e- and m-learning in medical education

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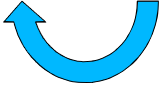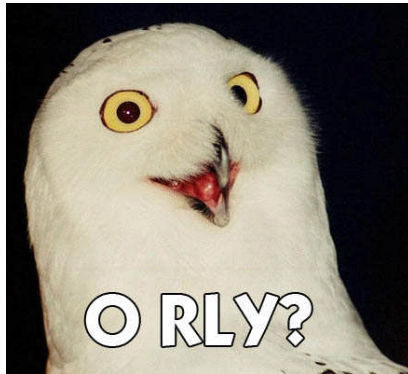Hanging sculpture or "mobile" by Alexander Calder: *L'empennage* (1953)

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A happy confluence?

- Self-directed learning
- In a collaborative & participative environment

- Web 2.0
- User-generated content – 'produsage'
- Wikipedia, Facebook…

Digital natives?

- Digital natives – oh, really?
- Mismatches in quality perspectives
- 'Produsers' in a minority

Creating and sharing material

- Facilitators…?
- Barriers…?

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Encouraging creating and sharing material

- Enjoyable
- Familiarity with material
- Part of a community
- Structure
- Meaning
- Feedback
- Culture of informal discussion
- Familiarity with each other in person

- Anxiety
- Sense of worth of contribution
- Intimidated by peers
- Lack of response/others' contributions
- Having to be the first
- Protective/competitive
- Other pressures/focus on assessment
- Social networking fatigue

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Encouraging creating and sharing material

- Asynchronous vs. synchronous
- Permanence
- Group size
- Modality
- Other digital channels
- Right technology
- Social comparison

Potts HWW (2011). "Student experiences of creating and sharing material in online learning." *Medical Teacher*, **33**(11), E607-14.

Feeling safe: trust

Morgan-Hunt commitment-trust theory of relationship marketing:

- Trust antecedes relationship commitment
- Factors prompting a trusting relationship: perspective taking, empathic concern, self-efficacy, network density

Mobile is here

- >4.6 billion users worldwide
- Always-on, always-with-me
- Phone ⇒ computer
- Numerous uses in m-health, m-libraries, m-learning…

M-learning…

Many examples; growing fast:

- Apps to access content (*e.g.* BNF, textbooks…)

- Mobile web

- SMS systems

NHS Connecting for Health

Biggest civilian IT project in the world ever; many successes, however…

"**few successful deployments** of the scheme's two main hospital systems […]"

"Seven years after the launch of the National Programme for IT in the NHS, **essential technology does not meet the needs** of doctors, local cost estimates are unreliable, many NHS staff remain unenthusiastic, and the programme's future is far from certain."

"The **delays** are despite the programme's having spent £2.4bn by March 2007"

"An NHS trust at the forefront of work on the £12.7bn NHS IT scheme has called in police after a breach of smartcard security **compromised** the **confidentiality** of hundreds of electronic records."

NHS NHS Care Records Service

The NHS is changing the way it stores and manages your health records

See: Greenhalgh, Stramer *et al.*, *BMJ* 2010, **340**:c3111; Greenhalgh, Potts *et al.*, *Milbank Quarterly* 2009, **87**(4):729-88

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Guess the date

Advert in California newspaper that a certain doctor "wishes to inform his patients and the public that he may be summoned or consulted through the telephone either by night or day. The communication is made through the American Speaking Telephone Company, and is absolutely private and confidential."

July 1878

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A pre-history of m-health/learning

- Mid-19th century: telegraph used to fetch doctors
- 1860: heart signals sent by telegraph
- 1876: Alexander Graham Bell patents the telephone
- 1879: A doctor describes listening to a child's cough through the telephone late one night and being able to decide an immediate visit was not required
- 1901: Linguaphone release language lessons on wax cylinders

Make it easy to use

Money

- Unlike Internet, most mobile activities have to be paid for
- What does the end user pay? What does the institution pay?
- Long tail of usage

Also see:
http://www.uhmlg.ac.uk/
2012_springforum.html

Bradley & Holley (2010):
www.ESCalate.ac.uk/8140

Thank you

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