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

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Overview

- The media worlds of the so-called ‘Digital Natives’
- How they search for information
- Room for improvement: ‘Digital Natives’ and libraries
The media worlds of adolescents and young adults

Media use, importance and image of media:
Selected results from youth media research studies
Media use, by age

Source: Kaiser Family Foundation: Generation M². Media in the Lives of 8- to 18-Year-Olds. 2010. n= 2,002 3rd–12th grade students, ages 8–18
Media use:
Comparison age groups 14+ and 14- to 29-year-olds

Time spent per day (hours)

- Total media exposure 14-year-olds and older
- Total media exposure 14- to 29-year-olds

- until 1980: 3 types of media (TV, radio, newspaper)
- since 1980: 6 types of media
- since 1985: 7 types of media
- since 2000: 8 types of media incl. Internet

Time spent with each medium per day (minutes):
Comparison age groups 14+ and 14- to 29-year-olds

Characteristic of media use by young people: media multitasking

n= 2,002 3rd–12th grade students, ages 8–18
Nevertheless:
media are not the most important part of young people’s lives

At the moment, (very) important to me are/is …

<table>
<thead>
<tr>
<th></th>
<th>Very important</th>
<th>Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends</td>
<td>79</td>
<td>19</td>
</tr>
<tr>
<td>Family</td>
<td>72</td>
<td>24</td>
</tr>
<tr>
<td>Good school grades</td>
<td>51</td>
<td>42</td>
</tr>
<tr>
<td>Internet access</td>
<td>50</td>
<td>36</td>
</tr>
<tr>
<td>Personal computer</td>
<td>45</td>
<td>31</td>
</tr>
<tr>
<td>Sports</td>
<td>38</td>
<td>37</td>
</tr>
<tr>
<td>Having a pet</td>
<td>38</td>
<td>25</td>
</tr>
<tr>
<td>Fashionable mobile phone</td>
<td>21</td>
<td>37</td>
</tr>
</tbody>
</table>

Basis: n=737, 10-18 years, percentages

What types of media would you miss and take with you on a deserted island?

Percentages, comparison over time

<table>
<thead>
<tr>
<th>I would (strongly) miss …</th>
<th>I would take the following medium with me</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>Newspaper</td>
<td>32</td>
</tr>
<tr>
<td>Radio</td>
<td>56</td>
</tr>
<tr>
<td>TV</td>
<td>47</td>
</tr>
<tr>
<td>Internet</td>
<td>72</td>
</tr>
</tbody>
</table>

Basis: n=4.503, 14-29 years

Activities on the web:
Comparison 14- to 29-year-olds and total population

At least once a week, percentages

- Video/timeshift television: Total 8%, 14-19 years 18%
- RSS-feeds/newsfeeds: Total 11%, 14-19 years 21%
- Soundfiles from the Internet: Total 11%, 14-19 years 38%
- Listening to live radio on the Internet: Total 12%, 14-19 years 11%
- Online games: Total 13%, 14-19 years 28%
- Downloading data files: Total 18%, 14-19 years 32%
- Discussion forums, newsgroups, chats: Total 19%, 14-19 years 63%
- Instant messaging: Total 29%, 14-19 years 81%
- Using online-communities: Total 32%, 14-19 years 79%
- Using search engines: Total 83%, 14-19 years 96%
- Sending and receiving emails: Total 84%, 14-19 years 90%

Basis: n=1.252, German speaking Internet users 14+
Pre-teens and adolescents are very self-confident about their computer literacy

By age, percentages

<table>
<thead>
<tr>
<th></th>
<th>Adolescents total (n=737)</th>
<th>10–12 year-olds (n=237)</th>
<th>13–15 year-olds (n=235)</th>
<th>16–18 year-olds (n=265)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Father</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>just as good as/better than the father</td>
<td>18</td>
<td>131</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>not as good as the father</td>
<td>43</td>
<td>69</td>
<td>39</td>
<td>23</td>
</tr>
<tr>
<td><strong>Mother</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>just as good as/better than the mother</td>
<td>19</td>
<td>29</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>not as good as the mother</td>
<td>20</td>
<td>40</td>
<td>16</td>
<td>6</td>
</tr>
<tr>
<td><strong>Teacher</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>just as good as/better than the teacher</td>
<td>28</td>
<td>22</td>
<td>37</td>
<td>26</td>
</tr>
<tr>
<td>not as good as the teacher</td>
<td>24</td>
<td>47</td>
<td>19</td>
<td>7</td>
</tr>
</tbody>
</table>

In a nutshell

• Young people spend a lot of time with media – but friends and family rank first in their priorities

• They use traditional media (TV, radio, print media) – but in a different way than former media generations (multitasking, media convergence)

• They appreciate and use the web for communication purposes – the Internet and web 2.0 are extensively used to network and socialize

• They think their computer and information literacy skills are pretty good – and do not consider teachers (or librarians) as experts or role models
How they search for information

Mapping the information seeking behaviour of ‘Digital Natives’: an academic form of moral panic?
Characteristics of a new media generation?

Diana Oblinger & James Oblinger: Educating the Net Generation (2005):

- **Visual-spatial skills:**
  they can integrate the virtual and physical

- **Ability to read visual images:**
  they are intuitive visual communicators

- **Inductive discovery:**
  they learn better through discovery than by being told

- **Attentional deployment:**
  they are able to shift their attention rapidly from one task to another

- **Fast response time:**
  they are able to respond quickly and expect rapid responses in return
Main results of the report “Information Behaviour of the Researcher of the Future”:

- **Information literacy of young people has not improved** with the widening access to, and greater familiarity with, information technology.

- Their speed of web searching means that **little time is spent in evaluating information**, either for relevance, accuracy, or authority.

- They have a **poor understanding of their information needs** and thus find it difficult to develop effective search strategies as a result.

- 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.

Project Information Literacy (PIL):

22-item online survey to students enrolled at 25 U.S. colleges and universities
n=8,353 (largest scholarly survey analysis of information literacy so far)

Research questions:

• How do students evaluate information and use information once they have found it?
• What difficulties do students encounter with course-related and everyday life research from start to finish?

Main results:

• For many of today’s undergraduates, the idea of being able to conduct an exhaustive search is inconceivable. Information seems to be as limitless as the universe.

• The findings suggest students use an information-seeking and research strategy driven by efficiency and predictability.

• Students actively look for strategies on how to reduce the search options and the majority prefer the same search strategies, regardless of the topic or the information needed.
Main results:

• Evaluating information is a **collaborative process**:

![Figure 7: Asking for Help with Evaluation](image)

- The authors identify a gap between the “resources-focused” training that students receive from librarians and their ability to control and manage the resulting information overload.
Conclusions

What ‘Digital Natives’ search and what libraries offer: room for improvement
What ‘Digital Natives’ search and what libraries offer
“Digital Natives” prefer

... inductive discovery and are intuitive visual communicators

... to search and use information “just in time”

... a familiar and simplistic solution for their study needs (Google, Wikipedia …)

... to actively strategize how to reduce the search options of information resources

... to use Internet and Web 2.0

Their search behaviour is characterized by routine and effectiveness

Librarians tend

... to ignore that the meaning of learning and knowing has changed fundamentally

... to think that their users have a sophisticated understanding of information retrieval

... to offer complex information resources in the “deep web”

... to provide more online resources with even more content (repositories, databases …)

... to focus on traditional media

We think that competent search behaviour is characterized by thoroughness and information literacy

How to bridge the gap:
(Proactive) strategies to capture ‘Digital Natives’

Changing a library’s website from a static repository to a dynamic service point: a concept developed from Irvine Libraries, University of California

- ‘digital concierge’

- implementation of feedback mechanisms

- evaluation of web statistics

Goal: Making the use of a library’s resources and services in the research process more interactive, enjoyable, and rewarding.
(Proactive) strategies to capture ‘Digital Natives’

Find

Books, Articles, & More  Subject & Course Guides

- ANTPAC catalog
- Current Melvyl catalog
- e-Journals A-Z
- Databases A-Z

- Databases to get you started
- e-Books
- What’s new
- Articles by Citation

UC Irvine Survey

Undergrads - Tell us about life at UC Irvine and
Librarians encourage students to use the Databases to get
you started page when
beginning research.

New Online Tutorial

Here is a list of recommended starting points that will help you locate information in scholarly journals and other authoritative sources.

- **Academic Search Complete** *(Scholarly and news articles on a variety of topics)*
- **Gale Virtual Reference Library** *(Background information on all topics)*
- **Web of Science** *(Science, medicine, and social science)*
- **JSTOR** *(Literature, humanities, arts, and science)*
- **PsycINFO** *(Psychology)*
- **AGI** *(Geology and related issues)*
- **CINAHL** *(Nursing and related issues)*
- **Google Scholar** *(Provides an easy way to search for scholarly literature in many disciplines)*
(Proactive) strategies to capture ‘Digital Natives’

A. Are you looking for information about how to request something through ILL?
   a. If you are affiliated with UCI (faculty, staff, student) click here
      i. Do you need help requesting an article?
         1. See ILL form for articles at
            http://ucelinks.edlib.org:8888/citation/sfx_local?rft.genre=article
         2. View a tutorial on using ILL to request articles
         3. Does this answer your question? If not
            a. Ask a Librarian
            b. Return to previous page
      ii. Do you need help requesting a book?
          1. See ILL form for books at
          2. View a tutorial on using ILL to request books
          3. Does this answer your question? If not
             a. Ask a Librarian
             b. Return to previous page
      iii. Do you need help putting in a request for something else?
           1. Ask a Librarian
           2. Return to previous page
      iv. Do you need to request something from the Grunigen Medical Library to be delivered to the Main Campus?
          1. See web pages about “Transfers” at
             http://www.lib.uci.edu/services/ill/interlibrary-loan.html
          2. Does this answer your question? If not
             a. Ask a Librarian
             b. Return to previous page

In a nutshell

John Palfrey & Urs 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.« (p. 244)
Thank you for attention!
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Sources (selection):


