Preparing our Students for Knowledge Work

MobileXchange, Education Forum

Presented by
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Australian Centre for Innovation (ACIIC)
The Age of Knowledge

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

(Davos, 1998)
Key Drivers

- Globalisation
- Knowledge Economy
- Electronic Connectivity
Some Prospects for the ‘00s

- Ideas Futures Exchange
- Real-time lie detection software
- Child entrepreneurs
- D-I-Y health care
- 50% of world trade conducted on Inter/Intra-nets
The Knowledge Economy

- Knowledge Intensification
- Knowledge Trade and Valuation
- Knowledge Growth
Value of Knowledge

Intangible Assets
Net Book Value

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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.’

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The Emergence of the Knowledge Worker

primarily engaged in the manipulation of symbols
Australian Industries, Wealth Creation
5 year aggregate growth to September 1997, IGP

- Communications
- Property & Business
- Accom, cafes & restaurants
- Govt admin & defence

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Employment by Industry Categories, Australia, 1966-1994

Source: OECD International Sectoral Database.
Employment by Firm Type, Australia 1985-1995

Source: BIE 1996, Small Business Brief, based on ABS data.
Implications for Skills

- Interactive Skill
- Cognitive Skill
- Motor Skill

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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 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

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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
Scenario

A ‘school room’ in 2010
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
Key Questions for the Open Forum

1. How can students be best prepared and assisted to develop the:
   - cognitive skills
   - social skills
   - personal skills

required of the knowledge workers?
Key Questions for the Open Forum (continued)

(2) What sort of environment is appropriate to develop knowledge skills?

- physical
- technological
- psychological

is appropriate to develop knowledge skills?
What might be the role of the ‘schools’ of the future in lifelong learning?