What is Open Education Data?

Submitted on 22 Apr 2014 by mariekeguy

Open education data can refer specifically to the open data that comes out of educational institutions - all physical places of study from schools to further education and universities. This blog post looks at the forms it can take and the uses this type of data can have in our working world.

I work for Open Knowledge, a global not-for-profit organisation. We believe open knowledge can empower everyone, enabling people to work together to tackle local and global challenges, understand our world, expose inefficiency and challenge inequality and hold governments and companies to account. I spend most of my time on an EU-funded (FP7) project called LinkedUp that aims to push forward the exploitation of public, open data available on the Web, in particular by educational institutions and organizations. It is doing this through a series of competitions aimed at developers called the LinkedUp Challenge. For the challenge we ask developers to create interesting and innovative tools and applications that analyse and/or integrate open web data for educational purposes.

As part of our work on the project we have been looking at defining terms like 'open education data', 'open educational data' and 'open data in education'.

Open education data can refer specifically to the open data that comes out of educational institutions - all physical places of study from schools to further education and universities. This refers to administrative data, which could include reference data such as the location of academic institutions; internal data such as staff names, resources available, personnel data, identity data, budgets; course data, curriculum data, learning objectives; user-generated data such as learning analytics, assessments, performance data, job placements.Traditional data sets include identity data and system-wide data, such as attendance information; new data sets are those created as a result of user interaction, which may include web site statistics, and inferred content created by mining data sets using questions.

Whatever their classification it is clear that open education data sets are of interest to a wide variety of people including educators, learners, institutions, government, parents and the wider public.

Open Education Data Sets and their application

So to take the example of England, where I am physically based, you could start thinking about some of the datasets that fall under this definition, many of them are held by the government, such as school performance data, data on the location of educational establishments and pupil absenteeism. There is also data from individual institutions such as that collated on linked universities (http://linkeduniversities.org/lu/index.php/datasets-and-endpoints/) and on data.ac.uk and from research into education, such as the Open Public Services Network report into Empowering Parents, Improving Accountability.

Previously much of the release and use of open educational data sets has been driven by the need for

accountability and transparency. However recent developments, such as the current upsurge of open data challenges (see the ODI Education: Open Data Challenge and the LAK data challenge, have meant that there is an increasing innovation in data use, and opportunities for efficiency and improvements to education more generally. Their potential us is broad. Data sets can support students through creation of tools that enable new ways to analyse and access data e.g. maps of disabled access and by enriching resources, making it easier to share and find them, and personalize the way they are presented. Open data can also support those who need to make informed choices on education e.g. by comparing scores, and support schools and institutions by enabling efficiencies in practice e.g. library data can help support book purchasing.

Education technology providers are also starting to see the potential of data-mining and app development. So for example open education data is a high priority area for Pearson Think tank (), back in 2011 they published their blue skies paper How Open Data, data literacy and Linked Data will revolutionise higher education. Ideas around how money, or savings, can be made from these data sets are slowly starting to surface.

Application of these data sets can be see through services like Which? University which builds on the NSS annual survey held in Unistats, the Key information sets and other related data sets to allow aid students to select a university; Locrating, defined as 'To locate by rating: they locrated the school using locrating.com' which combines data on schools, area and commuting times; Schools Atlas, an interactive online map providing a comprehensive picture of London schools; equipment data.ac.uk - which allow searching across all published UK research equipment databases through one aggregation "portal.

A previous blog post entry on the EPSI blog: For kids' sake, connecting parents to Dutch schools with open data looked at one initiative supporting open education data in Holland.

Further afield in Tanzania Shule.info allows comparison of exam results across different regions of Tanzania and for users to follow trends over time, or to see the effect of the adjustments made to yearly exam results. The site was developed by young Tanzanian developers who approached Twaweza, an Open Development Consultant, for advice, rather than for funding. The result is beneficial to anyone interested in education in Tanzania.
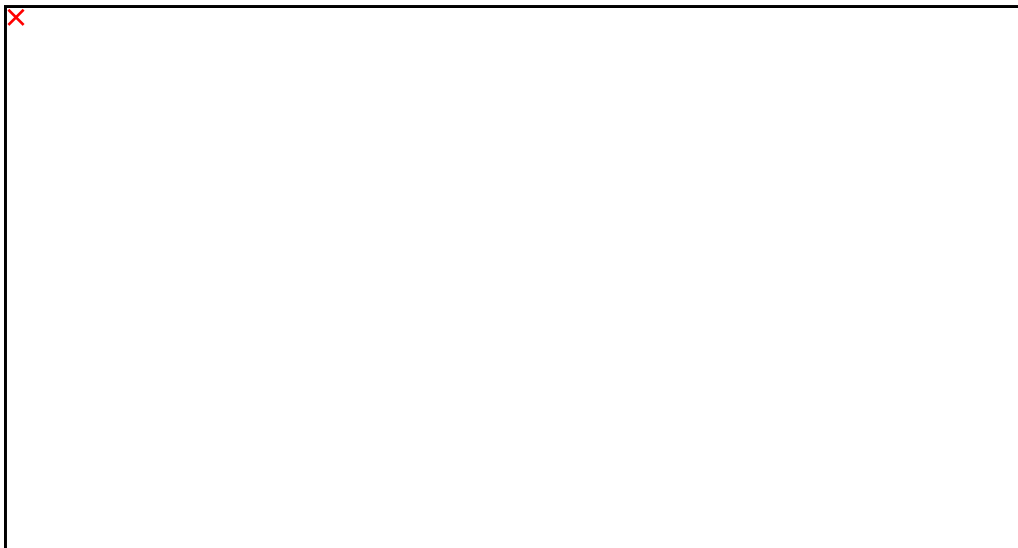
All over the world prototypes and apps are been developed that use and build on open education data. Are you aware of anywork in this area that you'd like to share?

This blog post has been adapted from one that previously appeared on the UK Web Focus blog.