Open Data and Higher Education: future gains and current practice

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Web and Internet Science Research Group
Southampton: home to open data

http://data.southampton.ac.uk
Open scholarship and research

Eprints, Dspace, etc

Adventures in semantic publishing, Shotton et al 2009

Self archiving mandates

Data as well as publications

Observational lessons from the OS community
Increasingly a matter of principle
According to Universities UK

- Decision making and organisational change
- Student choice and recruitment
- The research process
- Teaching and learning
- Driving economic growth
Education Advisory Board 2010

• “Profile of the dashboards, key performance indicators, and business intelligence capabilities that are emerging as the new gold standard for university decision support as a growing number of institutions are investing in data and analytics as critical change-management tools”.

Developing a Data-Driven University
EAB, Washington DC
A view of current motivations?

Public good
- Commonwealth
- Value for money
- Sharing
- Return on investment

Ownership/profit
- intellectual property
- Brand 'exploitation'
- internal/external value added
- Return on investment
The two magics

(Tim Berners Lee, 2006, 2007)
Common data -> exposed -> shared -> RDF

- Public and private capital
- Across departments and institutions
- Enable workflows and collaboration
- Reporting, research returns
- Disseminate, share and reuse findings
- Attract funding
- Integrate knowledge capital
- Facilitate interdisciplinary initiatives
- Remove/reduce overheads (time to publication)

- Public and private capital
- Across departments and institutions
- Enable workflows and collaboration
- Report retention and progression
- Student recruitment
- Admission tariffs and course requirements
- Publish module specifications
- Publish accreditation data
- Dynamic data exchange between departments
Educational landscape

Digital literacies

- Shop window: eBay, Amazon
- Context mobile
- Vehicle texts: video
- Platform citizen science
- Searching Information
- Meme machine: apps and apps
- Creation blogs

From rent a coder, to wikilogia, from flikr to Pinterest, iTunesU to TEDx sharing, ownership, micro-charging, new models, Tripit meme machines borrow from business
Making things work smoothly

“The people who will do cool stuff with your data... will not be you”
Look to the ‘wild’

the educational contexts will emerge

the issues are ones of scale
Students as producers and learners

Students might contribute to collecting and assembling open data e.g. vocabularies, geographic data, plant census, open mapping, disease and health markers. Opportunities for authentic activities, situated learning, reward, contribution.
Working in the open

Individually

- Alternative online open and connected framework (OOC)
- Building global learning communities
  - Using mobile social media

And in groups
We want to climb over the walls...

With apologies....
Adapted from image used by tbl, originally from the economist I think
Backbone concepts

• Reworking Shotton’s concept of semantic publication into the educational context
  – semantic publication
    • to include anything that enhances the meaning of a published information
    • facilitates its automated discovery
    • enables its linking to semantically related information
    • provides access to associated data in actionable form
    • facilitates the integration of associated data

• We are talking situated learning
Learn from the success and methods of collections in the wild
Crowd sourced open data map

- Mashup of crowd sourced data plus official data
- Crowd sourced contributions
- Useful and visible
- Interrogate the data points interactively
- Flip the process with treasure hunts

http://opendatamap.ecs.soton.ac.uk
OERs, OCW and MOOCs
open educational resources
massively open online courses
Learning by example

A guide to open educational resources

Contents:
- What are open educational resources?
- Open educational resources – the story so far
- Finding and sharing open educational resources
- Open licensing
- Approaches to releasing, using, reusing and repurposing open educational resources
- The rationale for adopting open educational resources
- Practical guidance: Manage, Find, Use and Reuse, Release, Share, License
- Benefits case studies: Teacher, Learner, Institution, Communities

What are open educational resources?

Open educational resources (OER) are learning and teaching materials, free and openly accessible. Examples include full courses, course modules, lectures, games, teaching materials in the form of text, images, audio, video and may even be interactive.

Teachers, learners and the general public can access and make use of open educational resources without regard to their location or affiliation with any particular institution. Open educational resources can be accessed and shared through public services like iTunes U, SlideShare, YouTube and Jorum.

Individuals and organisations can create and share their own open educational resources. Once released, the resources can be used by a learner, reused by a teacher, remixed with other resources or repurposed to create new educational materials. While it is not essential to embrace all aspects – release, use, reuse and repurposing – involvement with one aspect tends to lead naturally to another.

The Open Agenda at the University of Salford

Case study

October 2011

The University of Salford is at the heart of a network of research and innovation that extends from international partnerships to local engagement. As such, the university aims to create economic and social value through innovative ways of working together. A key element to this is openness.

Digital Futures

In this case study, I show how the decision to launch an Open Access repository – now increasingly common place in universities in Britain and education providers and through public services like iTunes U, SlideShare, YouTube and Jorum –,

in consequence, the formal launch of the University of Salford’s Learning Resources

Strategic Themes
e-Learning

Trading on the success of one of the University’s early initiatives in the area of open educational resources – the Learning Resources was launched in 2010 – an early stage of what was to become a comprehensive restructuring of administrative and professional services, including establishing the library and all its functions as a division.
Challenges for the working group

Specify a research agenda

• What are the meaty questions?
• Can you find synergies?
  – Within your institution
  – Across like institutions
  – Within your existing research frameworks

Build communities of practice

• across open data practitioners
  – Identify good practice
  – Identify the art of the possible

Does institutional action/research offer an alternative route to funding/support?
Last words from Universities UK

• What is open data and why should we be interested?
  – Can you be the person to do that in your sphere of influence?

• How is the potential of open data translated into practice?
  – Not only know the examples but research and publish data

• Where are the problems and how can they be avoided?
  – We can gather the data and remember...
    • There is space for more than just quantitative analysis

• Where is good practice already happening in higher education?
  – We can look beyond research and education but
    • big data and learning analytics are likely to headline grabbers
Thank You 😊

Questions?

Discussions?
References


Hall, M. (2011). The Open Agenda at the University of Salford (p. 8). Bristol.


Web Science Centre for Doctoral Trainng, University of Southampton http://dtc.webscience.ecs.soton.ac.uk