

*Information Services*  
*Information Services papers*

---

Bond University

Year 2004

---

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

Gulcin Cribb\*

Wendy Abbott†

\*Bond University, [gulcin.cribb@ozyegin.edu.tr](mailto:gulcin.cribb@ozyegin.edu.tr)

†Bond University, [wendy\\_abbott@bond.edu.au](mailto:wendy_abbott@bond.edu.au)

This paper is posted at [ePublications@bond](mailto:ePublications@bond).

[http://epublications.bond.edu.au/library\\_pubs/2](http://epublications.bond.edu.au/library_pubs/2)

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

Gulcin Cribb

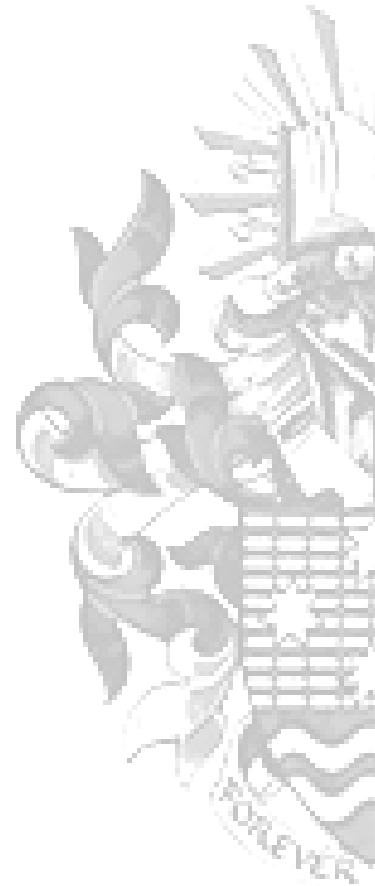
Wendy Abbott

Bond University Library



# Outline

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

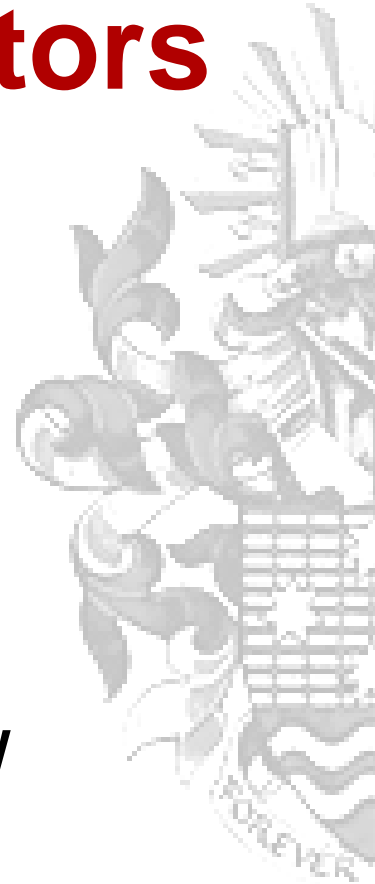


# Information Age

- ◆ 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)

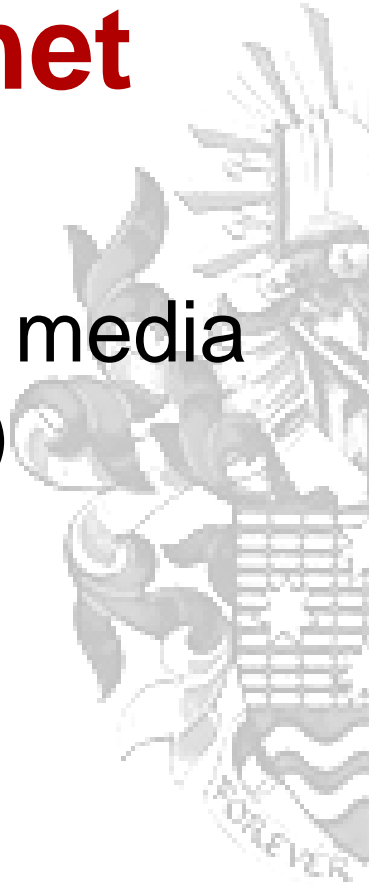
# Information Age indicators

- ◆ 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

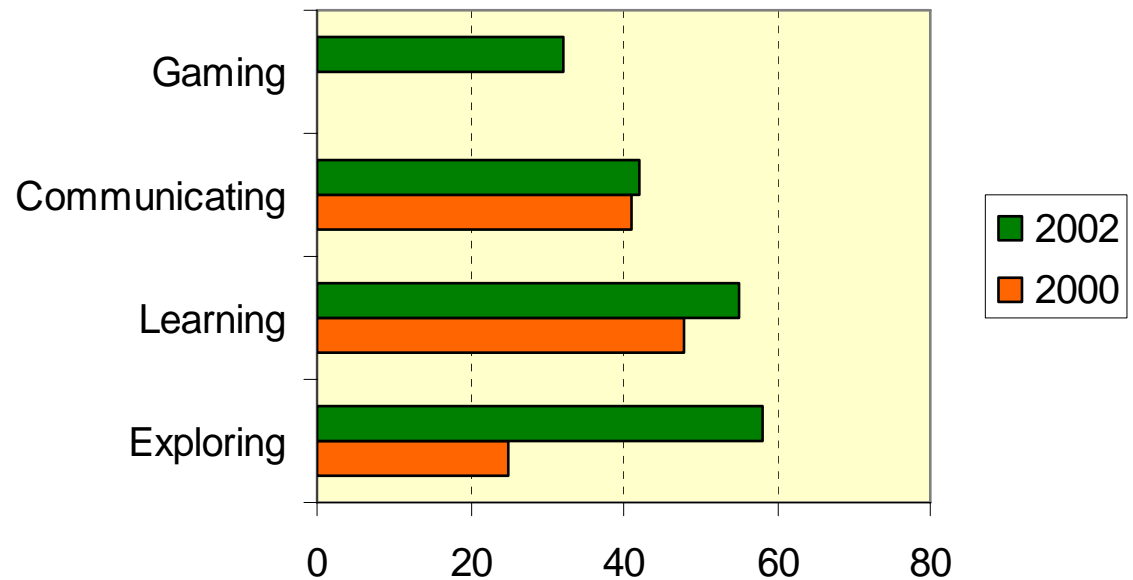
## Media Trends

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

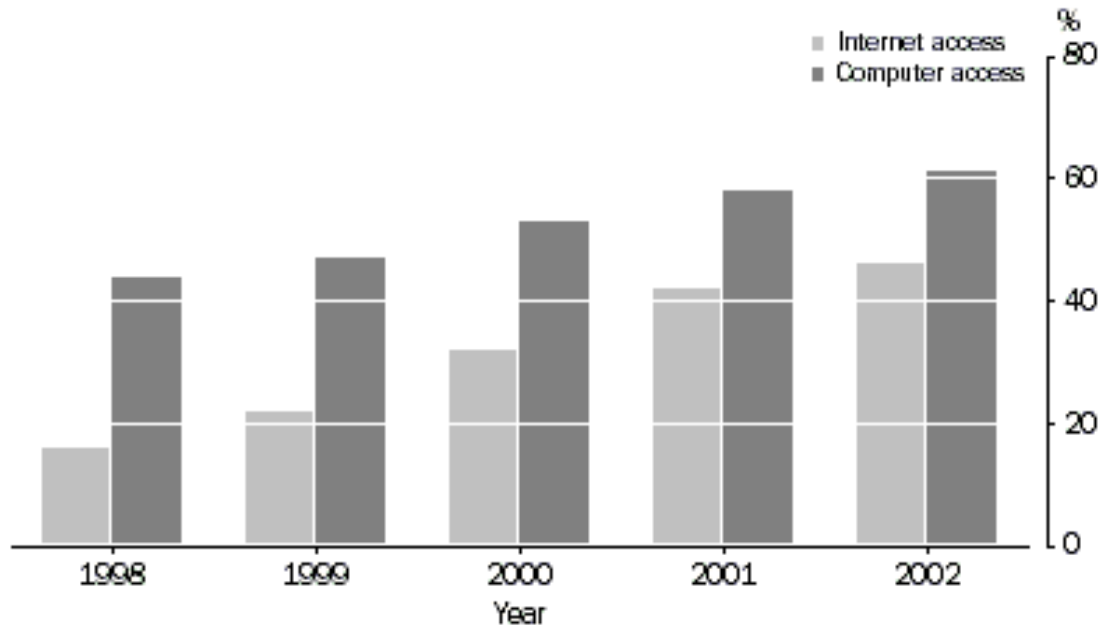
## Media Trade-Offs

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)

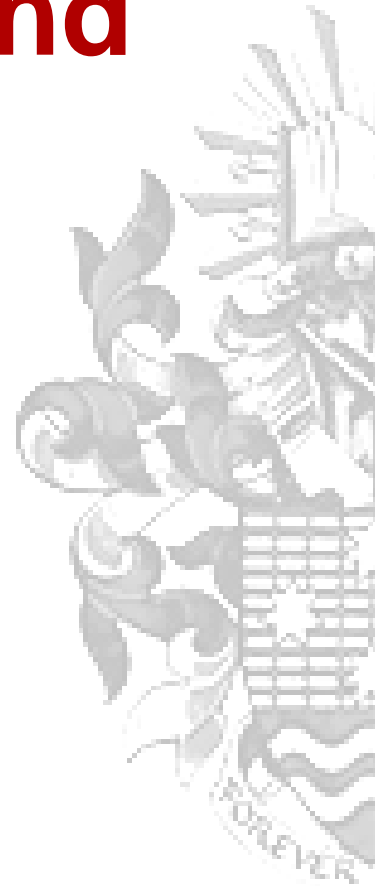
## Activities that kids aged 9 to 17 engage in online at least weekly



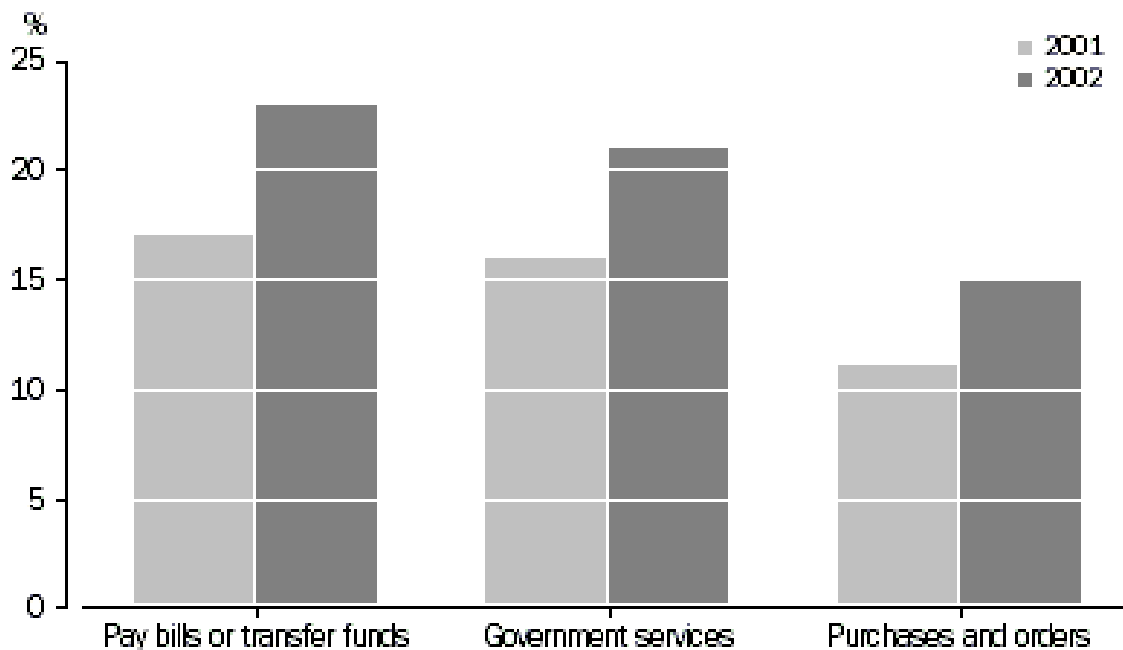
# Household Internet and Computer Access



Source: ABS, Household Use of Information Technology, 2003



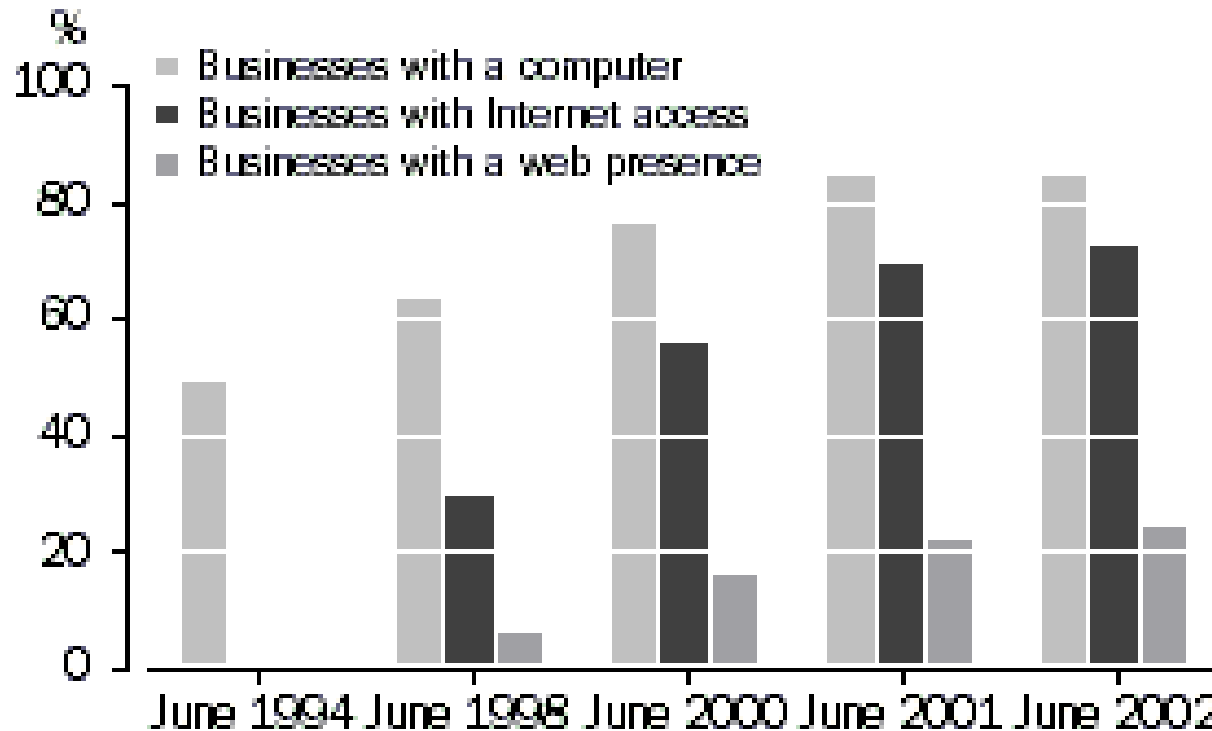
# Services Accessed via the Internet



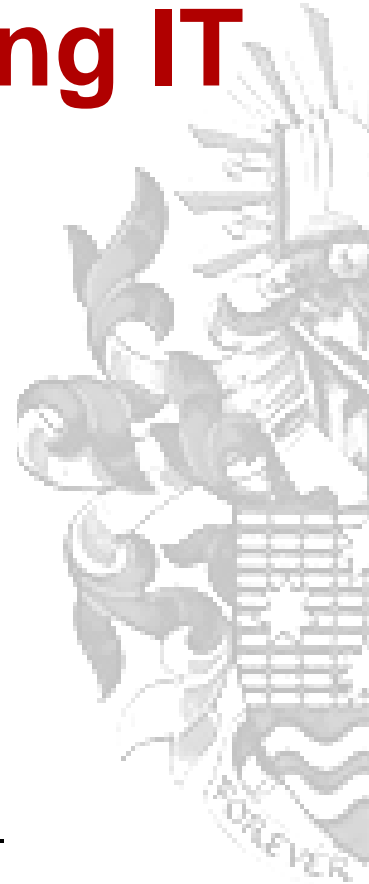
Source: ABS, Household Use of Information Technology, 2003



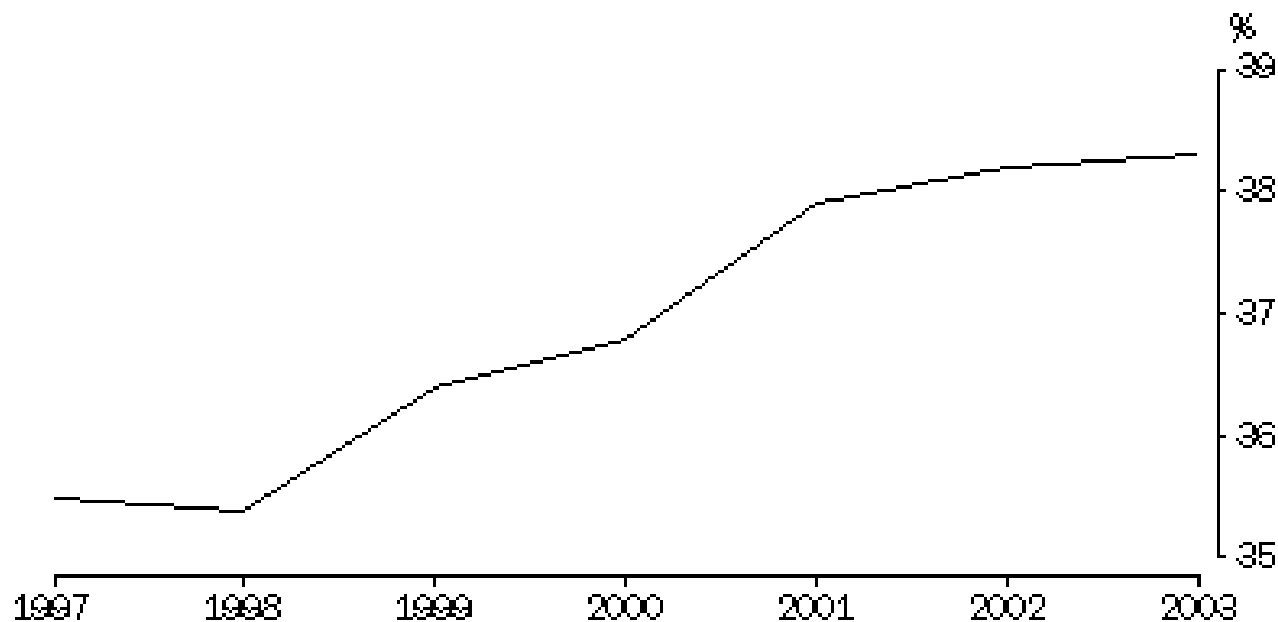
# Australian businesses using IT



Source: ABS, Business Use of Information Technology, Australia, 2003



# Growth of knowledge workers



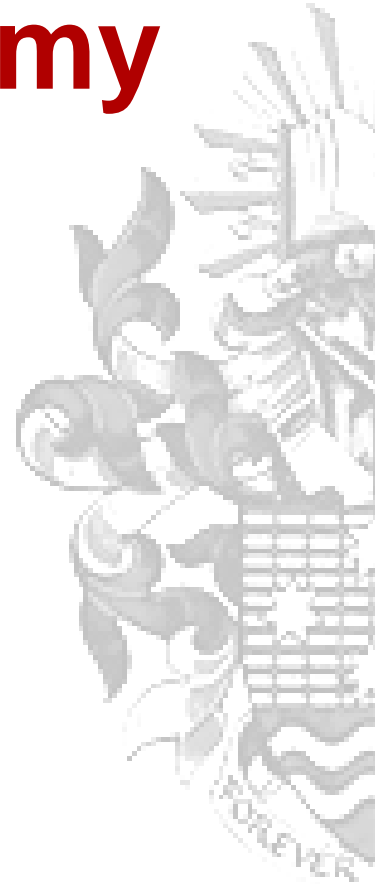
(a) There is a break in the Labour Force series in February 2000 (see Labour Force Survey Notes in STATISTICAL NOTES).

## Knowledge workers as a proportion of employed persons

Source: ABS, Labour Force Australia, 2004

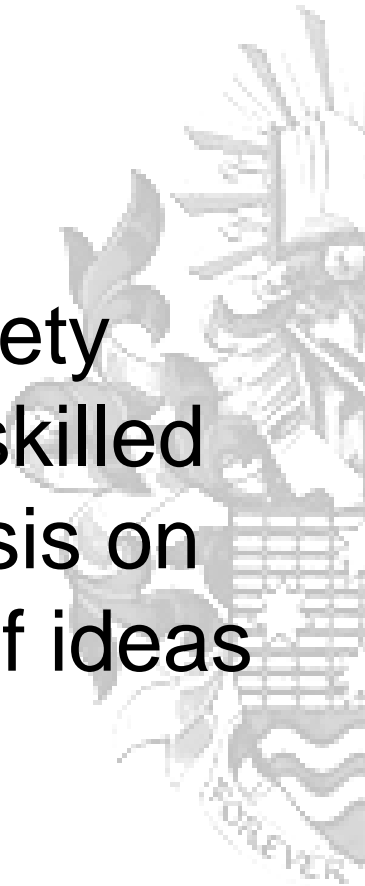
# The knowledge economy

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



# 21<sup>st</sup> 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 21<sup>st</sup> 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 21<sup>st</sup> century?

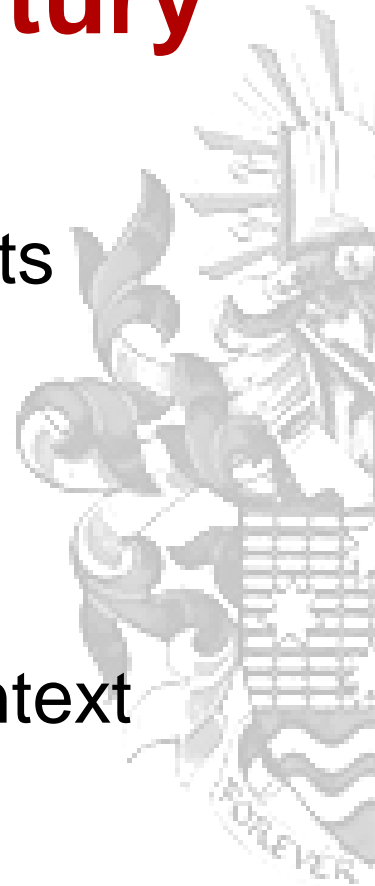


- ◆ “There is a profound gap between the knowledge and skills most students learn in school and the knowledge and skills they need in typical 21<sup>st</sup> century communities and workplaces” (Partnership for 21<sup>st</sup> Century Skills, 2003)



# Key elements for 21<sup>st</sup> century learning

- ◆ Expand competencies in core subjects
- ◆ Emphasize learning skills
- ◆ Use 21<sup>st</sup> century tools
- ◆ Teach and learn in a 21<sup>st</sup> century context
- ◆ Teach and learn 21<sup>st</sup> century content
- ◆ Use 21<sup>st</sup> 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”*

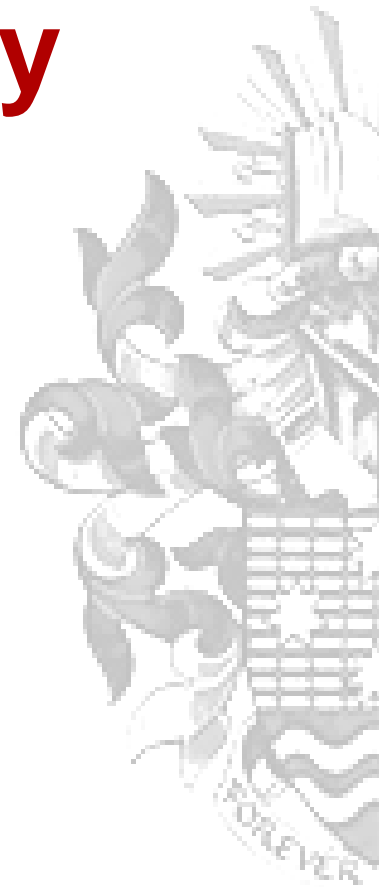
# Supporting learning

- ◆ “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)



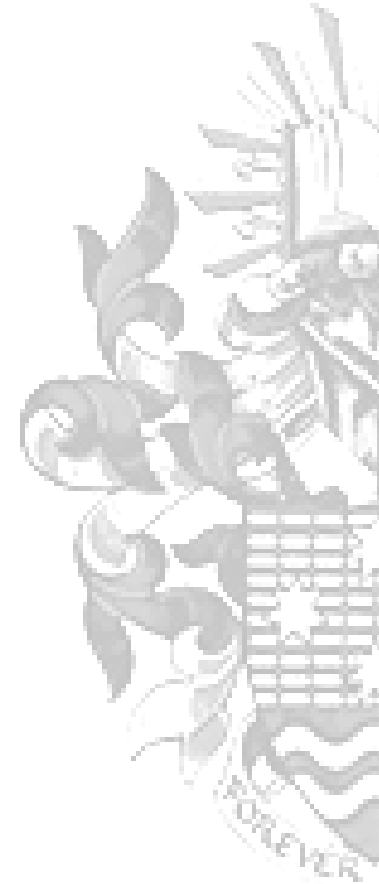
# Roles Librarians play

- ◆ Transforming
- ◆ Teaching
- ◆ Guiding
- ◆ Interpreting
- ◆ Facilitating
- ◆ Selling, promoting, marketing



# More roles.....

- ◆ Agents
- ◆ Diplomats
- ◆ Change Managers
- ◆ Staff development and training
- ◆ Innovators
- ◆ More than knowledge navigators

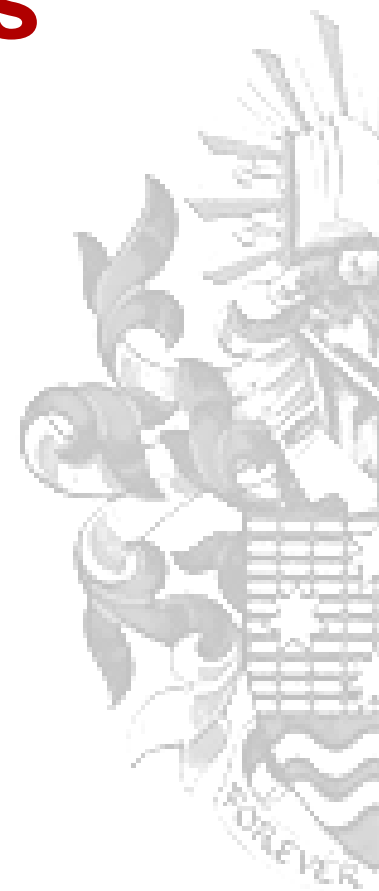


# Different views....

- ◆ *“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



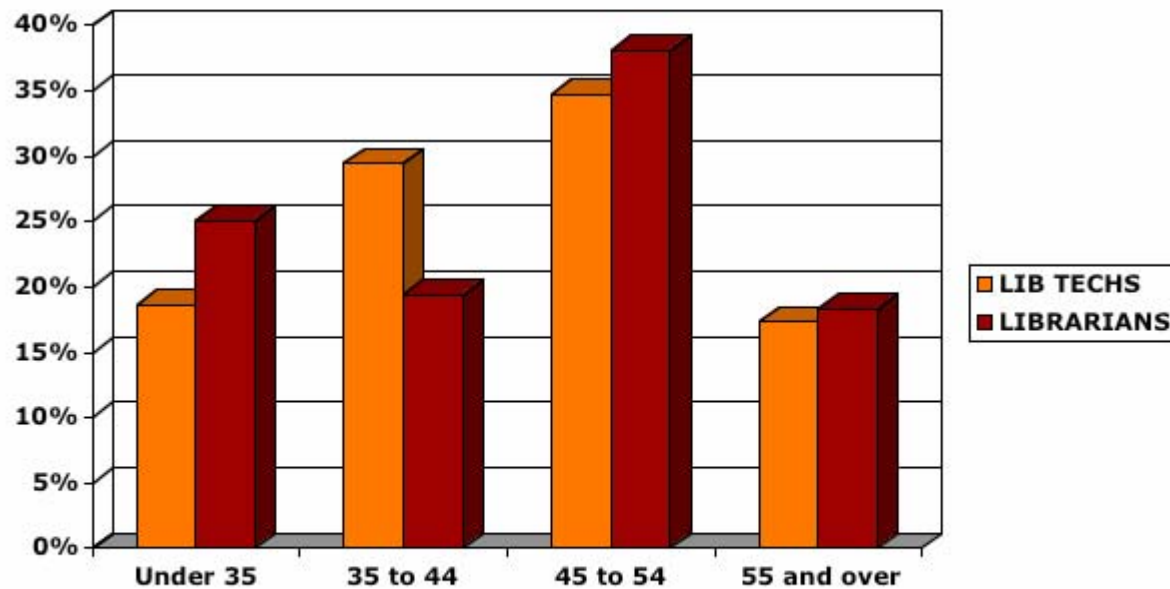
# The Profession

- ◆ Demographic composition of the profession
- ◆ Looming age-related workforce crisis
- ◆ Succession planning
- ◆ Skills shortage in the profession

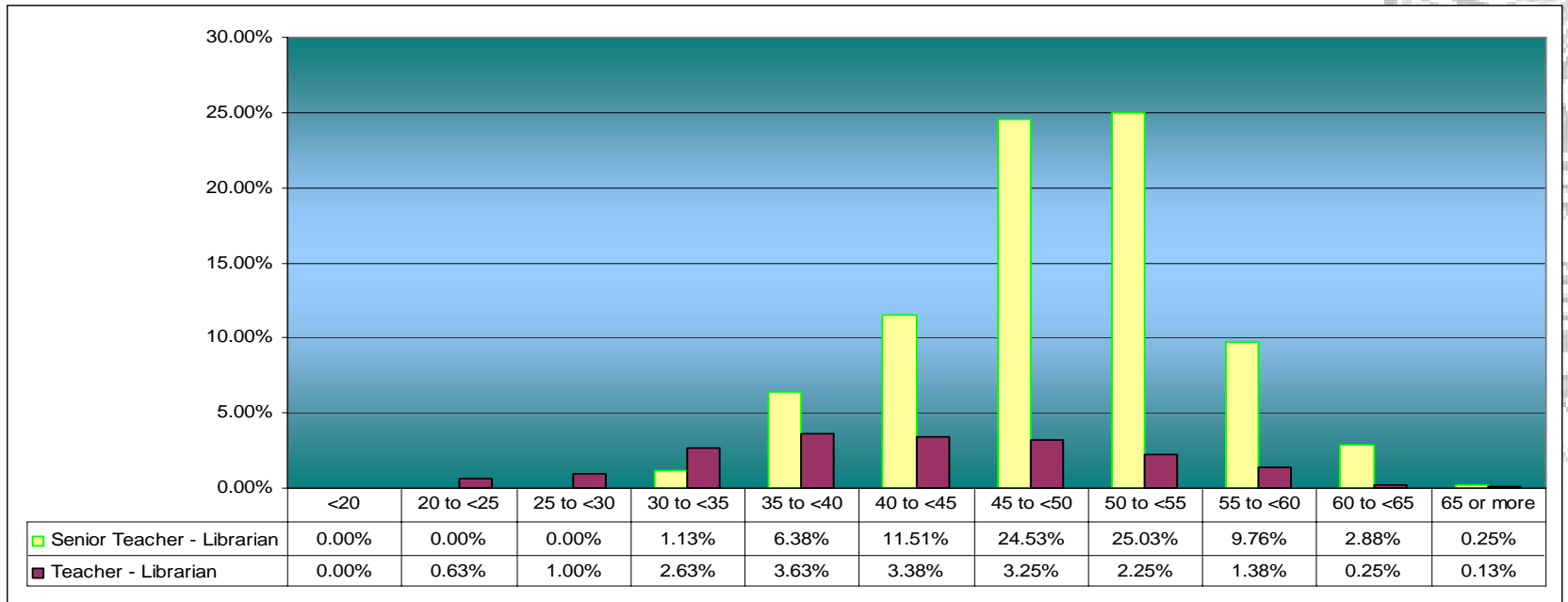
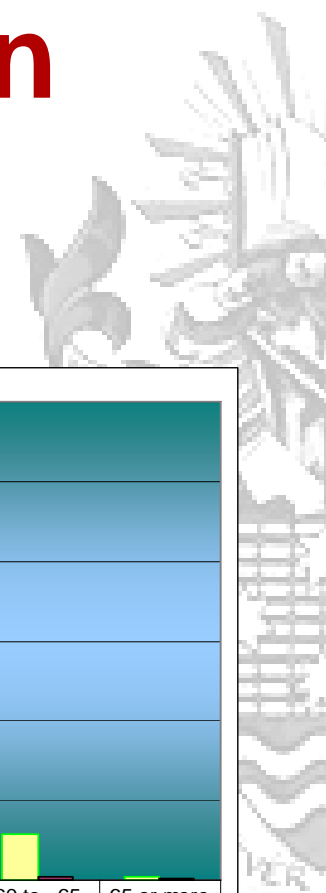


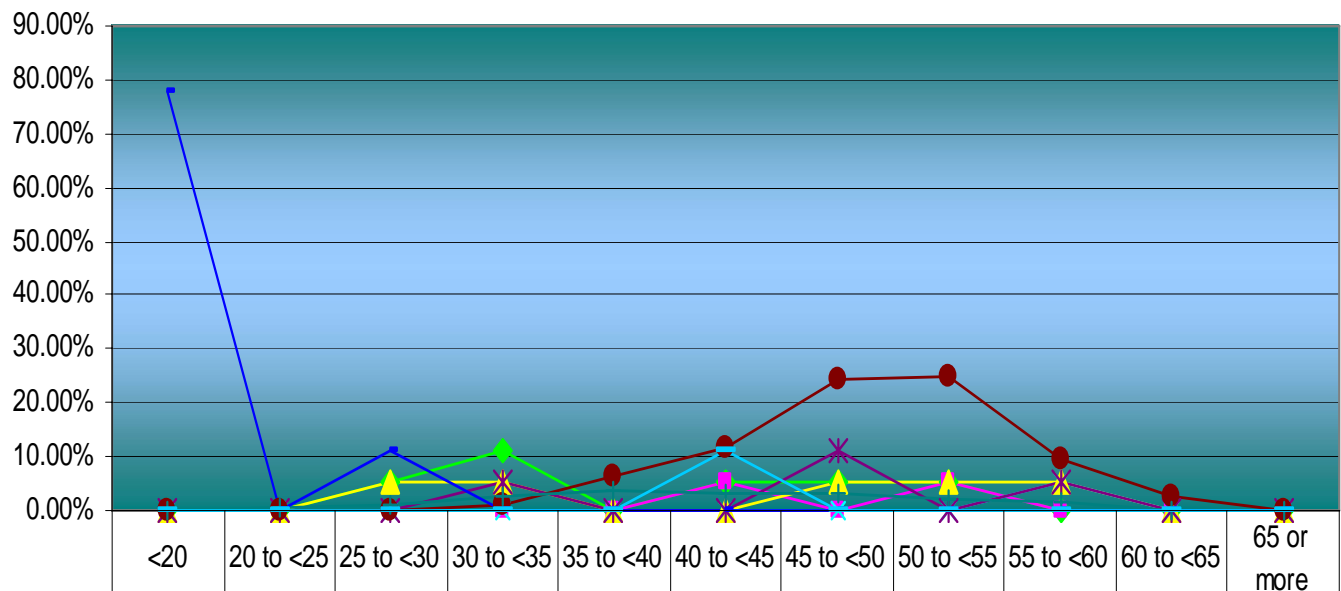


## LIBRARY WORKFORCE AGE PROFILE



# QLD Dept of Education





◆ Librarian (Public Service)	0.00%	0.00%	5.56%	11.11%	0.00%	5.56%	5.56%	5.56%	0.00%	0.00%	0.00%
■ Library Assistant	0.00%	0.00%	0.00%	0.00%	0.00%	5.56%	0.00%	5.56%	0.00%	0.00%	0.00%
▲ Library Technician	0.00%	0.00%	5.56%	5.56%	0.00%	0.00%	5.56%	5.56%	5.56%	0.00%	0.00%
✧ Principal Librarian (Public Service)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.56%	0.00%	0.00%
✱ Senior Librarian (Public Service)	0.00%	0.00%	0.00%	5.56%	0.00%	0.00%	11.11%	0.00%	5.56%	0.00%	0.00%
● Senior Teacher - Librarian	0.00%	0.00%	0.00%	1.13%	6.38%	11.51%	24.53%	25.03%	9.76%	2.88%	0.25%
+ Teacher - Librarian	0.00%	0.63%	1.00%	2.63%	3.63%	3.38%	3.25%	2.25%	1.38%	0.25%	0.13%

# 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”



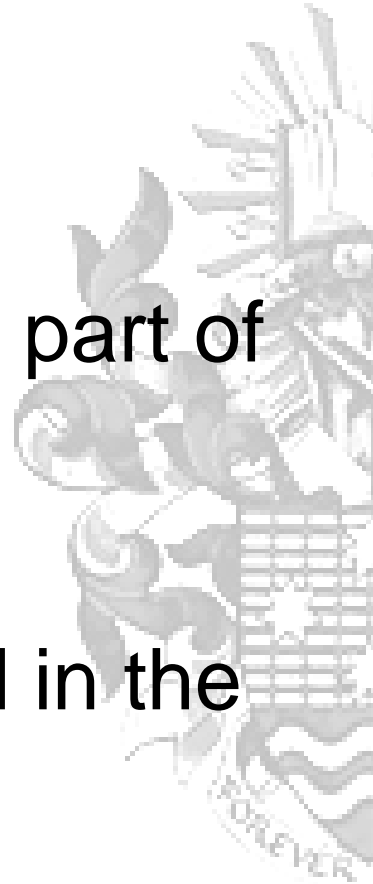
# Juggling Act

- ◆ *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

