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The wave of the future: librarians teaching for 21st century skills

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The wave of the future: librarians teaching for 21st century skills

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Outline

- The Information Age and the knowledge economy
- Skills for the 21st century
- Implications for Librarians
  - Teaching role
  - Skills for librarians as teachers and knowledge workers
  - Partnerships
Information Age

- Information Age characterised by the rapid growth of knowledge, greatly improved access to that knowledge and widespread application of that knowledge to economic purposes…

- “technology and the knowledge on which it is based are the central motors of economic growth” (OCLC Environmental Scan, 2003)
Information Age indicators

- Information explosion
- Convergence of computers and communications technologies
- Rise of the Internet and the WWW
Evolution of the Internet

- Incorporating previously divergent media (audio, video, radio and television)
- Blurring distinctions between
  - opinion and evidence,
  - information and entertainment
  - data and knowledge
Impacts of the Internet

- Enormous impacts on the way we work, learn and play
- 70% of Americans use the Internet
- Increases productivity at work
- E-commerce
- Source of information and “Always on”
- Education will be transformed
Children’s internet use

**Media Trends**
Over 65% of American children aged 2 to 17 now use the internet up from 41% in 2000

**Media Trade-Offs**
Kids who use the Internet spend 37% less time watching television-and 16% more time with friends and family. Teenagers (aged 13 to 17) in 2002 spend more time each day with digital media (3.5 hours) than they did watching television (3.1 hours)

Activities that kids aged 9 to 17 engage in online at least weekly

- **Gaming**: 2002 (30), 2000 (40)
- **Communicating**: 2002 (40), 2000 (30)
- **Learning**: 2002 (50), 2000 (40)
- **Exploring**: 2002 (60), 2000 (20)

NCREL & METRI Group, 2003
Household Internet and Computer Access

Source: ABS, Household Use of Information Technology, 2003
Services Accessed via the Internet

Source: ABS, Household Use of Information Technology, 2003
Australian businesses using IT

Source: ABS, Business Use of Information Technology, Australia, 2003
Growth of knowledge workers

Knowledge workers as a proportion of employed persons

Source: ABS, Labour Force Australia, 2004
The knowledge economy

- Increasing investment in information & communication technologies
- Increasingly skilled workforce
- Improved productivity
- High rates of innovation and change in products, processes and organisational structures
21st century skills

- The knowledge economy and society has a greater “demand for highly-skilled workers with an increased emphasis on cognitive skills, the development of ideas and life-long learning” (ABS, 2002)
Lifelong learning

- Today’s advanced knowledge is tomorrow’s ignorance (Drucker, 1997)
- The Illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn (Toffler, 1971)
Characteristics of lifelong learners

- **Learning to do** (acquiring and applying skills, including life skills)
- **Learning to be** (promoting creativity and personal fulfilment)
- **Learning to know** (an approach to learning that is flexible, critical and capable)
- **Learning to live together** (exercising tolerance, understanding and mutual respect)

(Delors, 1996)
What are the skills people need for today and tomorrow?

How can we best prepare students to succeed in the 21st century?
“There is a profound gap between the knowledge and skills most students learn in school and the knowledge and skills they need in typical 21\textsuperscript{st} century communities and workplaces” (Partnership for 21\textsuperscript{st} Century Skills, 2003)
Key elements for 21st century learning

- Expand competencies in core subjects
- Emphasize learning skills
- Use 21st century tools
- Teach and learn in a 21st century context
- Teach and learn 21st century content
- Use 21st century assessments
Some challenges ahead

- Increased demand and raised expectations for education and training opportunities
- Greater inequality in terms of access to education for people with high and low skills
Uncertainty in a changing world

- Backlash against technology driven change
- Feelings of uncertainty and insecurity about one’s employment
- Feelings of de-valuing of traditional skills
- Information anxiety due to information overload
- Digital divide – Information rich and information poor
Implications for libraries

- Libraries are being challenged “to show that they can make a difference, that they add value, that they are central to educational and civic missions” OCLC

Environmental Scan 2003
Make libraries easier to use

- The Internet and the new information world are setting new standards for ease of access – e.g. Google and Amazon
- “Librarians cannot change user behaviour and so need to meet the user”
- “Make it easier to use and access library resources”
Supporting learning

- “As the sheer quantity of information increases … it becomes crucially important to be able to evaluate the quality of what you see, hear and read. Now you must consciously reject much more than you accept” (Karl Albrecht)

- “The challenge is getting students to move from infobesity to infodieting” (James Morris)
Roles Librarians play

- Transforming
- Teaching
- Guiding
- Interpreting
- Facilitating
- Selling, promoting, marketing
More roles....

- Agents
- Diplomats
- Change Managers
- Staff development and training
- Innovators
- More than knowledge navigators
Different views....

- “while librarians are trained in information retrieval as part of their graduate education, the idea that this knowledge qualifies them to intrude into classrooms and share teaching duties in literature or biology or mathematics or any other subject discipline is simply illogical” Asher
- “teacher librarian is more likely to have an impact if he or she is certified, that is qualified in teacher librarianship, trained in collaboration with classroom colleagues, actually collaborates as an equal teaching partner “ Haycock
- “Teacher librarians see themselves as teachers first and librarians second” Lupton
Skills for Librarians as knowledge workers

- Communication
- Teamwork
- Problem solving
- Self-management
- Technology
- Continuous learning
- Initiative and enterprise
- Enthusiasm and adaptability
The Profession

- Demographic composition of the profession
- Looming age-related workforce crisis
- Succession planning
- Skills shortage in the profession
LIBRARY WORKFORCE AGE PROFILE

<table>
<thead>
<tr>
<th>Age Range</th>
<th>LIB TECHS</th>
<th>LIBRARIANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 35</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>35 to 44</td>
<td>30%</td>
<td>25%</td>
</tr>
<tr>
<td>45 to 54</td>
<td>35%</td>
<td>40%</td>
</tr>
<tr>
<td>55 and over</td>
<td>15%</td>
<td>10%</td>
</tr>
</tbody>
</table>
QLD Dept of Education

![Bar chart showing age distribution of Teachers and Librarians in the QLD Dept of Education. The chart is divided into age ranges: <20, 20 to <25, 25 to <30, 30 to <35, 35 to <40, 40 to <45, 45 to <50, 50 to <55, 55 to <60, 60 to <65, and 65 or more. The data for Senior Teacher - Librarians and Teacher - Librarians are presented in the chart.](chart.png)
OCLC Environmental Scan: key points

- “A lot of staff will retire soon but the upside to this is being able to hire staff more comfortable with e-material and virtual services”
- “We are well aware of trends and issues but many staff are not truly willing to change the ways they do things”
Juggling Act

- *Technolust* amongst School or University Managers
- Digital Collections
- Twilight Zone
- Balancing the old and the new
Partnerships

- Information Literacy as an integral part of the whole education process
- Shared responsibility
- Collaboration between all involved in the educational process
Successful information literacy programs focus on designing learning experiences that require use of information skills

Christine Bruce
Ownership of IL

- Moving from teacher centred to student centred learning
- From *Sage on the Stage* to *Guide on the Side*
- Librarians as partners in curriculum design
- School and University Management attitudes
- Expectations of both academics/teachers and librarians
Carpe diem

“sometimes we ignore the need to go forward because it is so safe and comfy right where we are” Lucy Lettis
Discussion