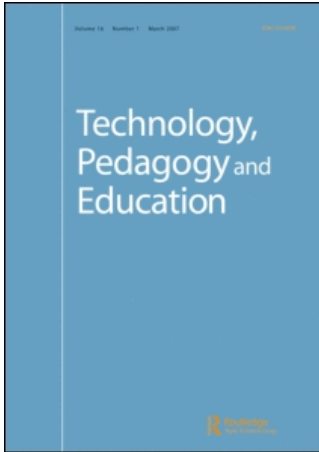


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### Young people's Internet use and its significance for informal education and social participation

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## Young people's Internet use and its significance for informal education and social participation

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This paper focuses on *digital inequality* – a key mediating issue within the education technology debate. In particular, it examines how the social and cultural resources of young people relate to their usage behaviour within the informal space of the Internet and what options are available to counter this digital inequality in terms of encouraging online informative and educative activities. Based on a survey of 1024 young people in Germany (aged between 14 and 23 years), data show that even among young users, who are supposedly the 'Internet-savvy' generation, significant and enduring inequalities of outcome persist – especially in terms of different indicators of educational background. The paper presents a detailed analysis of the ways in which young people use the Internet, showing significant differences in the use of different services – and, beyond this, in the ways in which the same services are used. The implications of these divisions for those seeking to encourage use of the Internet for informal and formal education are discussed.

**Keywords:** Internet; inequality; informal learning; Germany

### Introduction

Over the last 10 years, the Internet has grown to be one of the most important information and communication media. Whereas in 1997, only 6.4% of over-14-year-olds were using the Internet in Germany, this figure grew to 59.5% in 2006 (van Eimeren & Frees, 2006). The last 12 months have also seen 1.2 million new users in Germany alone. In 1997, almost 60% of Internet users were reliant on Internet access from outside the home, whereas in 2005 this had dropped to less than 15% (van Eimeren & Frees, 2005). Although there are still marked inequalities – in age, gender, employment status, and income – in formal access to the Internet, previously under-represented groups in the population are now becoming increasingly prominent users (see (N)Onliner Atlas, 2006; van Eimeren & Frees, 2005, 2006). Thus, not only in terms of wider social, cultural, and economic relevance, but also in actual usage, the Internet seems to have established itself as a social 'must'.

Much attention has been paid to youth as a 'technically savvy generation', regardless of limitations due to individual circumstance and background (Livingstone, Bober, & Helsper, 2004). According to data from the 2006 JIM Study, not only 94% of German higher secondary school (*Gymnasium*) students but also almost 83% of lower secondary school (*Hauptschule*) students now use the Internet. Alongside the frequently reported preference for use as a communication medium among young people, there is also a strong

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orientation toward searching for information on personal topics such as school, work, future training, friendship and romantic partnership (Feierabend & Rathgeb, 2005). However, making such a distinction between the Internet as a communication medium and as an information medium may be only an analytical construction, with services and uses increasingly converging in practice. This is particularly evident in the way young people search for net-based support. Among British youth, one quarter of Internet users search explicitly for advice and help on the Internet, with only marginal class-specific differences (see Livingstone et al., 2004). Similarly, in the United States, 22% of teenage Internet users replied affirmatively when asked 'if they ever look for information online about a health topic that's hard to talk about, like drug use, sexual health, or depression' (Lenhart, Madden, & Hitlin, 2005, p. 42). Particularly when searching for advice and assistance, the relationship between communication and information medium becomes blurred. Online searches for support may take a written form, or only involve reading or receiving help. Both types of use merge together, particularly when both communication and information are structurally available alternatives when using an online service.

Such basic data on young people's Internet access make it clear that the medium has now become an 'object' of daily use – at least among young users. Yet, moving away from the level of formal access to the Internet, numerous empirical studies indicate major differences in the ways in which different people use the Internet. This is not surprising when it is considered that its media characteristics make the Internet what is called a 'pull' medium. Pull media are characterised by the fact that the way services are arranged takes form through the selection decisions of users. It should not be forgotten that the Internet is a complex technical infrastructure that can open up many paths of navigation and usage options. From a number of existing and changing provisions, users are permanently compiling their own 'service' on the basis of their own personal interests, abilities, and skills, as well as the specific design of available provisions. However, it cannot be assumed that users make their selections on the basis of consciously calculated and purely rational decisions, nor that they have substantial abilities that can be viewed independently from the specific services and their medial, content-related, and interpersonal 'fit/suitability' (see, for the latter, Klein, 2004, 2006). It is more the case that users – more or less consciously – form habitualised usage practices against the background of specific abilities, skills, and interests that seem to 'consolidate as stable differences of level in handling the new medium' (Oehmichen & Schröter, 2006, p. 442, translated).

To date, the typologies of Internet use gathered empirically from representative data for Germany have addressed all Internet users together. The only partial exception is the typology based on online data from the two main public television channels in Germany, ARD and ZDF, developed by Oehmichen and Schröter (2004). Although this refers to Internet users over the age of 14, it does not perform any separate analysis of Internet use by young people. However, a differentiated examination of young people's usage practices would be needed to confirm the assumption discussed above of a purportedly 'technically savvy youth'. Oehmichen and Schröter themselves noted the lack of empirical support for this claim: even 'among the 14- to 19-year-olds or the 20- to 29-year-olds, there is a relatively high proportion of users who in no way exploit the full potential of the Internet' (Oehmichen & Schröter, 2006, p. 447, translated). Instead, they considered:

[There is] not only the difference between young and old, but – and this seems more important – between educated and uneducated. The knowledge gap – between the 'digital natives' and the 'digital immigrants' – runs through all generations. A young person who knows how to send an email, how to download music, and also knows the site with the best radio programmes, in

no way needs to be able to use the Internet meaningfully to gather information or to grasp the latest features of Web 2.0. (Oehmichen & Schröter, 2006, p. 448, translated)

In all these discussions, media competence is viewed as a ‘magic bullet’ that should enable young users to exploit the technical possibilities of the Internet. Surprisingly, these large-scale studies do not define what we should understand by media competence or provide any contextualisation of the usage practices of the young – whether in terms of their ‘media competence’, their evaluations, or their milieu-specific habits and preferences. We would argue that such a contextualisation of usage practices, perspectives, and evaluations on the one hand, and an analysis of the respective provisions on the other, is indispensable if we want to gain a comprehensive understanding of the potentials and restrictions of everyday media usage by different users in different medial arrangements. Therefore, this article will focus on what media competence might be for young people, taking account of the specific provisions in the Internet – their medial, content-related, and social constitution on the one side, and the available and applicable abilities and skills of the user on the other.

### The Internet as a potential space for education processes

Over the past 10 years there has been lively discussion of the Internet as a medium with both educational risks and opportunities – be it debates over the need to control computer games after tragic shootings like those at schools in the German towns of Erfurt or Emsdetten, or assumptions that young people with good Internet knowledge will perform better at school (OECD, 2006). These debates are often accompanied by discussions on how far the Internet opens up new and broader opportunities to acquire education, knowledge, and action competencies (see Tully, 2004). Supporters of this perspective frequently regard youth as the epitome of the ‘Internet-savvy’ generation who, having grown up with the medium, are familiar with it *per se* and can handle it competently in all life situations. This perspective gained impetus after the publication of *Net Kids* by Don Tapscott (1998), in which he describes youth as a generation developing new forms of social participation and a new understanding of democracy in general through growing up with the new media (see Stegbauer & Rausch, 2001, for a criticism of Tapscott’s and others’ projections). Nonetheless, these propositions have resurfaced recently with the emergence of ‘Web 2.0’, and have to be seriously questioned against the background of inequalities in ways of using the Internet.

If the Internet is to be analysed as a site that extends the potentials and abilities of users and opens up access to education, we have to start by taking a closer look at the conditions under which it is generally used. The typical usage situation is an *informal* context, where individuals use the Internet to pursue subjective motives. That said, various studies have shown that what first seem to be subjective preferences reveal a clear relation to socio-cultural background. In a first step, these preferences lead to certain Internet services being perceived as attractive and used when they meet the users’ interests, whereas other services will be used less or not at all (see Iske, Klein, & Kutscher, 2005; Livingstone et al., 2004; Otto, Kutscher, Klein, & Iske, 2004). At the same time, the offline resources available to the specific user are also decisive. Peer structures, family origins, and school education contexts influence the social, cultural, and economic capital for Internet use. In this sense, the preconditions under which young people use the Internet and the services it provides are distributed differently as a function of the availability of these resources.

This becomes particularly apparent from the perspective of Vester’s education milieus (see Vester, von Oertzen, Geiling, Herrmann, & Müller, 2001). Here Michael Vester has reconstructed socialisation sites that differ, among others,

... according to which daily practices are valued highly and gain (milieu-specific) recognition, or which ideas on upbringing are dominant. In interaction with these socialisation backgrounds, young people develop different saliency structures on the basis of different milieu-specific recognition patterns that lead to distinguishable preference rankings. In this sense, milieus provide a special corpus of knowledge that decisively determines action orientations in the real world and the relevant abilities to perform them. This implicit and explicit corpus of knowledge is based on a treasure of socialisation experience. (Bittlingmayer & Hurrelmann, 2005, pp. 5–6, translated)

In other words, differences in usage in the informal context relate to milieu-specific preferences that cannot be explained exclusively through deficits in resources. It is more the case that, from an everyday life perspective, certain types of usage can be reconstructed more relevantly within a specific social context. This can be seen through Bourdieu's concept of *habitus* (see Bourdieu, 1987), thus explaining types of usage that are oriented more toward an educated middle-class education habitus (e.g., specific topic-oriented searches of the Internet) just as much as forms of use that take a more 'hedonistic' and often instrumental orientation (e.g., playing games, chatting). However, the debates on the education potential of the Internet show that whilst certain types of usage are considered 'more desirable' (e.g., purposeful information searches) than others (e.g., chatting), these different contexts call for different user competencies.

Aside from these variations, we cannot overlook the continued presence of groups that are excluded from using certain fundamental functions of the Internet because of their different interests or relevance structures, opportunities, and abilities. One example of this is having an email address. The 2005 JIM Study reported that 22% of students attending the general *Hauptschule* did not have their own email address, compared with only 5% attending the academically oriented *Gymnasium* (see JIM, 2005, p. 44). With these differences in mind, in the remainder of this paper we shall draw on our own empirical data from research at the *Kompetenzzentrum Informelle Bildung* (KIB)/Centre of Competence for Informal Education (CCIE) to study how far these indications can be confirmed, and examine them more closely in a more differentiated context.

## Research methods

KIB/CCIE's study of 'Young People's Internet Use and Digital Inequality' examined the influence of educational background on young people's opportunities to use the Internet. This study focused particularly on *digital inequality*: how the social and cultural resources of young people relate to their concrete usage behaviour within the informal space of the Internet, and what options are available to counter this digital inequality.

Data were collected via the offline procedure of the computer-assisted telephone interview (CATI) in order to access a representative cross-section of German youth and particularly avoid the distorting self-selecting effects of online data collection procedures that can lead to a non-representative shift in the sample. In this way, it was possible to reach those who hardly or never use the Internet, and avoid any implicit over-participation of intensive Internet users, as is easily the case with online panels. A total of 1024 young people were recruited through a representative random sampling of the population of 14- to 23-year-olds in Germany, based on 16 selected communities. Along with German native speakers, interviews were also carried out by Turkish and Russian native speakers in order to access young people with limited knowledge of German. The whole offline procedure also made it possible to analyse offline phenomena (Internet 'objectors') and particularly dropout phenomena (Internet 'desisters'), on whom little empirical data have been available in Germany up to

now. Through its representative sample and its particular focus, this is the first study that can make statements going beyond existing assessments of Internet use in Germany – such as the JIM studies, the ARD/ZDF online studies, and (N)Onliner Atlas – and particularly address differentiated aspects of education and participation in the Internet.

This article presents only a cross-section of the findings as they related to the influence of educational background. Similar to the work of Livingstone et al. (2004), forms of Internet usage were analysed in relation to socio-demographic variables. The following categories were selected and further developed: *peer-to-peer connection*, *interactivity*, *seeking information*, *communicating*, *web page/content creation*, and *visiting youth websites*. Livingstone et al. (2004) used these categories as indicators for *participation* in the Internet. For the present study, the research group at the KIB/CCIE developed these categories further against the background of a broad *usage* concept and an extended participation concept. For example, the KIB/CCIE analysis considered ‘lurkers’, who are not found in Livingstone et al., as well as a broader survey of which websites are used. Whereas Livingstone et al. asked about the use of what can be termed classic ‘participation’ websites, the KIB/CCIE included websites that target young people and make broader access available to them – beyond civil participation in a narrower sense (see Kutscher & Otto, 2007). The KIB/CCIE categories were therefore structured as follows:

- |   |   |
|---|---|
| (1) <i>Peer-to-peer connection</i> :        | defined as interactive usage with social connotations through the usage variables ‘visiting web logs’, ‘playing online games’, ‘downloading’ (e.g., software, games, customised ring tones, music, movies, etc.), and ‘registering for Internet services’ (chats, mail providers, news-groups, etc.).                             |
| (2) <i>Interactivity</i> :                  | operationalised as participation of users who make themselves ‘visible’ on the Internet through the variables ‘voting on ballots’, ‘writing to Internet managers/service providers’ (comments, questions, criticisms, etc.), ‘writing online articles themselves’, ‘visiting an Internet forum’ and ‘posting on Internet forums’. |
| (3) <i>Seeking information</i> :            | specified by the usage variables ‘simply surfing with no particular goal’, ‘searching for specific information’ and ‘visiting wikis’ (Internet encyclopedias). One major item asked whether respondents viewed the Internet as an important aid in sourcing information on all possible questions and topics.                     |
| (4) <i>Communicating</i> :                  | covered the classic communication services and was addressed with the usage variables ‘sending and receiving emails’, ‘using a messaging service’ and ‘visiting a chat room’.   |
| (5) <i>Web page/content creation</i> :      | covered Internet activities associated with a high degree of personal involvement, and was addressed with the usage variables ‘managing a website that I have set up myself’ and ‘writing articles in forums, web logs, wikis, or chat rooms’ (see below, on lurkers and posters).  |
| (6) <i>Favorite sites in the Internet</i> : | which popular websites the young people know and use.   |

The central demographic variables were the formal education background of the young people surveyed, their gender, age, and family origins. Other variables were the young people’s self-reported Internet expertise and their self-reported frequency of using the Internet (see Otto et al., 2005, for a full description of the questions asked). The following reports some major findings from the survey.

## Results

### *i) Going on the Internet*

The close relationship between Internet access/usage and education background can be seen in terms of everyday media usage practices, for example, in having one's own private access to the Internet ( $r = 0.603$ ,  $p < 0.001$ ). Hence, any analysis of Internet-based information searching has to recognise that Internet access is not distributed evenly across all young people. General usage of the Internet in leisure time was found to correlate strongly with all indicators of education background (see Table 1). In short, the higher the educational background of the parents of the young people surveyed, the more frequently these respondents used the Internet.

### *ii) Communication usage*

There were also clear differences in the single communication-oriented usages. For example, frequent email usage was found to relate significantly to use of the Internet as a leisure-time pursuit in general (see Table 2), as well as to particularly frequent Internet usage. Email use was also patterned significantly along indicators of socio-economic status and educational background, such as the general level of formal education, the school-leaving qualifications of those no longer attending school, the school-leaving qualifications desired by those still attending school, the cultural capital of the family of origin, and Internet access in the parental home. Rating oneself as an advanced user and rating the Internet as 'an important source of information on all possible questions and topics' were also correlated significantly to email use.

Frequent chat room usage correlated strongly with attending a *Gymnasium* rather than *Hauptschule* class of school ( $r = -0.231$ ,  $p < 0.001$ ) and, as a trend, with desiring intermediate to low formal school-leaving qualifications ( $r = -0.187$ ,  $p < 0.001$ ). Findings on Internet forum usage revealed a similar profile to those on email usage (see Table 3). Here too, this involved using the Internet for leisure-time purposes, and intensive usage along with a high level of formal education. Viewing the Internet as an important aid and Internet access in the parental home also seemed to exert a positive influence. On the other hand, our data relating to instant messaging revealed a slightly weaker negative correlation with attending a school with a high formal level ( $r = -0.178$ ,  $p < 0.001$ ).

In sum, it would appear that there continue to be marked differences in communication preferences on the Internet as a function of formal levels of education. Email and forum usage relate clearly to a higher formal education background (*Hauptschule*), whereas chat usage, in contrast, tends to be associated with a lower formal education background. These findings point to processes of distinction and closure on the Internet, in line with earlier research findings identifying the specific ways of using the Internet as being socially

Table 1. Correlations between education background and Internet usage.

	Frequent Internet usage
Type of school presently attended and highest school-leaving qualifications attained	0.342*
Type of school presently attended	0.289*
Highest school-leaving qualifications attained	0.336*
Educational background of parents	0.409*

\*  $p < 0.001$ .

Table 2. Correlations between email usage and socio-demographic data.

	Frequent email usage
Internet as leisure-time pursuit	0.444*
Frequent Internet usage	0.410*
Formal education background in general	0.262*
Desired school-leaving qualification	0.241*
Attained school-leaving qualification	0.307*
Cultural capital of family of origin (more than 100 books in the home)	0.201*
Internet access in parental home	0.191*
Self-rating regarding Internet expertise	0.357*
Internet is an important source of information on all possible questions and topics	0.299*

\*\*  $p < 0.001$ .

contextualised; they indicate the need for differentiated Internet and youth media provisions in response to this.

### iii) Searching for information

In terms of using the Internet as an information medium, different means of specific searching for information were reported (see Table 4). While the activity of 'surfing with no specific goal' was not found to correlate with any variable, 'specific searching for information' revealed a strong correlation with a high formal education background and with intensive usage of the Internet (see Table 5). However, no relations could be found with, for example, gender, type of residential area, or frequency of Internet usage.

Strong correlations with the formal education background were found for the items 'I use a search engine such as Google' and 'I use an Internet encyclopedia'. The correlation between using search engines to search specifically for information and formal educational background was  $r = 0.317$ ,  $p < 0.001$ . In other words, the lower the formal education background, the less frequently search engines were used to search specifically for information.

Whereas the majority of respondents used search engines ( $n = 892$ ), the group of respondents who did not use them ( $n = 83$ ) were predominantly from a lower formal education background. Similarly, the differences in usage based on formal education differences reported here for the use of the Internet as an information medium can also be

Table 3. Forum usage and socio-demographic data.

	Frequent forum usage
Internet as leisure-time pursuit	0.380*
Intensive Internet usage	0.366*
Formal education	0.172*
Internet is an important source of information on all possible questions and topics	0.227*
Internet access in parental home	0.181*

\*\*  $p < 0.001$ .



Table 4. Types of specific searching for information (n = 965).

	Reports (%)
Search engines	99.4
Asking for Internet addresses	69.3
Direct entry of Internet address in browser (trial-wise)	67.6
Use of an Internet encyclopedia	55.0
Use of information portals	25.6

seen in the use of Internet encyclopedias (correlation to formal education background of  $r = 0.412$ ,  $p < 0.001$ ) and in the differentiated use of search engines (e.g. performing more than one search attempt for a piece of information). From the perspective of a differentiated usage of the Internet, this supports the proposition that even with popular Internet services such as search engines (in this case Google), usage cannot be assumed to be universal and equally distributed.

#### *iv) Non-participatory use of communication services*

Finally, we can report on the little-researched practice of 'lurking' – i.e. non-participatory use of computer-mediated communication applications. Lurking in chat rooms showed little relationship to socio-demographic features. Correlations show significant negative trends only at a significance level of  $p < 0.05$ ; that is,  $r = -0.161$  with the formal education background;  $r = -0.137$  with school-leaving qualifications;  $r = -0.090$  with gender; and  $r = -0.097$  with frequency of use. Lurking was far more widespread in forums than in chat rooms. Of the 629 young people who reported using Internet forums, 40.5% were lurkers. Particularly high correlations were found here with the frequency of use and self-rated expertise. Of the 82 young people who used forums and described themselves as novices, more than 50% were lurkers, as opposed to 30% who described themselves as advanced. With regard to frequency of usage, of the 334 young people who go on the Internet 'often' and use forums, 67.4% were posters. Among sporadic users, by contrast, only one-third were posters. Web logs ('blogs') were generally less widespread among respondents than forums or chat rooms. Of the young people using the Internet, 21.6% reported visiting blogs, at least occasionally, or writing contributions to them. Though educational background did not correlate with reading blogs, there was a clear negative relation between the formal education level of students and writing/commenting on blogs ( $r = -0.280$ ,  $p < 0.001$ ).

Table 5. Specific searching for information and socio-demographic data.

	Specific searching for information in Internet
Formal education (in general)	0.283*
Type of school attended	0.216*
Desired school-leaving qualification	0.299*
Attained school-leaving qualification	0.260*
Frequency of usage	0.221*

\*\*  $p < 0.001$ .

Among those no longer attending school, this correlation was even stronger ( $r = -0.364$ ,  $p < 0.001$ ). This means that almost one-half of respondents with low formal education reported also writing their own contributions to blogs, compared with only one-third among those with intermediate education and one-fifth among those with a high formal education.

A clear relation between formal education and usage could also be found for so-called 'wikis'. Whereas the proportion of young people with low education who use no wikis lay at over 70%, roughly the same proportion of those with high education used them. If, bearing in mind the low numbers of cases, we look at the way they were used, the data reveal some interesting trends. Here, too, the proportion of respondents with lower formal education who are writers was higher than the proportion of those with a high formal education.

## Discussion

Recent research on 'digital inequalities' now reveals a broad consensus that use of the Internet reflects inequalities in terms of access to economic, cultural, and social resources outside the Internet (see Hargittai, 2004; Livingstone et al., 2004). The empirical findings reported in this paper show that this phenomenon is far from being restricted to adult Internet users, but is also mirrored within the group of young users who are supposedly the 'Internet-savvy generation'. Even among the young, the classic variables of social inequality appear to correspond strongly with differences in Internet usage. A detailed analysis of the ways in which young people use the Internet, taking digital inequality into account, shows significant differences in the use of different services – and, furthermore, in the ways in which the same services are used.

Empirical data have shown that the potential usage options for the Internet are evidently not accessible to the same extent to all users. Looking at the Internet as a so-called 'pull' medium, this is no surprise. Dependence on the attention span and navigation decisions of users is a constitutive aspect of pull media, with the media only taking form through being used. From this perspective, it has been argued that a 'cultural and social differentiation according to the interests and motivations of the user' is evoked within the new media (Lenz & Zillien, 2005, p. 250, translated). However, this line of argument – focusing not only on the interests and motives of the users, but also on the medium 'as such' – fails to reveal essential aspects that are relevant for an understanding of virtual inequality, and thus also for possible strategies to counter it. The motives and interests of users should not be understood as being either substantial or independent from social contexts. It is far more the case that they represent, as it were, the realisation potentials of different motives and interests for different users in different (virtual) arrangements. Hence, any analysis of digital inequality also has to consider differences in usage while simultaneously examining the virtual arrangements in which these types of usage occur.

Against the background of the empirical findings presented here, the definition of the Internet as a multifaceted social field within which various education processes can take place is confronted with a twofold challenge. Firstly, in terms of the interplay between service and usage, it is necessary to detect and grant recognition to the real-world relevance structures of young people. The goal cannot be to rear all young people to use the Internet in one specific way and strive toward conformity of content, but to discover and encourage education potentials in a context-related sense. For example, online chatting can promote the acquisition of certain action competencies (e.g., making contact with others, informal support communication). The basic goal is to provide equal opportunities in usage. The decision on how far individuals choose to take advantage of these opportunities and how far they play, or should play, a role in real daily life has to be left to the young

people themselves. The goal is to create the necessary conditions for this to become an informed decision.

Secondly, regarding the goal of enabling users to gain social participation and access to education in a knowledge society, the question is how to achieve this in target groups that are unable or unwilling to comply unquestioningly with the demands of self-guided, topic-related services that require the individual to take personal responsibility for their use. The reference point for a socially recognised Internet usage is frequently defined through specific competencies such as critical information search or knowledge acquisition. However, this does not always correspond to the motives for usage and the associated appropriation practice. To overcome these problems, it is necessary to intervene in two ways in order to open up participation opportunities in the Internet: on the one hand, by extending the social and cultural resources of users; on the other hand, by extending the possibilities of access (also figuratively speaking), not only on the side of users but also on the side of services. It is only such a non-formal intervention – which does not just set a certain qualification goal in absolute terms, but focuses on both sides, and particularly on the needs and potentials of the users – that will make it possible to build a bridge between subjective appropriation and societal enablement (see Kutscher, 2006).

However, making this possible requires non-formal interventions – oriented toward the interests, potentials, and preferences of young people – that will empower them to participate in society, both within and beyond the Internet. In order to design these as instrumental and inequality-sensitive environments, it is necessary to define quality aspects that take account of both the user and provider sides and contribute to extending the usage options for different user groups against this background.

Nonetheless, to actually overcome the inequalities, it will be necessary to introduce interventions both within the Internet (i.e., through a target-group-sensitive design of provision services) and outside the Internet (i.e., through programmes to expand young people's abilities located in the youth services and media services). This should enable social and educational participation within the framework of the Internet, so that those who have until now been under-represented within the context of e-government will be able to increase their chances of participation. Put briefly, it is necessary to intervene both offline and online in order to enable users to realise broader opportunities in their life-world context. This means, on the one hand, providing support for the use of the services already available on the Internet while, on the other hand, optimising what is there to increase its target-group-sensitive utility (see Kutscher, 2005).

Hence, it is only against the background of this socially contextualised perspective that processes of informal education in the Internet can be understood and designed in terms of the constitution of the services. Therefore, there is not only a need for a more extended and in-depth perspective on the processes and structures in the Internet, but also for a professional quality debate that will address the design of services on the basis of scientific knowledge, and open up education processes and processes of participation to critical reflection.

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