'Digital Natives' and Online Information Resources: How They Search and What We Offer

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Abstract

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Quantitative youth media research shows that there has been a huge increase in media use among youth worldwide. For this so-called generation of 'digital natives', the web is the most used and appreciated medium because it provides tremendous opportunities for their socialisation. But several studies in information seeking behaviour support the assumption that the information literacy competencies of 'digital natives' have not improved despite the growth in ICT skills and the increased access to the web. Especially in terms of learning support, we have to face a widening gap between what librarians consider high quality online information resources and what students regard as appropriate for meeting their information needs in schools or university. This paper discusses concepts of online information services that libraries could offer to reach and capture the target group of 'digital natives'.

Introduction

Nowadays, media are among the most powerful forces in young people's lives. Quantitative youth media research tells us that over the last five years there has been a huge increase in media use among children and adolescents[1]. According to the German JIM-survey ('Youth and (multi-)media'), in 2010 German adolescents spent 138 minutes each day on the web. When young people are asked what media are most important to them, computers und the Internet rank first. However, this does not mean at all that the so-called generation of 'digital natives' are abandoning traditional media. Though TV is no longer the primary medium for the 12-19 age group, German adolescents still watch 109 minutes of television per day.

In any case, for this generation of 'digital natives' the web is the most used <u>and</u> appreciated medium, because it provides tremendous opportunities for their socialisation. The Internet helps define adolescents' social identities by enabling multiple communication functions such as instant messaging, chats and blogs so they can easily connect with their peers and find social support. Youth media research also tells us that the way in which young people use computers and the Internet appears to be very different from how they use traditional media. In everyday life, the Internet is transforming the social world of adolescents by influencing how they communicate and how they establish and maintain relationships. It is hardly surprising that 46% of the time that 12- to 19-year-olds spend on the web is devoted to communication and social networking functions, while only 14% is used for information searches[2].

Information seeking behaviour of 'digital natives'

If 'digital natives' use the web to search for information, their search behaviour is mainly characterised by routine and effectiveness, and not by thoroughness and information literacy as librarians would prefer it to be. The survey results of the 'Google Generation' research studies at UCL CIBER in London[3] have recently alarmed librarians worldwide, since it has been found that the information search behaviour of students has deteriorated significantly. Overall, the study's authors blame a poor understanding of information needs and the unsophisticated mental maps of the 'Google Generation' for their lack of information literacy: 'consequently, young people do not find library-sponsored resources intuitive and therefore prefer to use Google or Yahoo! instead: these offer a familiar, if simplistic solution, for their study needs.'[4]

Several research studies in the information seeking behaviour of 'digital natives' support the assumption that information literacy competencies of young people have not improved despite the growth in ICT skills and the increased access to the web, especially in the support of learning processes. For example, the Information School at the University of Washington has conducted a national, large-scale research project on young adults and their information search behaviour, competencies, and the challenges they face when conducting research in the digital age[5].

According to the authors, 'the findings suggest students use an information-seeking and research strategy driven by efficiency and predictability for managing and controlling all of the information available to them on college campuses, though conducting comprehensive research and learning something new is important to most, along with passing the course and the grade received.'[6] The majority of the 8,353 undergraduates surveyed tended to turn to the same databases and prefer the same search strategies, regardless of the topic or the information needed. As a whole, the main problem of this media generation seems to be not finding any information at all (as they consider information to be as 'limitless as the universe'). The challenge for 'digital natives' is learning how to reduce the number of search options so that the task becomes more manageable for them.

What 'digital natives' search and what libraries offer: room for improvement

Against this background, we now face a widening gap between what we as librarians consider high quality online information resources and what students are looking for to handle their information needs in schools or university. While information professionals continue to take pride in offering an increasing number of online resources with even greater content, our customer group actively looks for strategies on how to reduce the search options. Metaphorically speaking, as they almost drown in the 21st century tsunami of information, most 'digital natives' seem to look for surfboards which allow them to ride on the huge waves of information that are crashing threateningly over their heads. The container ships fully loaded with repositories or database items that we as librarians are providing to help them navigate the ocean of information do not appear to be very helpful or attractive to them.

Furthermore, the 'Information Literacy Progress Report'[7] found significant differences in the information sources used by undergraduates for course-related research and the resources used for their daily information needs. When it comes to personal research needs, less than half of the students use libraries or library databases – alarming results for information professionals who think that libraries can survive in a digital world as they are. We also need to accept the fact that the skills students develop in the use of social networking tools do not necessarily translate into good information search skills in a learning context.

Considering the relevant results of youth media and information seeking research and focusing on the ways in which youth use information (e.g. searching and using information 'just in time' or preferring multitasking and a simultaneous, non-linear access to multiple sources) may offer us clues about how we might redesign appropriate information services for this user group. In addition, in our daily work we need to acknowledge that we are dealing with a media generation who are intuitive visual communicators and who prefer inductive discovery.

Up to now, most of the online information resources we have provided rely on the assumption that our users have a sophisticated understanding of information retrieval in databases or repositories and a strong motivation to seek information until they find what they are looking for. But in the light of the research findings cited above, this seems to be an illusion we have become accustomed to believe in. Consequently, we should focus on easy-to-handle and interactive information services that meet expectations, individual information needs and search competencies of 'digital natives'. In practice, we must increase the responsiveness to their needs dramatically.

To give an example: when this user group needs assistance (and is unwilling to ask for it) librarians must be present any time as interactive, competent partners, eg. as 'digital concierge'[8], a concept developed from Irvine Libraries, University of California. In their case study, the authors recommend to evaluate web statistics and the implementation of feedback mechanisms in order to 'change how patrons interact with library websites, making it easier for them to find the information they need, and thus making the use of a library's resources and services in the research process more interactive, enjoyable, and rewarding.'[9] Their concept of changing a library's website from a static repository to a dynamic service point meets the information-seeking behaviour of 'digital natives' very well, especially within the perspective of their media socialization. For libraries still tend to offer online information services for users who grew up with traditional media and to ignore the needs of clients who are not used to dealing with bibliographies and indexes. Consequently, the development of proactive strategies in order to 'hook them once we've got them to look' at our information services prevents that potential users feel overwhelmed by the amount of information we have to offer in the 'deep web'.

In a nutshell, we will never reach the target group of 'digital natives' without understanding the mediascapes they inhabit. But by demystifying this media generation in the light of current research results, we may come to the conclusion of Palfrey & Gasser: 'There are no hard data to suggest that Digital Natives are smarter than anyone who came before them. Neither is there any sign that kids are dumber, or in any way less promising, than previous generations of kids. Digital Natives are doing the same things their parents did with information, just in different ways.'[10]

Notes

[1] Cf. Rideout et al., 2010, and Medienpädagogischer Forschungsverbund Südwest, 2010.
[2] Cf. Medienpädagogischer Forschungsverbund Südwest: JIM 2010, .
[3] Cf. Rowlands et al., 2008, and Nicholas et al., 2011.
[4] Nicholas, 2011, p. 30.
[5] Cf. Head & Eisenberg 2009 and 2010.
[6] Head & Eisenberg, 2010, p. 1.
[7] Cf. Head & Eisenberg 2010.
[8] Cf. Ferry et al., 2010.
[9] Ferry, 2010, p. 10.
[10] Palfrey & Gasser, 2008, p. 244.

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