A pedagogy of e-learning

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Objectives

- Review some key concepts
- Preview some key developments
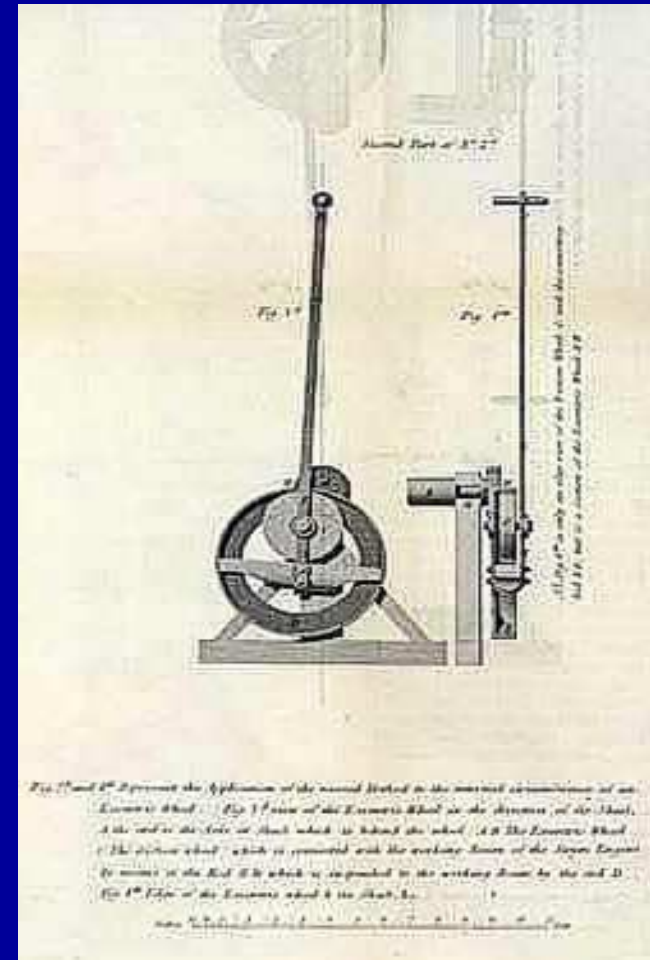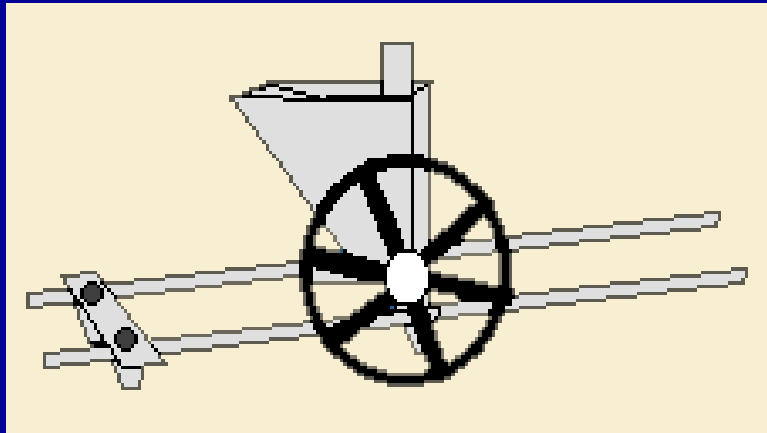- Stimulate some debate

The ICT revolution

- All major human revolutions have been grounded in technological change

From sticks to weapons, tools and fire technology

Agrarian and industrial revolutions

- Simple ideas and inventions that changed society – the seed drill and the spinning jenny.

Symbols of the digital revolution

- The computer

- The mobile telephone

Exponential progress
Breaking the barriers of time and space

- Since the sixties the speed and storage space of computers has doubled every couple of years and the cost, size and power consumption decreased by about the same amount.
- Bandwidth has increased a thousand fold in the last decade and internet traffic keeps doubling every one hundred days.

ICT a true revolution

- Changed the human social, moral, cultural, pyschological, economic condition
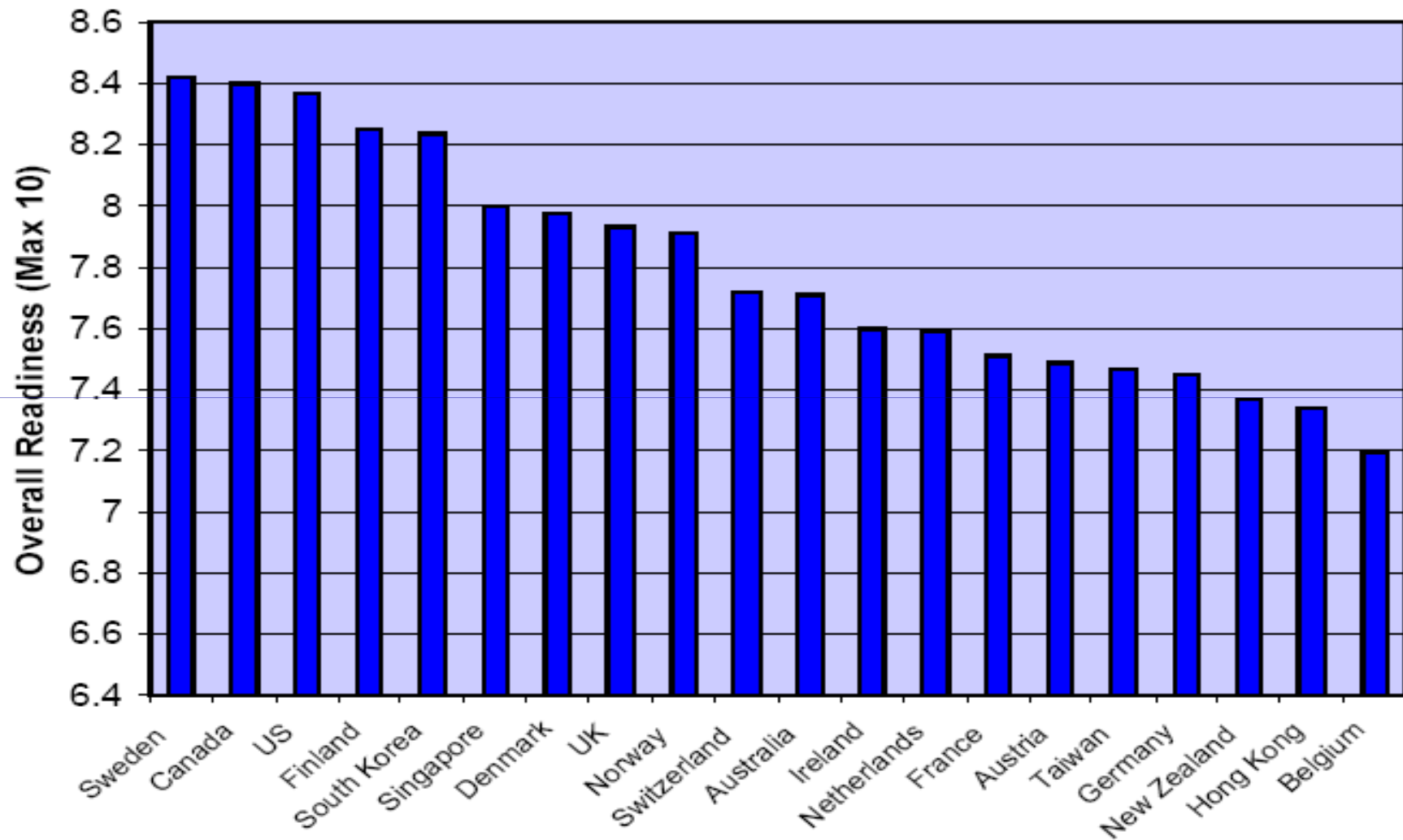
Homo zapiens

Multi-tasking

Global e-learning Readiness - Top 20 Nations

Y-axis: **Overall Readiness (Max 10)**

Countries (left to right): Sweden, Canada, US, Finland, South Korea, Singapore, Denmark, UK, Norway, Switzerland, Australia, Ireland, Netherlands, France, Austria, Taiwan, Germany, New Zealand, Hong Kong, Belgium

[All Sectors: Education, Industry, Government, & Society]
(Source: Economist Intelligence Unit)

Some definitions

- Pedagogy
- E Learning
- Educational Technology
- Information Communication Technology

ICT and learning

- 'The most important part of the information journey is the last few inches between a person's eyes and ears and the various parts of the brain'

  (David Brooks, International Herald Tribune, 3-4 May 2008)

ICT

- Can be a help and a hindrance
- A bridge and a barrier

It depends

- On the stakeholders
- On the incentives
- On an appropriate pedagogy

Stakeholders

- Providers of hardware and software
- Governments
- Leaders of tertiary institutions and their administrators
- Teachers
- Students

Three different points of view

Key to success in implementing online learning

Ongoing and open discussion that leads to negotiated agreement on:

- Why are we doing this?
- How can we do it best?
- How will we know we have succeeded?
- How can we go on making it better?

UKeU - a financial fiasco

- February 2000 UK government commits £62 million to UKeU.

- Education for those who need a second chance.

- September 2003 there are 900 instead of 5,600 students, platform problems, no obvious market

- February 2004 UKeU closed down after spending £50 million

- Key assumptions: platform, courses, marketing were crucial to success

A contrasting example

- 31 January 2002 Swedish government commits SEK 470 million to a NetUniversity to bring education to remote area students and those who need a second chance.
- A simple concept: a national portal for students who can enroll in online courses. The universities are paid extra to to put their courses online.
- Incentives end 2004.
- By 2007 nearly 80,000 students and 3,000 courses. About 60% are 5 point courses and up to 6% are year long programs.

The downside

- Universities in Sweden (some of the oldest and best) saw a chance to make money and encouraged staff to simply upload existing course material without supporting and builiding an appropriate pedagogy for the online versions of the course

E- Learning in companies

- Seven or eight years ago perhaps 10% of the IBM company's training and learning took place online
- Today that has risen to around 50%
- IBM tries to practice what it preaches by operating innovative e-learning practices within the company itself.

(Richard Straub, Director IBM solutions, EMEA)

Three (enthusiastic) points of view

- What a great way to save money
- What a convenient way to learn
- What a stimulating way to teach

The students

Online learning can be student centred in the most positive of ways - suitable in terms of time and place but also in terms of the most appropriate pedagogy.

Appropriate pedagogy

- Constructive alignment of the curriculum
- Takes into account the student motivation and learning styles
- Uses the strengths of ICT whenever appropriate

A Swedish online student profile

- A total of 17% of Swedish university students studied by distance (mainly online).
- Online students are more likely to have working class backgrounds (31% compared with 24% on campus).
- 84% of online students work compared to 41% on campus
- Online students are older
- Online students have more children (50% of all e-learners have children compared to 28% on campus)
- Online students are more likely to live in remote areas (10% versus 2% for on campus students)
- 18% on campus students from non Swedish background versus 16% of online students
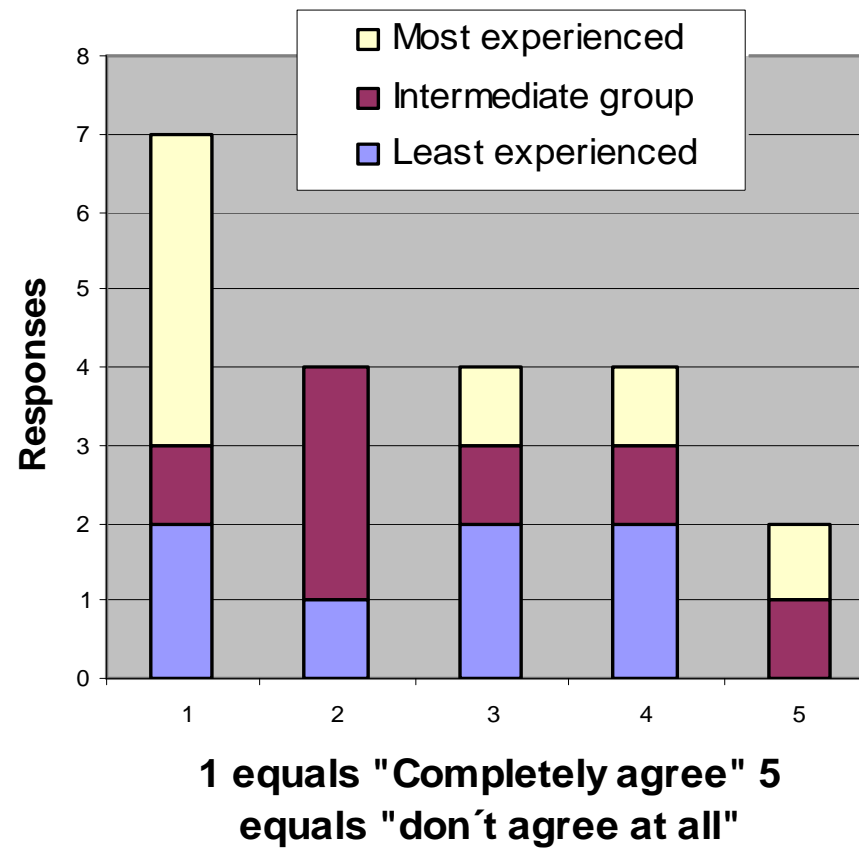
An online pedagogy

- Why are we teaching online?

- Who are the learners?

- How can they learn best?

- How will we know they have learnt well?

- How can we go on improving their learning?

The teachers are the key

- Stick or carrot?
- Support getting started
- Support as they develop confidence

Teachers use of online potential
The reality

- A comparison of the expectations the lecturers have on a LMS and what tools they actually use shows that the lecturers we surveyed use the tools they believe will make their work easier and save time as long as it doesn't take too much of an effort to get started.

- Lecturers use the tools that facilitate a traditional teaching process rather than those that could have a large pedagogical impact on their course.
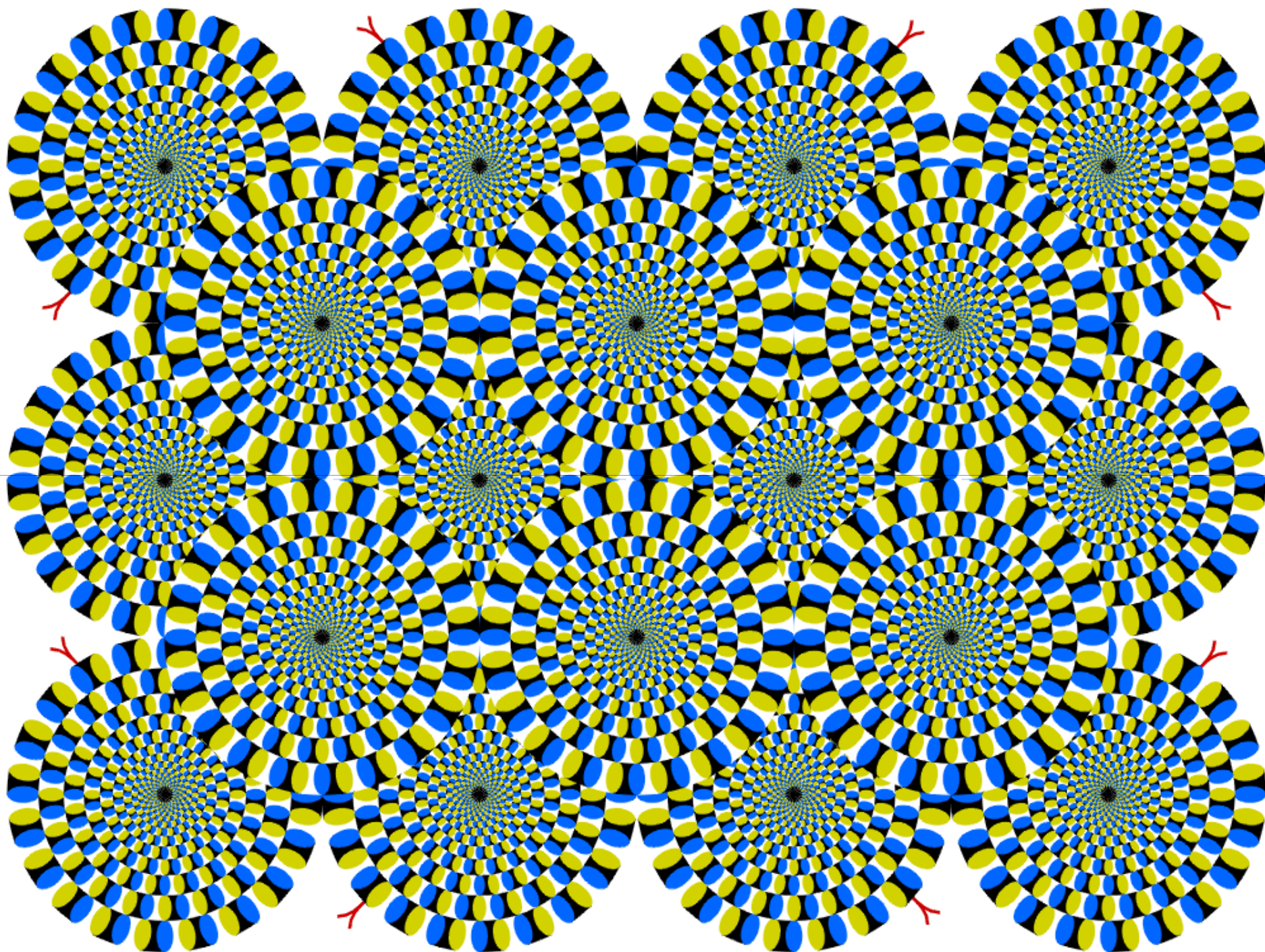
Powerpoint: a help or a hindrance?

More innovative pedagogy

- Using the full capacity of digital media - animation, visualizaton, data mining, film, simulation
- Serious games
- PBL using the internet (Wikipedia debate)
- More formative assessment
- More variety and quality in summative assessment

Mobile technology

Conclusion

- We must be aware of the digital illusion
- ICT is fundamentally a tool
- E learning is another form of teaching and learning
- If we fail to develop an appropriate pedagogy for e learning we fail our students and waste an extraordinary opportunity to use the full potential of ICT

'*Information* is not necessarily knowledge, and *knowledge* is not always wisdom'.

Jackson (2004)