see www.kib-bielefeld.de).

a) *Who looks for which information?*

A particularly strong correlation²² between the distinct information domains²³ and 'formal education' exists with respect to 'information about my favourite TV-series', 'information about my favourite band and/or singer', and 'information about politics and news'.

Information-seeking regarding	correlates with ...					
	...formal education		...age		...sex	
...favourite TV-series	,388	low/mean	,266	Young		
...favourite band and/or singer	,363	low/mean				
...news	-,225	high			,257	Male
...politics	-,235	high	-,314	Old		

Table 1: Information-seeking referred correlations

These correlations were examined by means of regression analysis regarding possible effects of the variables 'formal education' and 'age'. Within the dimensions '*favourite TV series*', '*favourite band and/or singer*' and '*news*', the related effects could be attributed to the variable 'formal education' to a large extent. Within the dimension '*information about politics*', the effects of 'age' affects more strongly than 'formal education'.

b) *How does Internet use change over time?*

Sixty percent of the respondents answered that form and style of their Internet use has changed over time, while 40 percent answered that their Internet use has remained rather stable.

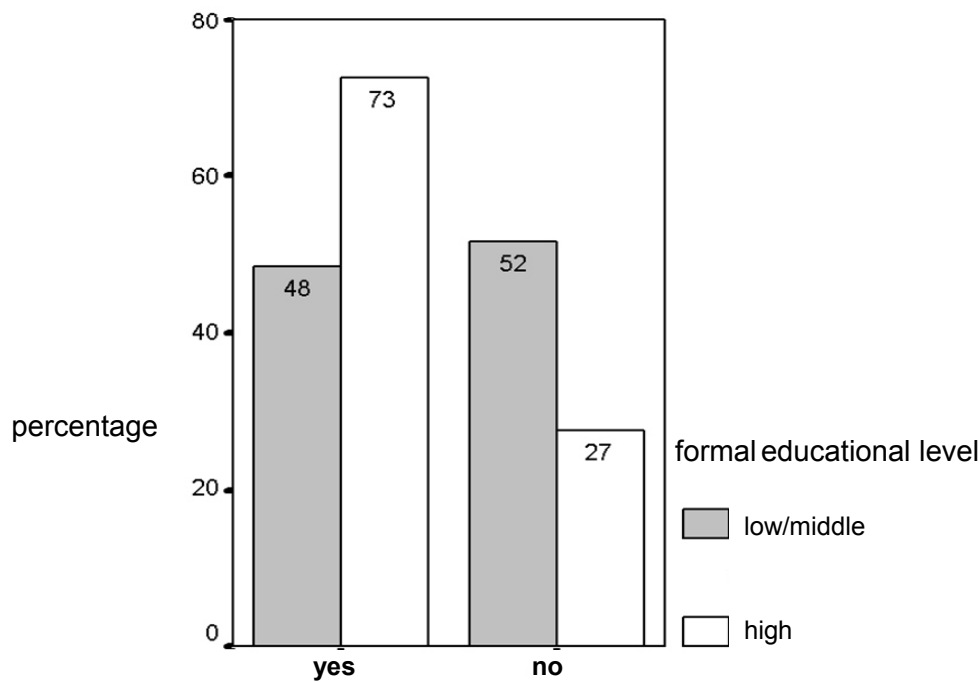
If one differentiates this result along the variable 'formal education', the following picture emerges: In the case of changing Internet use, people with a formally higher educational background (73 %) prevail compared to people with a formally low/middle educational background (48 %). This result is particularly clear regarding respondents who *deny* a change in their Internet use: This group is particularly strongly represented by persons with a formally low/middle educational

²² Pearson's correlation.

²³ The question was: "In the Internet, which topics do you search information about?"

background (53 %) as opposed to the group with a formally higher educational background (27 %).

Figure 3: Changes of the Internet use related to formal educational levels



Changes of Internet use in the course of time

Along the variable 'formal education', clear differences showed up regarding the self-assessment in reference of a changing Internet use (Pearson's correlation $r = -,245^{24}$). With respect to the question in what ways Internet use had changed, the educational variable is also highly effective. Among the respondents

- persons on a formally high educational level spend more time in the Web compared to the beginning of their Internet use ($r = -,214$);
- persons on a formally low/middle educational level use the Internet mainly "to meet other people" ($r = -,245$);

²⁴ Pearson's correlation

- persons on a formally high educational level use the Internet mainly for reasons of information ($r = -.207$).

For the reasons mentioned above, a regression analysis was accomplished referring to the following items which will confirm the existent correlations:

- Younger respondents with a formally higher educational background spend more time on the Internet compared to the beginning of their Internet use (β -coefficient²⁵ concerning the variable 'education' $\beta = -.140$; concerning the variable 'age' $\beta = -.196$);
- Younger respondents with a formally lower/mean educational background mainly use the Internet in order to meet other people (β -coefficient concerning the variable 'education' $\beta = -.184$; concerning the variable 'age' $\beta = -.161$);
- Older respondents – and contrary to correlation analysis – with a formally low/mean educational background use the Internet to inform themselves (β -coefficient concerning the variable 'education' $\beta = -.132$; concerning the variable 'age' $\beta = -.200$).

As this regression analysis demonstrates, the influence of the variable 'formal education' related to the Internet use in order to "*meet other people*" is stronger than 'age', but with advanced Internet practise the variable 'age' becomes more influential.

A particularly strong correlation exists regarding the item "*Since I have started using the Internet ... I find more information on topics of my interest*" with respect to 'formal education' (Pearson correlation: $r = -.227$). The estimated changes related to information-finding to the topics of interest correlate with a formally high educational background.²⁶

c) Which quality criteria are regarded essential on Internet pages?

The question of quality in the interviews is closely related to the interviewees' favourite Internet sites. The reason for this are experiences from the previous qualitative interviews, in which it became clear that questions about general quality criteria were ineffective and are usually being answered with "*that depends!*".

²⁵ Standardized beta coefficient.

²⁶ Regression analysis shows that this correlation is to be attributed to the predominant influence of the variable 'formal education' (β -coefficient: $-.244$) whereas the variable 'age' ($-.045$) is only little significant.

Therefore, the questions here are explicitly directed to the positive features of the respondents' favourite Internet pages. Starting with the question: *"Think about the Internet sites which you like best: Which aspects are particularly important to you?"*. First the correlations of quality assessments and 'formal education' were examined and then related to the variable 'sex'. The following list entails eight of the altogether 16 dimensions that indicate interrelations to 'formal education' and/or 'sex'. A strong correlation with "formal education" (Pearson's correlation) appears particularly with respect to the following characteristics of Internet pages that allow

- *"to place own photos and texts"* ($r = -,282$: low)
- *"to send text messages free of charge"* ($r = -,333$: low)
- *"easy to operate"* ($r = -,204$: low)
- *"to adjust the Internet pages according to one's own interests"* ($r = -,197$: low)
- *"an exchange of opinions"* ($r = -,323$: low)
- *"to participate in opinion polls "* ($r = -,332$: low)
- *"to subscribe to a newsletter"* ($r = -,358$: low)

The interrelation of the variables 'formal education' and quality is particularly clear in contrast to the variable 'sex': female respondents predominantly estimate the individual aspects of quality as 'very important' and/or 'important'. In contrast, male respondents rather consider the individual aspects of quality 'unimportant' or 'totally unimportant'. The following estimations of qualitatively 'good Internet sites' correlate strongly with 'sex' (Pearson correlation):

- *"attractive design"* ($r = -,256$: female)
- *"to place own photos and texts"* ($r = -,254$: female)
- *"to send text messages free of charge"* ($r = -,250$: female)
- *"easy to operate"* ($r = -,236$: female)
- *"to adjust the Internet pages according to one's own interests "* ($r = -,220$: female)

In a second step, the above-mentioned quality assessments were examined by means of regression analysis according to the variables 'formal education' and 'age'. The regression analysis makes clear that the particular quality dimension

- *"to place own photos and texts"* is similarly an effect of 'formal education' ($\beta = -,249$; low/mean) and 'sex' ($\beta = -,216$: female);

- *"to send text messages free of charge"* is an effect of 'sex' ($\beta = -,302$: female) and 'formal education' ($\beta = -,204$: low/mean);
- *"easy to operate"* is an effect of the variable 'sex' ($\beta = -,209$: female). A simple operability is important to female, but unimportant for male youth;
- *"exchange of opinions"* is an effect of the variable 'formal education' ($\beta = -,308$: high);
- *"to participate in opinion polls"* is an effect of 'formal education' ($\beta = -,310$: low/mean) and less of 'sex' ($\beta = -,145$: female);
- *"to subscribe to a newsletter"* is an effect mainly of 'formal education' ($\beta = -,340$: low/mean) and less of the variable 'sex' ($\beta = -,119$: female).

d) Primary medium ("Leitmedium")

Individual media use preference was examined by posing the question: *"Which of these media is absolutely indispensable to you? (choose only one!)"*.²⁷ With exception of the variable 'primary medium mobile phone' no interrelations between 'primary medium' and 'formal education' were found. The correlation with "mobile phone" is particularly strong ($r = -,334$). Further interesting indications concerning the 'primary medium mobile phone' result from the correlation between the variables 'sex' ($r = -,286$) and 'age' ($r = -,183$).

With regard to the variable 'primary medium mobile phone', there is also a strong correlation (Pearson's correlation) between the variables 'age' (young), 'sex' (female) and 'formal education' (low/mean). The regression analysis shows a decisive effect of the variable 'formal education' (β -coefficient: $-,309$) in contrast to 'age' (β -coefficient: $-,066$). Thus, a formal educational level plays a crucial role in the question of the interviewed adolescents' preferred primary media. The mobile phone is preferred especially by young people of a formally lower educational level. The significance of the mobile phone thus still remains an important aspect both for

²⁷ It seems noteworthy that there is no one predominant medium sticking out of the preference context. Rather, the findings make clear that the respondents move within a media group, in which the use of one particular medium will not exclude the use of others. Correspondingly, it is important with respect to the interpretations not to fade out the general media context. Nevertheless, there are individual preferences for the use of particular media ('primary medium'). In a second step the relationship (Pearson correlation) between individual media ('guidance media') and 'formal education' was analyzed in more detail.

further investigations as well as for the development of target group oriented Internet offers.

V.3 Implications of Use Differences for Support-Seeking and Participation in Virtual Space

Different studies support the assumption that theoretically possible crossing of social borders does not regularly take place within online communications. Rather there seem to be indications that separate, distinctive, and socially homogeneous structured spaces of interactive Internet use are constituted.²⁸ Norris (2003), for instance, points out that participation in most online groups will maximally cross generational, but neither ethnical, socio-economic nor class-related borders. Schönberger (2000) points out the particular conditions that accompany participation within different online domains. He comes to the end that there are processes of closure and distinction, on the *level of content* as much as *in the related communications*. Correspondingly, one has to consider that even in internet services based on participation, the mere convergence of interests is not sufficient to be an adequate prerequisite of accessibility. Even though issues examined in certain forums may match the own interest of a certain user (e.g. the search for social support concerning specific issue), the sheer convergence of interests referring to the contents of the service alone is insufficient. There is evidence that further conditions refer to social, economic and cultural convergences.

These first indications may confirm the above stated findings about styles of use with reference to the different formal educational backgrounds of the interviewed youth. Beyond that, they also might help to concretize further areas of the young people's Internet use. As we have shown with assistance of the qualitative interviews and the quantitative questionnaire survey regarding the variations in Internet use, there are substantial divergences concerning the net-based patterns of social support with respect to the preferred participation styles as based on the formal educational levels of the individual respondents.

²⁸ The fact that typical clichés from contexts outside the Web are reproduced and reinforced here related to pseudo anonymity and geographical distance is demonstrated especially in gender research studies (see for this Bath 2002; Herring 1997, 2000; Funken 2002, 2000; Schönberger 1999)

Considering that these findings mainly refer to the informal fields of support-seeking and participation activities in the Internet (e.g. online self-help groups or chats), and regarding the obviously unequal accessibility to according devices, it may be necessary to take into account professional and, related to this, more formalized services of social support and participation for young people within the Web. In the following, we will examine which contributions net-based social work and/or according services and communication structures may be able to provide within a professional arrangements of net-based 'social support'. Next to the informal area of support-seeking and participation within chats, this question also appears relevant for the results attained so far by past empirical studies and theoretical considerations regarding self-help groups in the Internet, given that this problem has only rarely been taken into account (see exemplary Walther/Boyd 2002, Galegher et. al 1998).

In order to contextualise the existing studies with respect to support-seeking and participation, and to concretize the preceding results from the interviews and questionnaire surveys about the variability of the juvenile using styles, as well as the results of the forum analyses regarding professional online-counselling services and their implications of social inequality in virtual space concerning access to net-based social support, it is necessary to conceptualize the field of investigation more precisely in a theoretical sense²⁹.

V.3.1 Social Support

Social support³⁰ can be grasped as a multidimensional concept which takes into account

- 1) the frame conditions under which social support takes place;
- 2) the exchange of support '*per se*' including its content and/or reference points (e.g. emotional, informational, social network and esteem-support); and
- 3) the subjective perception of availability and satisfaction with the support;

²⁹ The following theoretical explications and empirical findings are part of the dissertation project of Alexandra Klein: 'Social Capital Online': Counselling, Self-help and Engagement in the Internet'

³⁰ "Social support communication is traditionally considered to be the exchange of verbal and nonverbal messages conveying emotion, information or referral, to help reduce someone's uncertainty or stress, and whether directly or indirectly, communicate to an individual that she or he is valued and cared for by others" (Walther and Boyd, 2002)

(see Henly/Danziger 2003; in addition Barrera 1986; House et al. 1988; Sarason et al. 1990; Turner and Turner 1999; Vaux 1988).

Further research regarding the attractiveness of net-based social support referring to online self-help groups (OSHG, see, for example, Braithwaite et al. 1999; Walther and Boyd 2002; Tichon 2003) suggest that it would be promising to categorize social support heuristically according to a modified list of Cutrona and Suhr (1992):

<i>'Informational support'</i>	designates different styles of advising, the transmission of facts and different aspects of feedback.
<i>'Social network support'</i>	designates references or transmission to a person or group which is able and willing to provide support, consultation or assistance for the solution of particular social or personal problems and questions.
<i>'Emotional support'</i>	designates the expression of concern, empathy and sympathy.
<i>'Esteem support'</i>	designates the expression of acknowledgment (attention and estimation) and appreciation.

The categories above are heuristic and ideal-typed, and are usually found to overlap in practice. Nevertheless, 'emotional support' and 'esteem support' refer mainly to 'strong ties', while 'informational support' and 'social network support' are grounded chiefly in 'weak ties' of a given social relationship (see Granovetter 1973).

Beyond that, as already suggested, one might label further support areas in the Web. On the one hand, they refer to a more informal array which is implemented commercially as well as non-commercially and is not directed at the explicit objective of social support, but rather at general communication. Chats, such as 'chat4free' (www.chat4free.de), which are preferred by the interviewed adolescents might be subsumed under this category. On the other hand, there is also a rather strongly formalized sphere, of which the objective is the professional online-counselling of young users of the Web. Part of this category is the examined online-counselling service. The numerous self-help groups in the Internet can be subsumed in a different category which allows both lay consultation and general communication.

Today, a large number of studies on these online self-help groups are available (e.g. Tichon 2003; Walther/Boyd 2002; Braithwaite 1999; Döring 1997; Jansen 1998; McKenna 1998; Heller 2002). Containing particular implications about professional social support seen against the background of social inequality, these findings can be summarized briefly in the following:

Online self-help groups (OSHG) are based on shared interests and/or experiences of (active) users. Due to their constitutive and self-organized structure, they constitute a special array of opportunities regarding information exchange and emotional support with reference to the relevant topics of the particular group. Adjusting to the anonymity of the Web, the respondents emphasise the importance of mutual exchange and reciprocal emotional support combined with a strong tendency to self-revelation and compensation of 'real-life' discriminations.

Although to a large extent there are no substantial findings about the socio-demographic characteristics of users within this particular organizational pattern of social support (concerning young users especially, but similarly, there is hardly any general information on the educational qualification of adult users), and although these findings are frequently contradictory or incomplete, the studies in general exhibit limitations of accessibility related to stratification and social inequality. Compared to off-line self-help groups the difference here is only a gradual one. For a long time, findings from recent participation research point out the middle-class orientation of self-organized self-help groups (see Brömmer/Strasser 2001; Sturzenhecker 1998; Weihnacht 2001). Moreover, as Picot and Willert (2002) could show, social stratification is reproduced in virtual space. Their qualitative analysis about self-organized engagement styles of adolescents in the Web exhibited similar findings regarding the significance of educational graduation. Thus, it might be assumed that OSHG suffer from limitations in their range and informational flow: On the one hand in a concentration on 'emotional support' as opposed to 'informational support', and on the other hand in substantial access barriers, group norms and the production of non-legitimate request for support.³¹

³¹ See, for more details, Klein (2004): Social Support Quality in Net-based Information and Communication: From 'Digital Divide' to 'Voice Divide'. Lecture presented to the Summer Academy "Social Work and Society", St. Petersburg, Russia. Online: Social Work and Society, Vol. 2, Issue 1, www.socwork.de/klein2004.pdf

Against this background, professional counselling in the Internet is of substantial interest here as it and reflects the limited range of self-organized and informal net-based arrangements of social support and includes associated insights into the organization of its services.³²

Just as there is a lack of data about socio-demographic framework conditions of net-based informal social support, nationally and internationally only few relevant research publications are available on users' assessments of professional Internet counselling provision. Nevertheless, the few studies on hand permit the conclusion that secondary general school pupils as well as special school pupils are strongly underrepresented with less than 10 percent (see Becker 2003; Berg/Schopp 2002; Hinsch/Schneider 2002; Wolz 1999).

Taking into account the past considerations about the socio-demographic background of Internet users, the barriers of accessibility and degrees of participation³³ as well as the focus on emotional support, it appears appropriate to qualify the concept of a 'digital divide' (or more appropriate: 'digital inequality'), understood as a structural feature of net-based social support, by the term 'voice divide' (see Klein 2004).

V.3.2 Voice Divide

The concept of 'voice divide' follows the reflections of Albert O. Hirschman (1972) about *'Exit, Voice and Loyalty'*. It does not only designate pure participation in the sense of 'being here', but likewise – and more essentially – the conditions of opportunities for an active articulation and agency of interest of the concerned users within the offered social service provision. Thereby, this concept also refers to the 'democratic quality' of service provision.³⁴

The central question is which components under the premise of a 'low threshold value' social service provision in the Internet which is explicitly addressee-oriented, seem to be necessary in order (1) to qualify service provision with regard to

³² Such reflected services may for instance rely on inequality-sensitive data collections of the user population, of use preferences, and the like.

³³ Compare the relationship of 'active poster' to 'lurkers' as brought into discussion particularly by Stegbauer and Rausch (2001), Preece et al. (2004).

³⁴ The concept of the 'voice divide' has been developed and examined by Klein in the course of her doctoral thesis project (see also Klein 2004).

content and (2) to create such professional arrangements as to promote the respective service provisions. Thus, the concern here is to concretize the expectations of the young users regarding net-based social service provision against the background of social inequality in virtual space.

Oser (2000) defines 'full participation' of young people with respect to youth welfare services as follows: "Despite of co-operative decision-making and/or voting about form and content, [full participation] also stresses the possibility and the legitimate right to take initiative as well as to introduce one's own knowledge, opinions, ideas and conceptions" (*our translation*). Against the background of an obviously unequal access to net-based 'social support' it seems wise to take into account the usage of 'objective articulation arrays' (Herrmann 1995, *our translation*) within a service provision as well as the 'subjective articulation abilities' and/or the conditions of interest articulation (see Brömme/Strasser 2001). That would mean to examine a phenomenon which could be described as 'voice divide' within the Web.

From the empirical analysis of articulation spheres within a professional and forum-based online counselling service, the following conclusions can be drawn:

- 1) Structural embodied articulation arrays are made use of;
- 2) Within these articulation arrays the basic premises of service and counselling provision will be negotiated.

The topics to be negotiated between users and those responsible for the counselling offer taking place inside these articulation arrays refer to the following dimensions:

- a) 'content amplification of the service';
- b) 'Counselling quality';
- c) 'Technical suggestions and/or questions'.

Thus, the articulated suggestions and interest of the individual users refer to two dimensions of quality demands: On the one hand with regard to the service structures, on the other hand referring to the communication structures within the professional online counselling offer.

These first results provide an outline of the core elements of demand related to participation within a professional social service offer, particularly to the fundamental anchorage of articulation opportunities and the individual offer concerning the discussions with users. Central to the concept of 'voice divide' as a

resuming qualification of digital inequality (see chap. III) is the question which variables affect the articulation of the affected users in order to identify the socially distinct requirements of different users within the Web.

Discussions about the conceptualization of such a service within the feedback forum exhibited the following aspects to be relevant:

a) Perception of influence capabilities

The question about the degree to which users recognize an Internet service as influenceable, depends of two criteria: On the one hand, perceived influence capability is due to the *structural condition of a particular arrangement*. More precisely, the opportunity for interest articulation and influence-taking regarding the respective offer must be given. On the other hand, such an opportunity needs to be recognized by the users in order to be put into effect. Especially with regard to the *subjective perception of potential influenceability*, there are numerous hints – both within the qualitative interviews as well as in the off-line participation research – which indicate that potentially available participation opportunities frequently remain unrecognized. The conscious recognition of influence capabilities, therefore, constitutes a minimum condition for participation. Such recognition, however, is socially formed to a considerable extent and thus may contribute to social stratification (see Weihnacht 2001; Kuhring 2001; Sturzenhecker 1998).

b) Appreciation of the service

The fact that the articulation of interests of the young people is directly linked to the appreciation of the service³⁵ refers not only to the experience of influence capabilities but also to the estimation of its content. Likewise it shows the existence of a relationship between the articulation of interests on the one hand and the subjectively perceived affiliation and/or use experiences on the other hand. Thus, it is not only the users' acceptance of professional framework conditions regarding the counselling service which affects the extent of actual participation. Rather, the using conditions of this articulation domain prompting satisfaction and identification are implicit conditions which are relevant for the active articulation of individual interests. The close relationship between appreciation and actual articulations of interests seems to

³⁵ Adolescents often express this clearly in their Internet forum contributions.

support this hypothesis. Further substantiation is offered by the fact that there are considerable topical convergences between the articulated topic preferences of the individual users and the already existing topics within the services. Those users who actively post messages therefore orient themselves towards the available core topics of the online service. Thus their topical preferences are covered by the available offer to a large extent. Thus, demands for extension are not necessarily aimed at introducing completely new topics and/or a professional re-orientation. This also means, however, that it is apparently important for the individual users to find topics which they deem relevant in order to feel appropriately represented within the service. On the other hand, one might infer that the classification of the own interests and topic preferences within the individual arrangement presupposes knowledge about its contents and structures. In that, the degree of the users' experience seems to be relevant for active participation and articulation of interests.

c) Generalized and individual need as references of users' reasoning

In the same way that the relationship of the topical convergences and the available service may influence participation patterns, one also finds convergences on the level of users' reasoning regarding their individual requirements. Such convergences appear on the level of a generalized need. The posting adolescents do not merely ground their interests in their individual requirements, but they also refer, at least in part, to the generalized need of an anticipated group to which they belong. Thus, one might speak of interest articulation based on anticipated interest convergences as a moderating influence variable for participation. Against this background of accepted hegemonies structures, therefore, one might reflect about the potential invisibility of marginalized interests in virtual space.

These findings closely correspond with results from (off-line) participation research, in which – as Picot (2000) has been able to show – the "realization of own interests" and the "accomplishment of own problems" (*our translation*) provide substantial influence factors on participation. This applies both for the motivation to participate and the 'drop out' phenomenon.

Regarding the *response behaviour of the professionals* within the forums, the responsiveness of the related arrangement is of particular importance. An examination of the forum contributions reveals five central dimensions:

- 1) The suggestions of the adolescent users are indeed replied to immediately respecting their need for quick response. This was obvious from the observable time which professionals needed for their reactions. The formal responsiveness within the forum-based system shows that the discussions between professionals and users are to a large extent lead publicly and, in that, structurally embodied, transparent and comprehensible on an inter-subjective level.
- 2) Professionals articulate explicit acknowledgment and appreciation related to users' suggestions.
- 3) Professionals express openness towards, and the desirability of, users' participation.
- 4) Professionals provide an environment of encouraging transparency. By clarification and information about the places within the online offer in which the young people might exert influence, they will be stimulated and encouraged to engage in participation.
- 5) Professionals reveal feasible alternatives and thereby adopt a so-called "pilot and/or broker function" (Burt 1998).

Last but not least, the principle value of such a broad responsiveness becomes manifest in the fact that – despite the vivid demands and articulations – justified refusals dominate on side of the professionals. Thus, next to topical participation regarding the available counselling services by the posting adolescents, the responsiveness of the professionals is just as crucial here.

V.3.3 The Attraction of Chatting

The example of the respondents' suggestions regarding a 'structural extension' of the related service can be used to illustrate the interactive negotiation of basic counselling premises. In the feedback forums, it is frequently suggested to expand the asynchronous forum service by means of a chat-room. As already shown several times, the chat – especially to young people on a low formal educational level – offers a substantial 'service of access' into, as well as a basic articulation domain within the Web which is furthermore used for individual support-seeking activities. Interestingly, this attractiveness is just as present within the frame of a more formalized professional online counselling service, as young people articulate according interests. Referring to available investigations regarding the attractiveness

of synchronous chat communications (for more details, see Beißwenger 2001), one might derive from the interest to chat a medial representation of quality demands which is similarly valid regarding the accessibility to net-based social support.

The adolescents' quality demands focus on two basic dimensions:

- a) their claims to immediacy and contact;
- b) their self-conception as advice-seeking and advice-giving users.

In addition to being typical for chat communications in general, the dimension of immediacy also appears to apply to the related expectations for social support in the Web. With such articulated expectations of advice *in situ* (Wolz, 1999), not only the general, more informal chat undergoes a qualitative classification with respect to its attraction for the adolescent users; rather, there exist further important indications referring to the forum-based and rather strongly formalized consultation provision: Above all, the quick responsiveness which allows to satisfy the interest of receiving appropriate responses as quickly as possible is significant in this context.

However, it is substantial for counselling provision that immediacy should not be equated with the Internet '*per se*', but rather has to be produced consciously as an individual achievement by responsible providers. Empirical findings on the significance of short term responses concerning online counselling demands seem to substantiate this suggestion (see Arnold 2001; Kutscher 2003). With respect to the chatting preferences especially of young people of a formally lower educational level and with reference to social inequality in virtual space, quick responsiveness is particularly significant (for more details, cf. Klein 2004).

Furthermore, the interest in chatting and/or socialising may be taken as preference for informal support of the juvenile users. This tendency already finds some correspondence in typical chats, in which young people equally look for exchange, contact and support regarding their individual problems, concerns and questions. This will be hardly surprising, since the individual priority for informal information-seeking has already been identified in previous research on off-line support (cf. Nestmann 1988). Still, the existing use preferences gain a new dimension in the course of a professional and likewise participative online consultation, such as to create a double orientation within the juvenile users: On the one hand towards the demand for support regarding professional consultation, and on the other hand regarding contact and experience-based layman-assistance. This

double orientation reveals a certain tension between the original quality claims of the professionals and the young people, which can be depicted as follows:

Professionals	Adolescents
Counselling	Contact
Issue Convergence	Emotional Affirmation
Topical Information	Experience-Based Exchange
Development	Affiliation
Transparency	Informalisation
„weak ties“	„strong ties“
Security / Control	Autonomy
Tensions between:	
Informational Support	Emotional Support

Table 2: Online counselling preferences of users and professionals

With those double preferences of the juvenile users and the professional-based quality claims and activities of the professionals, one might circumscribe the following dimensions for further critical reflection, which should focus on unequal access to social support as a crucial feature within the Web:

- The field of *topical convergences and/or topical divergences* which refers to the question of the topical ‘suitability’ of available services with respect to the different user groups;
- The field of *structural convergences and/or structural divergences* which refers to the question of a medium-based ‘suitability’ of available service with respect to the different user groups;
- The field of *informalisation tendencies* which refers to the question of the interpersonal ‘suitability’ of available service with respect to the different user groups.

In line with these results, it can be assumed that within the online counselling service provision, both the content level and the communication patterns exhibit implications which might affect the processes of social closure as well as of social homogenization of users for whom 'voice' is possible.

VI Conclusions

Against the background of our first results, it can now be asked which consequences result with respect to further research and the development of respective online offers. In the following, central dimensions will be discussed.

VI.1 Degrees of Formal Education as Precondition For Online Use

The findings from the interviews as well as those from the first questionnaire survey clearly demonstrate the central significance of formal educational levels with respect to different using styles. Even using methods of multivariate analyses, the variable 'formal education' could explain particular effects more strongly than the variables 'age' or 'sex' – even with slight differentiations regarding the distinct educational levels. Due to the pending inclusion of further samples on a lower formal educational level in the second questionnaire survey, more significant differences are to be expected in future research (see the data results of the general analysis of the survey at www.kib-bielefeld.de).

VI.2 Use Differences

There are major differences in Internet use among young people. Cause and objectives of Internet use differ with respect to the socio-demographical structures of the adolescents. Likewise, there is a recognizable continuation of off-line habits, hobbies, and interests in the respective online-activities. Similarly, the degree of individual gain of access and control online also differ strongly according to the educational background of the individual person. With respect to the development of further online offers, it seems necessary to distinguish search and structuring options according to the individual target groups of the respective online service. The same applies regarding the opportunities for self-actualization and/or self-presentation with respect to the different application styles, e.g. photo communities, individual homepages, adjustable weblogs or 'user houses'. Data from the surf-interviews

demonstrate significant deviations between individual self-descriptions and observed surfing-behaviour (and respective problems) of the observed adolescents. It emerged that even on clearly designed but unfamiliar Internet sites the visual orientation within the Internet page by means of clearly marked text parts was more important for some of the interviewees with a formally low educational background than content description. Thus, usability questions emerge in a new way, which might lead to an appropriate development of the respective using patterns – regarding both the wide range of service structures for different target groups and possible advantages even for "non-disadvantaged" users – by more transparent, understandable and clear descriptions combined with optical references for individual using strategies.

Moreover it could be observed that especially young users on a formally lower educational level even with extremely restricted Internet use will not experience irritations and/or limitations frequently. Due to the fact that fewer experienced users frequently exhibited a sort of "instant" Internet use (e.g. no email-account, no login habits), one might consider, in the development of future online offers, linking the introduction of an attractive service structure to acquirement- and education-referred incentives, which could for instance be based on membership rules.

Seeing that initial access into the Internet is mainly accomplished by joining chat services, such an offer can constitute an incentive of a low-barrier opportunity of access for less- or inexperienced users. Private 'arrays' also seem important in which the adolescents can decide whom to invite or not to invite, what to make public and what to keep private. (Such services may hold dangers with respect to youth welfare; however, these could be resolved by means of educational discussions – not in the sense of avoidance, but rather in the sense of the promotion of critical media competence.) Local integration typically influences chat-room usage; social networks online and off-line frequently overlap and, as transpired in the course of interviews, the establishment of contact will potentially continue in the off-line life of the young people.

Peer-structures are crucial for the development of use patterns. In the online context, one might therefore observe processes of social exclusion along structures which accompany Internet use. Thus, peer-structures should continue to be observed in the future and considered with respect to the development of service structures.

VI.3 Participation Styles

In their public form, Internet forums constitute an opinion-forming and stimulating sphere in which transparency is medially produced, but also has to be realized consciously. These general frame conditions present preconditions that make it possible for the juvenile users to recognize the forum as an adequate place for the presentation of their interests, both vis-à-vis to the professionals and in discussions among each other. The concern here is thus to broaden the content and structures of the respective online offer as well as of the discussions related to it. However, it cannot be predicted that this development will necessarily be realized in practice. Against the background of the 'voice divide'-phenomenon, it is necessary instead to implement inequality-sensitive professional quality as well as to avoid "an unfair communitarianism of the majority" (Fraser 2003). Accordingly, we are confronted with a classical participation dilemma that meets its correspondence and its qualification within net-based social service provision. The responsiveness of an online offer within social service provision thus attains a core position concerning Internet use.

Finally, it may be stated that there are social and technical conditions of online access which do not merely require 'pure presence' of the individual user but equally aim at the preconditions for perceiving the voice option. Referring to the study of Emig (1997, 41), fading out these double conditions might be equal to a 'social-darwinist filter' to online access: "Those who can afford commitment will control those who cannot or do not want to become engaged" (our translation). Since 'articulation of interest' and 'participation' are the elementary points of reference regarding the 'democratic quality' of Internet-based social service provision, a major concern here is the 'inequality-sensitive reflection' of individual participation styles in order to enable pluralistic conditions of accessibility with respect to the 'voice divide'-phenomenon.

Altogether, the first results of the present studies indicate that a difference-sensitive view of use and participation styles which ignores educational and socio-demographical influence factors will remain insufficiently significant. Despite the increasing dispersion of computers and Internet connections³⁶, there still will be a remarkable continuation of use differences with respect to different social conditions

³⁶ (whereas some studies nevertheless point to a constant number of Internet refusing persons or 'non-liners', see, for instance, the (N)Onliner Atlas of D21 and the online studies of the First and Second Channel of the German Broadcasting Cooperation)

– unless the promotion of acquirement patterns of the extended using possibilities according to the respective abilities and interests (in the sense of a promotion of development) will take place.³⁷

As a consequence, this implies further observation of social closure and processes of social exclusion in the field of online research as well as the consideration of different target groups related to the development of topics and structures in online services.

VII References

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³⁷ This requires an increasing qualification of specialists in their work with young people, particularly regarding this problem, so that youth media work can be specifically directed at those adolescents who do not have the advantage of supporting social structures.

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