## Open Data as Open Educational Resources

Javiera Atenas, UCL Leo Havemann, BBK William Hammonds, Universities UK

# **Opening up Education**

In education and elsewhere information has become increasingly digital and therefore potentially, more accessible.

We have seen the rise of *parallel* open or 'opening' movements around:

- **learning and teaching**: open educational resources and open delivery models (from OCW to OER, Open Textbooks, and lately, MOOCs)
- research: open access (OA) to research publications (shaking up traditional publishing models and also driving emergence of open peer review models)
- data: open access to government and research data (OD)

... parallel but somewhat separate?

But drives for transparency, democratisation, collaboration and the public good interconnect these movements

Meanwhile, educators are increasingly thinking about research-based and collaborative learning, 'authentic' assessment, data literacy...

### The Value of Open Data

- Open data is an invaluable resource for scientific communities
- Supports and encourages more transparent research practices
- Supports scientific development and reproducibility
- Can be used to model good practices in academia for research and teaching

# Where to find OD

- International agencies and organisations
  - Word Bank ; United Nations ; EU
- National Governments and their agencies
  - UKOD; GermanyOD; USA
- Local governments
  - <u>Sardinia</u>; <u>London</u>; <u>Barcelona</u>
- Non-governmental organisations
  - ODI; Nesta; Monithon
- Academic institutions and research centres
  - <u>CERN; ESA; NASA</u>

### How can OD be used in HE?

- Collaborating with researchers in real research projects
- Collaborating with students from other disciplines
- Creating scenario-based learning activities
- Collaborating with their local communities working on real problems

### **Open Data for Skills Development**

- Development of critical skills
- Development of analytical skills
- Development of research skills
- Development of data literacy skills
- Development of teamwork skills
- Development of citizenship skills

### Questions

- Are academics embedding open data in their curriculum and if so, how?
- How are students collaborating, learning and developing quantitative and qualitative research skills by using open data in the classroom?
- How are students in Higher Education benefiting from open data?

# To learn more about OD and Open Education

- Open Definition <a href="http://opendefinition.org">http://opendefinition.org</a>
- Open Data Handbook <a href="http://opendatahandbook.org">http://opendatahandbook.org</a>
- Open Education Handbook
  <u>http://education.okfn.org/handbook/</u>
- Figshare <u>http://figshare.com</u>
- •Open Data Europe <a href="https://open-data.europa.eu/en/data/">https://open-data.europa.eu/en/data/</a>
- UK Open Data Portal <u>http://data.gov.uk</u>
- •UK HE Data Portal <a href="http://www.data.ac.uk/">http://www.data.ac.uk/</a>
- Directory of Data Repositories http://oad.simmons.edu/oadwiki/Data\_repositories

