

Open Education 2030

Call for Vision Papers

School Education

OER as basic and renewable public and commercial knowledge resources in 2030

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By 2030, public educational resources will be treated as a common good – just like natural energy resources. Even if the publishing business, as it currently exists, will not last until 2030 because of the disruptive effect of the OER model combined with the spread of cheap digital technologies, OERs will last. And as a common good, they will form the basis for a market for publications and other services based on free and open resources – the way there is a market for the collection and distribution of energy based on natural, renewable sources of power.

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As national programs of open educational resources (OER) creation grow strong in the beginning of the second decade of the 21st century, we can easily imagine how their potential will be used even if the current programs will shut down and change before 2030 – this is the faith of most public ICT programs, that fail in the long term to adapt to the pace of technological and civilisational change. The difference with regard to OER is the open publication model itself, which provides sustainability of the basic resource despite possible failure of products and services built on top of such „raw material“. This is similar to the way free software functions. Comparison can also be made to other goods that have the characteristic of public goods – such as air or water, which can serve as renewable energy sources and both provide “free” energy and sustain a commercial industry dealing with its collection, sale and distribution.

Open resource sharing models have been an escalating trend in science, education and culture for last ten years. This year marks the tenth anniversary of the Budapest Declaration on Open Access (Open Access)¹, whose signatories formulated a program to ensure openness (accessibility and usability) of knowledge in the form of scientific publications. This declaration is treated today as a standard document for setting out the objectives of an open model, also outside the realm of science. The other key document, The Cape Town Declaration in 2007, formulated the precise goals for open education. It has been followed up last year by the UNESCO Paris Declaration², which confirmed the global standard for Open Educational Resources. The declaration proclaims in particular that the state should promote openness of publicly funded educational resources, ensuring benefits for citizens as well as widely understood increases in the return on investment into educational resources.

Opinions that massive adoption of open resources will become killer competition for commercially produced resources seem common sense, but are in fact erroneous. They do not take account of the fact that the commercial entities can benefit from Open Educational Resources. An analogy here can be made to the exploitation – including its commercial forms – of what is traditionally perceived as commons resources: water, air, wind. The general argument about similarities between physical public goods and digital „new commons“ has been made by scholars such as James Boyle³ and Justyna Hofmokl⁴. If these resources are treated as free "building blocks" of raw material, one can on their basis build added value in

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the form of products or services. This argument is well understood in relation to energy and other physical resources but is still controversial when made in relation to non-material goods. In the case of educational content, freely available basic content can for example serve as basis for premium materials (enriched with multimedia content), for courses taught on the basis of the content (where users pay for the service of being taught, and not simply access to content), or for distribution – for example for publication in print of content available only as digital in its raw form. Furthermore, mobile telecom operators and producers of mobile equipment (smartphones, tablets, e-book readers and future iterations of such equipment) can distribute hardware with pre-loaded free content, which increases the use value of the equipment with minimal costs on the part of the producers. There are many other – often more advanced – scenarios of such added value creation, based on the general concept of a freemium model: in which business activity is possible on the basis of freely shared resources.

The underlying rationale for critique of open educational resources is the belief that such resources are unfair and fatal competition for the market. But research proves that this is not the case⁵, with many examples of the common occurrence of these two as alternatives: public transport and taxis, public highways and toll roads, public television and private broadcasters, libraries and bookstores, public schools and private schools, and finally, educational materials and teachers' resources. In each of these cases, the state succeeded in creating a regulatory model in which on the one hand the market is not destroyed, and on the other there is a public option available. Such a system should also support e-textbooks and other educational resources. In order to understand this ecosystem, one should in particular distinguish between raw materials and primary resources on one hand, and manufactured goods and services on the other. Despite the availability of basic resources one can create market for services and resources processed in "premium" ways of their creation, usage experience and distribution.

Around the world today there are several business models based on OER's. There is also basic evidence that commercial activities may increase the reach and impact of open educational resources. This suggests that there is a reinforcing mechanism that works both ways between public resources and market-oriented activities. We can start with the report prepared by Graham Vickery for the European Commission⁶, which outlines the case for economic potential of the use of public resources. Vickery argues that public resources for education, scientific and cultural heritage available to the public, have potential market and non-market uses, and also serve the goals of commercial production. This is the case for emerging services and educational start-ups like boundless.com, unglue.it or even the premium search services offered by Pearson, the biggest commercial educational publisher.

It is worth mentioning at this point that added value needs not be created by purely market forces. The internet and digital technologies have greatly increased the effectiveness of non-market production, described by Yochai Benkler as social production in the „commons based peer production model“. This is the case of many open educational initiatives, starting with Wikipedia and evolving over time into school-level educational projects, with the Khan Academy being the most famous one. Social initiatives often face the challenge of long-term sustainability and coordination of effort and are thus characterized, like most open initiatives, by a high rate of failure. At the same time sheer number of such initiatives means that even the few that become successful in the long term offer a vibrant ecosystem of educational resources and services.

In Poland, the Ministry of Education has launched in 2012 the „Digital School“ initiative⁷. The program follows a series of programs based almost solely on the provision of equipment to schools – and differs from them by virtue of being a complex program consisting of four segments: e-school (infrastructure and equipment for schools), e-teacher (teacher trainings), e-student (ICT equipment for students) and e-resources (creating open textbooks, redesign of

Scholaris, the national platform for educational resources, and production of ICT tools for school management). As part of the program, atomic textbook resources (textbooks and multimedia) will be published under a Creative Commons Attribution – Share Alike license. 18 free textbooks made with public money and with a formal review by the Ministry of Education will remain available as public resources even if the broader program will end without success and continuation (as many similar „ICT for school“ programs in Poland and other countries did before). The „Digital school“ program, considered by many experts as an exemplary national-level OER project, offers an example of a new form of resilience of educational resources offered by the OER model.

Observing the current growth of OERs and taking into account the specificity of a production model, in which relatively few (to name, for example, Salman Khan) can provide a high quality resource to many, we may assume that by 2030 at least standard educational materials will be a basic, publicly available resource. Charting of educational shifts caused by such a shift from a current condition of scarcity (at least in some regions) or barriers (mainly economical) is a task beyond the scope of this short text. But one can assume several crucial shifts happening, beyond the growth of a market on top of the open educational raw resources. This might include basic OERs becoming the simplest type of educational content, and self-study the most basic form of education. Students and parents – or state educational systems – would then invest fund to offer premium services or access to additional content. Secondly, the curation – or tailoring – of content to different individual, group or local needs will become a profession as important as current publishing professions. Thirdly, availability of OERs might increase the level of individual teacher activity – with teacher moving away from mass-produced commercial content they use today.

That is why state funded resources should be treated as a common good, just like natural energy sources. Both make sense only as renewable resources. Even if the current publishing enterprises will not last until 2030 (and most probably this will not be caused by the competition from OERs, but other factors), OERs will last. With them, there will be a market for content producers and distributors, and service providers – either new or adapted ones. Many of them, we cannot yet imagine today – the way no one has imagined MOOCs or the inverted classroom model. Thus an understanding of the functioning of OERs as basic, renewable, common goods is more important today than predicting the specific shape of OER products and services.

Footnotes

- ¹ Budapest Open Access Initiative, 14 Feb 2002, <http://www.opensocietyfoundations.org/openaccess/read>
- ² Paris Open Educational Resources Declaration, 22 June 2012, http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/Events/Paris%20OER%20Declaration_01.pdf
- ³ *Towards an eclectic theory of the internet commons*, Hofmokl, J., International Journal of the Commons, North America, 4, oct. 2009, URL: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=470983
- ⁴ *The Second Enclosure Movement and the Construction of the Public Domain*, Boyle, J., Law and Contemporary Problems, Vol. 66, pp. 33-74, Winter-Spring 2003, URL: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=470983
- ⁵ *Economic implications of alternative scholarly publishing models*, Houghton J., Rasmussen B., Sheehan P., JISC, London 2009 and Comment to report in *Minerva's Owl*, Hall M. w Prometheus, Vol 28(1); 61-71
- ⁶ Review of recent studies on PSI re-use and related market developments, Vickery G., European Commission 2011.
- ⁷ Digital School national ICT and OER textbooks creation program in Poland, <http://www.cyfrowaskola.men.gov.pl/>