Expertise for the future: harnessing the power of digital technologies

Gráinne Conole, Bath Spa University
Shaping the future of food safety, together conference
Milan, 15th October
Outline

• The importance of e-learning
• E-learning timeline and emergent technologies
• E-Pedagogies
• Facets of e-learning
  – Openness
  – Mobile learning
  – Social media
  – Digital identity
  – Distributed cognition
SCHOOL OF THOUGHT:
A VISION FOR THE FUTURE OF LEARNING
SIMONE’S STORY
E-Learning timeline

- Multimedia resources
- The Web
- Learning objects
- Learning Management Systems
- Mobile devices
- Learning Design
- Gaming technologies
- Open Educational Resources
- Social and participatory media
- Virtual worlds
- E-books and smart devices
- Massive Open Online Courses
- Learning Analytics

- 80s
- 93
- 94
- 95
- 98
- 99
- 00
- 01
- 04
- 05
- 07
- 08
- 10
Barriers to adoption

• Lack of digital literacy skills
• No reward for teaching
• Competition from other providers
• Scaling innovation
• Democratisation
The importance of e-learning

• For **learning**
  – Potential to support interaction, communication and collaboration
  – Developing digital literacy skills
  – Promoting different pedagogical approaches
  – Fostering creativity and innovation
  – Connecting students beyond the formal course

• For **life**
  – Preparing students for an uncertain future
  – Improving employability opportunities
  – Increased importance of technology in society
Innovating pedagogy

• Massive open social learning
• Learning design informed by analytics
• Flipped classroom
• Bring your own devices
• Learning to learn
Innovating pedagogy

• Dynamic assessment
• Event-based learning
• Learning through storytelling
• Threshold concepts
• Bricolage
Mobile
Dynamic
Personalised
Connected
Ubiquitous
Across devices
Open
Free
Intuitive
Interactive
Global
Robust
Technologies... two sides of a coin

- Enhance
- Augment
- Supplement
- Replace
- Enrich
- Expand
- Empower
- Detract
- Lessen
- Confuse
- Overwhelm
- Infringe
- Time consuming
- Addictive

the future is digital
Facets of digital technologies

- Distributed cognition
- Mobile learning
- Openness
- Digital identity
- Social media
1. Openness

• Digital technologies enable more open practices
• Emergence of OER and MOOCs
• Increase of free resource and expertise, via Webinars, blogs, open repositories and journals, social media
The good and the bad...

- Transparency
- Greater reach
- Equity and social inclusion
- Challenging existing business models
- Disaggregation of education
- “Laying yourself bare”
- Surveillance
- Misuse of data
- Misinterpretation
- Issues re quality and accreditation
- Ownership
The promise and the reality

New forms of interaction, communication and collaboration. Lots of free resources

Not fully exploited
Bad pedagogies
Teachers don’t have the time or the skills

https://www.alt.ac.uk/sites/alt.ac.uk/files/public/ALTsurvey%20for%20ETAG%202014.pdf
What is learning design? (1)

https://www.flickr.com/photos/anonymouscollective/1899303123
What is learning design? (2)

https://www.flickr.com/photos/frawemedia/5187769740
What is learning design? (3)

Sharing

https://www.flickr.com/photos/10075621@N06/3810402230
http://www.larnacadeclaration.org/

- What is Learning Design?
- Teachers need help with making effective design decisions that are pedagogically based and make appropriate use of digital technologies
The 7Cs of Learning Design

- **Vision**
  - Conceptualise

- **Activities**
  - Create
  - Communicate
  - Collaborate
  - Consider

- **Synthesis**
  - Combine

- **Implementation**
  - Consolidate

http://www2.le.ac.uk/projects/oer/oers/beyond-distance-research-alliance/7Cs-toolkit
Course features

http://cloudworks.ac.uk/cloud/view/5950

• Pedagogical approaches
• Principles
• Guidance and support
• Content and activities
• Reflection and demonstration
• Communication and collaboration
The broader context: The Larnaca Declaration

http://larnacadeclaration.org
Accreditation of non-formal learning

Many learners wish to have formal transferable recognition of their knowledge & skills

Challenges:

Open learning recognition is a recent topic, lack of guidelines for interested actors
Assessment and recognition might become a business model for OER and MOOCs
Information from OER provider (HEI)

Information from learner

Information from assessing/certifying institution

Learning Passport for accreditation
MOOCs

- MOOCs are challenging formal education
- New business models emerging
- Ways to accredit informal and non-formal learning
- EFQUEL MOOC blogs
  - [http://mooc.efquel.org/](http://mooc.efquel.org/)
Beyond cMOOCs or xMOOCs

**cMOOCs**
- Weekly centred
- Participant reflective spaces
- Social and networked participation
- Hashtag: #etmooc
- Use of a range of social media

**xMOOCs**
- Linear learning pathway
- Mainly text and video
- Formative feedback through MCQs
- Individually focused
## A taxonomy of MOOCs

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td></td>
</tr>
<tr>
<td>Open</td>
<td>Degree to which the MOOC is open</td>
</tr>
<tr>
<td>Massive</td>
<td>How large the MOOC is</td>
</tr>
<tr>
<td>Diversity</td>
<td>The diversity of the learners</td>
</tr>
<tr>
<td>Learning</td>
<td></td>
</tr>
<tr>
<td>Use of multimedia</td>
<td>Extent of use of rich multimedia</td>
</tr>
<tr>
<td>Degree of communication</td>
<td>Amount of communication incorporated</td>
</tr>
<tr>
<td>Degree of collaboration</td>
<td>Amount of collaboration incorporated</td>
</tr>
<tr>
<td>Amount of reflection</td>
<td>Ways in which reflection is encouraged</td>
</tr>
<tr>
<td>Learning pathway</td>
<td>Degree to which the learning pathway is supported</td>
</tr>
<tr>
<td>Quality assurance</td>
<td>Degree of quality assurance</td>
</tr>
<tr>
<td>Certification</td>
<td>Mechanisms for accreditation</td>
</tr>
<tr>
<td>Formal learning</td>
<td>Feed into formal learning offerings</td>
</tr>
<tr>
<td>Autonomy</td>
<td>Degree of learner autonomy</td>
</tr>
</tbody>
</table>

http://e4innovation.com/?p=727
2. Mobile learning

- Smart phones and tablets almost ubiquitous
- Feasible and affordable because of good size, weight, screen, battery life and cost
- Range of excellent Apps to support communication, productivity, curation and learning
The good and the bad...

- Learning anywhere, anytime
- Mobile ready websites and Apps
- Learning across contexts and devices
- Ubiquitous connectivity
- Social inclusion

- No ‘down time’
- Dependency
- Info in the Cloud
- Battery life
- Lack of digital literacy skills to use effectively
From E-Learning to M-Learning

• More than just mobile e-learning
  – Anytime, anywhere for the learner (efficiency)
  – Enables learning in special location (i.e. fieldwork)

• New affordances of mobile
  – Small and compact
  – Personal
  – Capturing sound, video, image
  – New tech i.e. augmented reality
  – Wearable tech

Peacekeeper student using supplied iPad and course app – Security, Conflict & International Development Masters Distance
Flexibility and mobility

Small, compact size

Portability

Readability

Easy on the eyes

Continue reading, Bookmark

Capacity

Access from a single device without internet

Long battery life
3. Social media

- Shift from a passive web to a participatory, interactive and social web
  - Distributed, networked, dynamic, participatory, complex, open

- Range of tools to communicate and collaborate

- Being part of a global community of peers
The good and the bad...

- Rich ways to communicate and collaborate
- Part of a global community of peers
- Access to vast amount of information
- Rapid dissemination of information
- Crowd sourcing

- Lack of privacy
- Negative digital traces
- Misuse of data
- Cyberbullying and trolling
- Privacy and security
- Corporate control
- Time consuming
- Addictive
My network
The dark side...
4. Digital Identity

• How you present yourself online
• How you interact and communicate with others
• Facets
  – Reputation
  – Impact
  – Influence
  – Productivity
  – Openness

http://www.flickr.com/photos/easegill/8481750456/
Identity, presence and interaction
Presence

• Presence (markchildls.wordpress.com)
  – Mediated presence
    • “being there”
    • immersion
  – Social presence
    • projection of ourselves
    • perception of others
  – Copresence
    • being somewhere with others
  – Self presence
    • or embodiment

http://www.flickr.com/photos/deadair/4250153736/
The good and the bad...

- Extension of ‘real’ self – can be the same or different
- Extended reach
- Exploiting the medium
- “Laying yourself bare”
- Misinterpretation of identity
- Cyber-stalking
- Identity theft
Online interaction and communication is great but there is a darker more sinister side... here is the story of my recent experience

Disclosure, care and vulnerability in networked scholarship project

http://e4innovation.com/?p=782
5. Distributed cognition
The good and the bad...

- “Person-Plus”
- Exploiting vast amount of information
- Tools to curate, manage, filter
- Enhanced capacity
- Greater cognition
- Lack of digital literacy skills to use effectively
- Easy to get lost and confused
- Lack of permanency
- Machines taking over..
- Over dependency
Will machines make us extinct?
Future challenges

- Disaggregation of Education
- New Digital literacies
- Digital skills and jobs gap
- New business models and pedagogies
- Blurring of boundaries

http://www.flickr.com/photos/mrsdkrebs/6400358699/
The information bomb....

- Technologies cannot exist without accidents
- Technologies separate us from real time and space
- When, not if technologies fail....