TRENDS IN BUSINESS MODELS FOR OPEN EDUCATIONAL RESOURCES AND OPEN EDUCATION

by **Robert Schuwer** and **Ben Janssen**

This article deals with the various aspects of the business models associated with open education (OE) and in particular open educational resources (OER). After a brief sketch of international trends in business models for OER and OE, we describe the challenges facing Dutch higher education institutions because of government requirements and developments in the world outside, in particular the rise of massive open online courses (MOOCs). Finally, we present two potential strategic solutions for higher education institutions.

Trends in business models for OER

In Janssen en Schuwer (2012), we introduced Osterwalder's canvas (Osterwalder and Pigneur, 2010) as a means of clarifying a business model for an institution, but also as a way of indicating how a change, for example in the range offered, has effects – or must have effects – on all other aspects of the organisation. In that article, we distinguished three perspectives or approaches that a Dutch higher education institution can select regarding OER, with three different associated types of sustainability:

1. an OER project so as to gain experience, with a funding model;
2. a relatively independent OER activity, intended to generate its own income (revenue model);
3. OER as part of the institution's strategy to provide education for the future.

The number of institutions that say they will be exploring the value and function of OER is increasing (approach 1); this is an international trend. See, for example, the large number of newcomers at the 2012 OpenEd Conference in Vancouver and the growing number of members of the Open Courseware Consortium (OCWC, 2012). More and more complete OER-based courses are also becoming available (OCWC, 2012), generally in the form of projects with external or internal funding. It still appears to be very difficult to apply a sustainable OER-based business model after the pilot phase.

It appeared for a time that Flat World Knowledge (FWK) had a sustainable model (approach 2). It applied a "freemium" business model, in which money is earned by customers paying for OER in printed form. However, the rise of Coursera and Udacity led to FWK adapting the strategy and the business model (Howard, 2012). FWK no longer makes the educational resources available "for free"; they are now exploited commercially. The resources continue to be "open" to the extent that users can alter and add to them. The intention is to continue to use the "wisdom of crowds", but income is necessary in order to guarantee quality.

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The xMOOCs provided by Coursera, Udacity, and others indicate the advent of a new business model (approach 2). The dominant model in commercial distance education is one of education – including testing and certification – on a large scale and at a low price. Revenues are achieved by having a large number of participants. By contrast, the new competitors' model involves providing a complete educational experience, free of charge, created by leading universities such as Stanford, MIT, and Harvard. Parties such as Coursera and Udacity expect to generate their revenues from activities such as testing and certification. A second source of revenues is for third parties to be permitted – on a payment and profit-sharing basis – to make use of copyright-protected materials, with anyone who wishes to take the course having free access. A third source involves the analysis and sale of data that can generate mass participation. A potential fourth flow of revenue is from job placement services, i.e. providing companies with the details of appropriate job candidates from among course participants (in return for payment). See, for example, the details of the contract between the University of Michigan and Coursera (Young, 2012).

It will need to become clear in the next few years whether the new business model is effective, and whether mass participation continues. If that is in fact the case, xMOOCs can become major competitors for open and distance education. Venture capitalists are in any case confident, even if in the way typical of Silicon Valley: build fast, worry about money later.

Two challenges for higher education

In the previous Trend Report, we indicated that we saw the best prospects for higher education institutions when OER could be embedded within their strategy and core activities (approach 3). OER can make a major contribution to the performance and quality of higher education, thus helping tackle a number of challenges.

However, many higher education institutions have neither an overall strategy nor a policy as regards OER. Cost-cutting and performance agreements with the Minister of Education, Culture and Science take precedence (Boon et al, 2012). Nevertheless, the next step can be to make use of the opportunities provided by OER and open education precisely so as to comply with those performance agreements.

What is also relevant is the rapid rise and relatively broad embracing of freely available higher education in the form of MOOCs. Making educational materials

available free of charge – whether or not in the form of OER – is being expanded to the provision of open education (Mulder, 2012). This involves not only providing free materials but also free services such as certification, feedback, and assistance from tutors within discussion forums. As a result, types of education are created that can compete with traditional education (or parts of traditional education). They offer the same product virtually free of charge, an extra-attractive educational method, or a great deal of freedom as regards time and place. The MOOC trend may also be disruptive for the existing education market. Christensen (Christensen et al., 2009) characterises innovations that are disruptive (as opposed to those which are not) as follows:

1. lower gross margins;
2. aimed at smaller target groups;
3. simpler products and services;
4. therefore affordable by a client population that cannot afford the existing products or services;
5. ultimately resulting in improved facilities for customers, meaning that customers are enticed away from existing providers.

Their (partly) open nature means that MOOCs are disruptive mainly for open universities and providers of online learning. After all, providers of MOOCs operate within the same market with a competitive product.

They may also have an impact on normal bricks-and-mortar universities because of developments both within the university and outside it. An increasing number of research universities wish to provide programmes (or parts of programmes) online in addition to on campus, and methods of guaranteed and alternative certification are also being offered (for example by means of "badges"). Examinations for MOOCs can be taken at Pearson test centres in a controlled environment (Boston, 2012). For a few of its open courses, Saylor.org offers assessment (in return for payment) for credits (Saylor, 2012). Accreditation organisations such as the Council for Higher Education Accreditation (CHEA, 2012) and the American Council on Education (ACE, 2012) have now expressed the intention of accrediting MOOCs, thus making their quality apparent.

If this development continues, MOOCs can become important alternative learning pathways – virtually free of charge – not only for lifelong learning but also for initial programmes. This will force higher education institutions to think hard about their position.

From threat to opportunity

As we have seen, many higher education institutions do not seem to be aware of the opportunities that OER and MOOCs can provide in complying with the Ministry of Education's quality agenda and the associated performance agreements. The table below shows how we envisage that contribution.

Quality aspect	Potential contribution of OER/Open Education
Study culture, study success, and quality of education	
Improved coordination within education: - higher-quality intake - better choice of study programme - selective entry requirements	- MOOC as a means of selecting prospective students - OER as an aid to choosing study programme - use of OER for remedial purposes when students go on to a Master's degree programme, for example
Intensive and motivational education	More effective and innovative types of education through availability of external OER, for example flipped classroom (Educause, 2012) or connectivist model for cMOOC (Siemens, 2005)
Excellent educational programmes, more diverse range of courses, more tailored to target group	Broader range of courses through reuse of OER or use of MOOCs, more tailored to target group through combination with more options for intensive and motivational education
International orientation	Higher profile for institution through publication of high-quality OER (internationally attractive for students and researchers)
Clearer profile and greater differentiation in range of courses available	
Greater range of educational programmes	More educational programmes and learning pathways through use of external MOOCs
Flexibility in higher education for people within the workforce	Flexibility and efficiency through blended learning pathways that reuse online OER of MOOC components

Besides effects on quality, OER and MOOCs can also affect efficiency agreements such as those concluded by the Ministry of Education, Culture and Science.

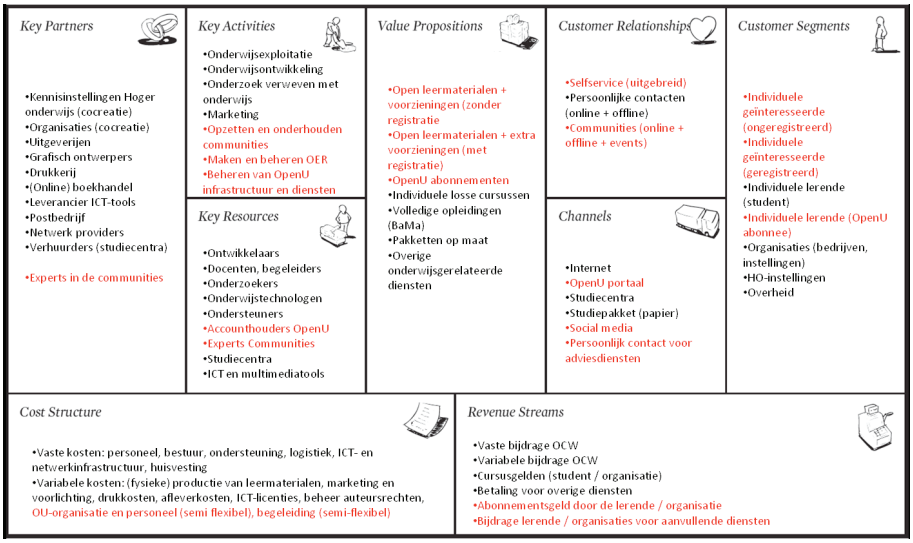
Efficiency aspect	Potential contribution of OER/Open Education
Fewer first-year drop-outs	See entries on higher-quality intake and better choice of study programme in previous table
Duration of studies/success rates	Better quality and also subject offered several times per academic year, with non-standard version being based on OER. See also quality entry in previous table
Educational intensity (contact hours, staff/student ratio)	More efficient educational processes by sharing the programme via online variant; use of OER or MOOCs for efficient development of educational resources
Quality of instructors	Use of freely available educational resources for professional training, including through independent study

Integration of OER into business strategy and model

In order to utilise the potential of OER and MOOCs, higher education institutions will need to include them in the range that they offer. We illustrate what this may mean by giving two examples, using Osterwalder's canvas in order to visualise matters.

Example 1: OpenU at the Open Universiteit in the Netherlands

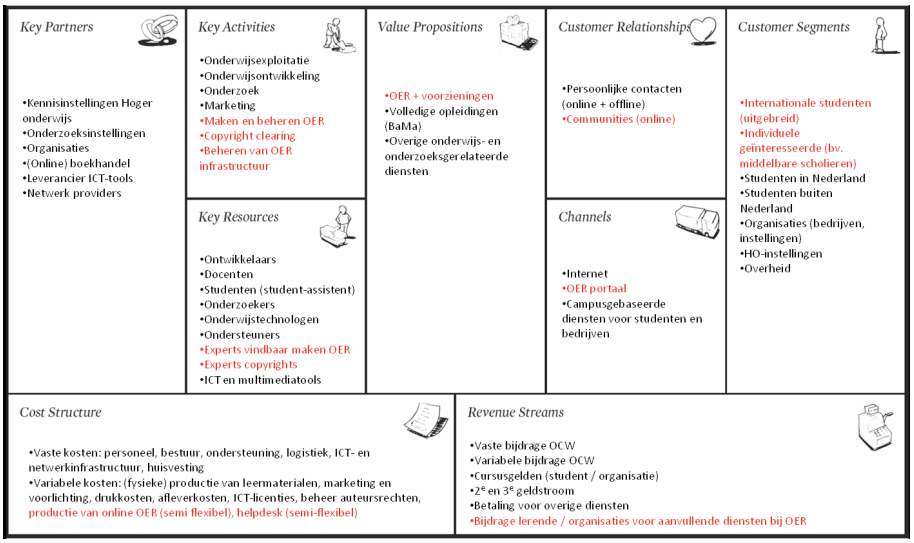
At OpenU, 10% of each Open Universiteit course is provided in the form of OER. Customers can remain anonymous or can register free of charge and create a profile, or can be paying customers. Each individual or organisation can take out a subscription to products or services. Communities are encouraged and all forms of education are provided free of charge, for example online master classes. The following figure shows the consequences for the Open Universiteit's business model. Black indicates what remains the same and red what changes.



The figure shows that all elements that determine the business model have an influence. The richer value proposition allows more target groups to be reached via more channels. The use of communities intensifies and expands relationships with the target groups. Internally, new activities are created, requiring new kinds of expertise. All this leads to extra costs that are primarily associated with the semi-flexible deployment of expertise and supervision because of greater dependence on demand. These additional costs will at least need to be covered by additional revenues via subscription fees and the sale of extra services for freely available course material.

Example 2: "Normal" university begins publishing OER

The second example is of a university that already makes some of its educational resources available within an ELE. It then decides to make the resources for a number of subjects available as OER, so that prospective students (both Dutch and foreign) can get a better idea of what its programmes involve. This decision is implemented across the board and leads to the following changes in the business model. Once again: black indicates what remains the same and red what changes.



The expansion of the value proposition makes it possible to reach a larger target group, which also creates numerous contacts (via the communities). In order to offer OER, the organisation will need to carry out specific new activities, which will also require specific additional expertise. The extra cost of this can perhaps be compensated for because target groups will utilise the OER for different purposes to those originally foreseen, and will want support – for which they will pay – from the institution. Another possibility is a higher intake of students and – because of the higher profile – more money from indirect funding and from contract work.

In conclusion

Every Dutch higher education institution is currently confronted by two issues: how to comply with the performance agreements concluded with the Ministry of Education, Culture and Science and how to deal with the competitive rise of freely available education via MOOCs. In this article, we have shown why and how OER can make a substantial contribution to dealing with both these issues. This does mean that OER will need to become part of each institution's strategy and core activities, which will also lead to their becoming sustainable.

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Illustrations

The figures showing the business model canvas are based on the model at http://www.businessmodelgeneration.com. If this article is reproduced, these figures must be published subject to a CC BY-SA licence.