



*Smart
information
use*



**the evolution of a new
generation of information
citizens?**

Gayner Eyre and Lyn Hay

Celtic Conference 2006



Introduction

The aim of this paper is to report on the results of a twelve month study investigating *Smart Information Use* by:

- ❑ Exploring the concept of Smart Information Use
- ❑ Outlining developments in frontier technologies and their impact
- ❑ Discussing the characteristics of a Smart Information Organisation
- ❑ Suggesting some of the attributes of a Smart Information Users
- ❑ Describing New Information Citizens

Why *Smart* Information



Howard Rheingold's *Smartmobs*

Smart mobs consist of people who are able to act in concert even if they don't know each other. The people who make up smart mobs cooperate in ways never before possible because they carry devices that possess both communication and computing capabilities (Rheingold, 2002:xii)

Australian Research Council (ARC)

Smart Information Use [provides] huge opportunities to improve the performance of key Australian industries (ARC, 2004: 6)



The context: Starting Points

The researchers, noted that a number of interesting factors emerged virtually simultaneously:

- ❑ Developments in *Frontier Technologies*
- ❑ The perceived impact of these technologies on interpersonal communication, societies and cultures
- ❑ Interest, by the Australian Government, in the potential of these technologies, via *information citizens*, on the National economy
- ❑ The increasing use of **E** and **M** technologies in the learning process
- ❑ Increasing published theory and models of information literacy and information behaviour



Methodology for Phase One

- ❑ Review of Literature
- ❑ Focus group with leading Australian professionals in Teacher Librarianship
- ❑ Email and telephone interviews with international panel

SPONSORS: Australian School Library Association (ASLA) and Charles Sturt University Centre for Research and Graduate Training & Faculty of Science & Agriculture

International Panel

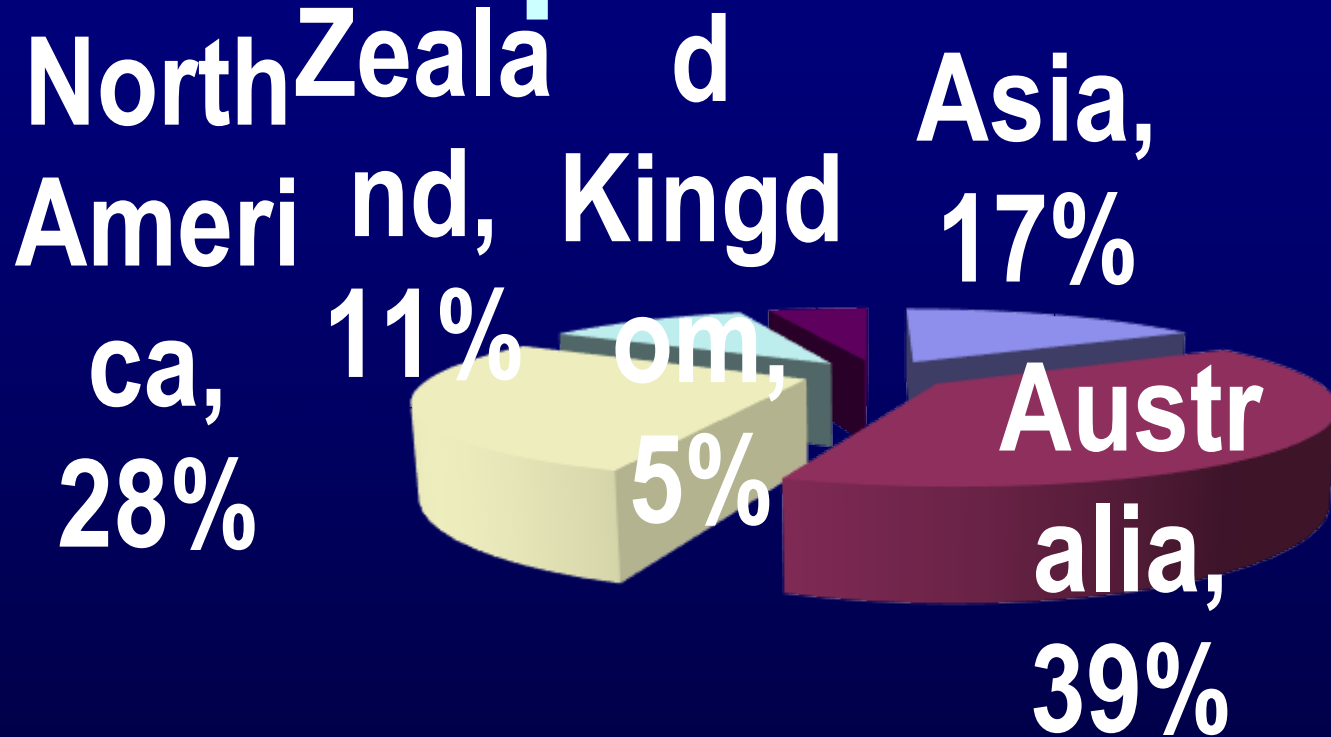


Targeted expertise across the areas of:

- information literacy
- working with frontier technologies
- effective ICT use in schools/organisations
- social/ICT commentators & authors
- leading practitioners in TLship, ICT in education, both primary & secondary
- prominent academics, eg. digital reference, CSCW, information behaviour
- district and school administration
- online learning & teaching, eg. WebCT founder
- research & consultancy experience

Geographic Representation

New Zealand





Brave New 'Smart' World?

- Information in places: linked to location
- Smart rooms: environments that sense inhabitants and respond to them
- Digital cities: information capabilities to urban places
- Sentient objects: adding information to physical objects
- Tangible bits: manipulating the virtual world by manipulating physical objects
- Wearable computers: sensing, computing and communicating gear worn as clothing
(Rheingold p84-5)

Frontier Technologies

The smart information user's toolkit



- a range of mobile hardware identified as forming the technology suite of a SI user
 - mobile phones, handheld PDAs, laptops, tablet PCs
- convenient & wearable storage devices, eg. iPods, 'memory sticks', 'thumb' drives
- digital cameras, both still & video, viewed as a 'basic' technology for personal use



Software & Services

- Internet-based to support informational, educational & recreational needs, eg. e-learning, e-banking, e-shopping, all saving time, money & convenient
- speech recognition software
- environmental technologies to monitor external environment, keep in contact with the 'smart home', monitor health
- software for security & file management



Characteristics of a Smart Information Organisation

- Infrastructure in which
technology and information systems [provide] an efficient & effective interface between members of the organisation & its community or clients (CFC)
- Facilitates seamless integration of ICTs
Where internal systems are frictionless (JT)
- A 'real time' organisation
With wireless network coverage, active communications systems and instant, perpetual internal and external communication is facilitated

*An organization is nothing
without its people... (RT)*



Human capital

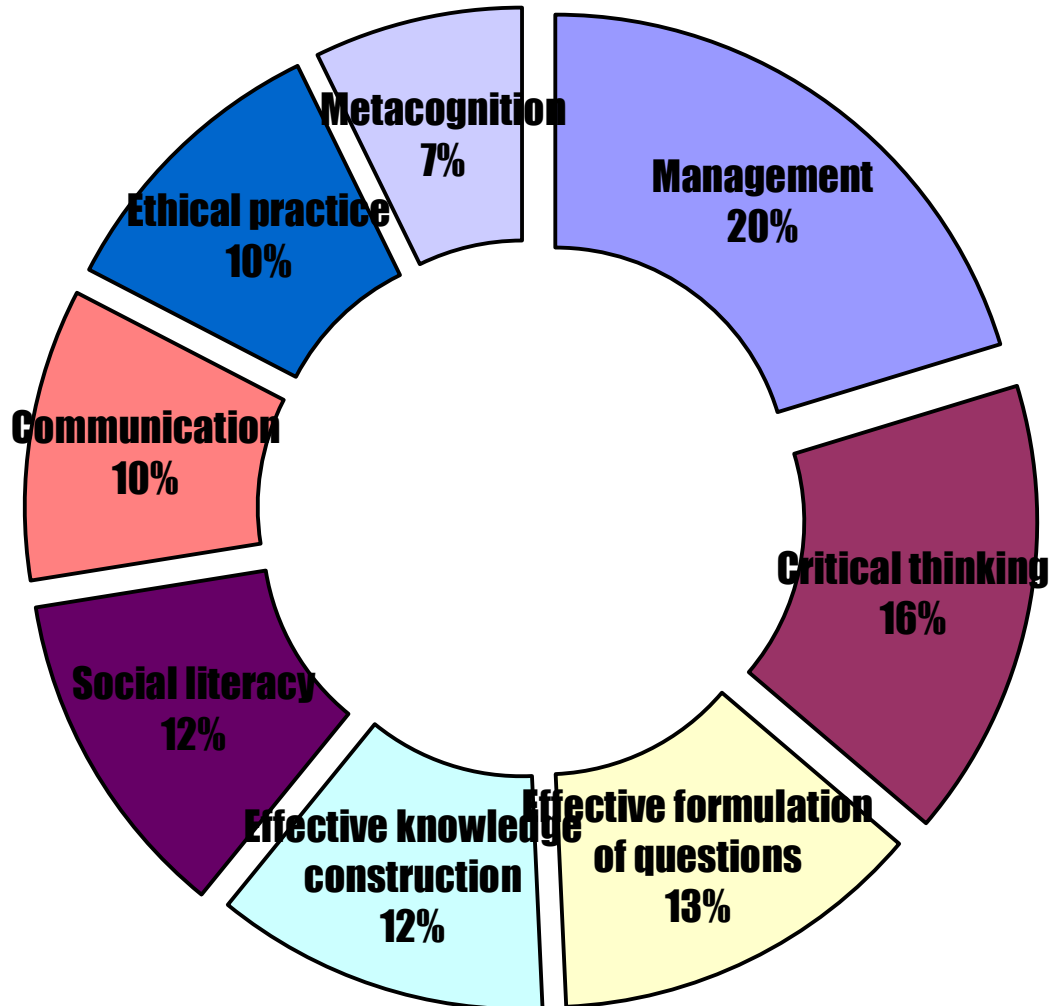
A Smart Information Organisation:

- ❑ realises and values human potential
- ❑ harnesses synergy of ‘connected’ individuals
- ❑ attracts, targets and maintains quality staff
- ❑ understands need for SIU leadership
- ❑ has designated people/positions to support SIU approach (3)

*Seeks applicants with an open attitude and aptitude
to change and learning (MT)*

Smart Information Users

Key characteristics of SIU identified by expert panel:





Eight traits of an SIU

1. Ability to formulate questions

- ❑ Ability to pinpoint the exact information need
- ❑ Having a defined purpose / goal / need
- ❑ Defining and refining topic area
- ❑ Formulating and employing effective and logical and workable search strategies

2. Developed critical thinking skills

- ❑ Evaluation skills:
- ❑ Sufficient knowledge of hardware and software coupled with learning skills to make informed choices of which ICT / programs to use
- ❑ Ability to modify ICTs creatively and to modify if necessary
- ❑ Ability to understand ICTs in the context of own environment

Eight traits of an SIU



3. Constructs Knowledge

- Ability to use multiple sources and formats to find, recognise and use relevant information to solve a problem
- Ability to use a range of intellectual scaffolds to engage with information in meaningful ways
- The cognitive capacity to construct new meaning from the information found

4. Communicates effectively

5. Has knowledge and appreciation of ethical practice.

6. Employs Metacognition



Eight traits of an SIU

7. Socially Literate

- Communicates and collaborates with ease
- Is able to engage with others
- Has the ability to work as part of a team
- Is able to identify and liaise with experts
- Identifies when input from others is necessary
- Is considerate of others

8. Able to manage:

- a suite of technologies and information sources to achieve their aims
- time, files and projects



The new information citizen

- is more adept with technology than ever before. In fact technology becomes an extension of themselves
- is interested in (even fascinated by) the increasing convergence of technology tools
- is able to maximise the convergence of information- & technology-based skills & understandings between their personal and working lives
- capitalises on these skills at home and at work to achieve success personally and for the good of society

“I would make no separation between the blurred boundaries of a personal or working life. Just categorise functions with personal or working life attributes” (KE)