Expanding Horizons Conference for 2000

Preparing our Students for Knowledge Work

Presented by
Professor Ron Johnston
4 September 2000

Australian Centre for Innovation (ACIIC)
Some Prospects for the ‘00s

- Individuals listed
- Real-time lie detection software
- Child entrepreneurs
- D-I-Y health care
- Molecular manufacture
- Intangible trade
DRI VERS OF
THE OO’s
The Knowledge Economy
Electronic Connectivity

INNOVATION

GLOBALISATION

KNOWLEDGE ECONOMY

CONNECTIVITY

Australian Centre for Innovation (ACIIC)
The Age of Knowledge

“It’s all about what you know and who wants it”

(Davos, 1998)
The Knowledge Economy

- Knowledge Intensification
- Knowledge Trade and Valuation
- Knowledge Growth
The Nature of Knowledge

Information ≠ Knowledge

- Information is digitisable
- Knowledge exists in intelligent systems
Paradoxes of Knowledge

- Using knowledge does not consume it.
- Transferring knowledge does not lose it.
- Knowledge is abundant, but the ability to use it is scarce.
- Producing knowledge resists organisation.
- Much of it walks out the door at the end of the day.
Knowledge Management Arrives

‘Silly me. I thought knowledge management meant it’s not what you know but who you know.’

Australian Centre for Innovation (ACII C)
The Emergence of the Knowledge Worker

primarily engaged in the manipulation of symbols

High technology industries

ICT Manufacturing & Services

Knowledge based industries

Australian Centre for Innovation (ACIIC)
Employment by Industry Categories, Australia, 1966-1994

Source: OECD International Sectoral Database.

Australian Centre for Innovation (ACIIC)
Employment by Firm Type, Australia 1985-1995

Source: BIE 1996, Small Business Brief, based on ABS data.
Fastest-growing jobs, 1996-2006

Percent Increase

- Desktop publisher: 74%
- Therapy assist.: 79%
- Personal/home aide: 85%
- Systems analyst: 103%
- Computer Engineer: 109%
- Database Manager: 118%
Changing Knowledge Work

“There is a shift from applying knowledge in a relatively stable environment to using and creating knowledge to comprehend and transform a rapidly changing environment” (Ron Johnston)
Knowledge Workers

- combine analysis with intuition
- recognise patterns
- work collaboratively
- communicate ‘deeply’
- are highly flexible
- are self-directed
- need high discretion
- work to a logic of improvisation
Knowledge work is...

- Complex
- Uncertain
- Ambiguous
- Unstructured
- Difficult to observe and measure
- High risk

Which requires individuals with...

- High pattern recognition skills
- Flexibility and tolerance for ambiguity
- Teams - skilled at collective "sense making"

And organisations that...

- Develop knowledge worker novices into experts
- Rapidly build effective virtual teams
- Build a culture of improvisation
- Balance creativity with risk management
Preparing the Knowledge Worker

- Lifelong learning
- learner-directed learning
- learning to learn
- contextualised learning
- customised learning
- transformative learning
- collaborative/cooperative learning
- just-in-time learning
Scenario
A ‘school room’ in 2010