Article 9 -
Open Educational Resources and "business models"

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Introduction

According to columnist Bill Keller in The New York Times, it will not be long before higher education feels the far-reaching effects of the "disruptive technologies" of the Internet. Postal services, photography, music, libraries, and publishers have already done so, and their business models have been drastically changed. The same may well happen to higher education institutions: a shift from a model based on closeness and exclusiveness to virtual, open campuses and distributed learning, with online open courses that receive assessments as on Amazon.com, with supporting learning services that can be purchased like on eBay, and at which students are assessed on their acquired competencies, for example in gaming, rather than by means of tests and assignments: "the university of wherever".[38] Many people see Open Educational Resources (OER) as an essential feature of a new business model of this kind. But what will such a business model look like? In what ways will it differ from the existing models? What financial and revenue models for OER will be associated with it? Answers to these questions are being sought in various parts of the world. This article presents a brief overview.

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[38] http://www.nytimes.com/2011/10/03/opinion/the-university-of-wherever.html?pagewanted=all

What is a business model?

There are many definitions and interpretations of the concept of a "business model", both in general and also in relation to OER projects. "Business" means more than just earning money and how a company or organisation is structured. It also involves the idea of "doing business" and the strategy and objectives that the company or organisation pursues. It involves the design principles for the company or organisation, a broader meaning expressed by the word "model". The elements, objectives, and design principles are just as important in a discussion of the significance of OER in higher education as financing and income possibilities.

What do we understand by a "business model"? We apply the definition of Osterwalder & Pigneur (2009), who define a business model as "the rationale of how an organization creates, delivers, and captures value".[39]

According to Osterwalder & Pigneur, an organisation's business model can best be described in terms of nine building blocks (see the figure below). These nine building blocks cover the four key components of a business or organisation: the customers, the range, the infrastructure, and the financial viability. The model – which they refer to as the "canvas" – also functions as a blueprint because filling it in makes clear where improvements and changes can be implemented. With their definition and elaborations, Osterwalder & Pigneur provide a clear vision of the key components of an organisation and how they relate to one another. Significantly more aspects are involved in determining how an organisation can best be structured in order to earn money and remain sustainable than just financing or organisation.
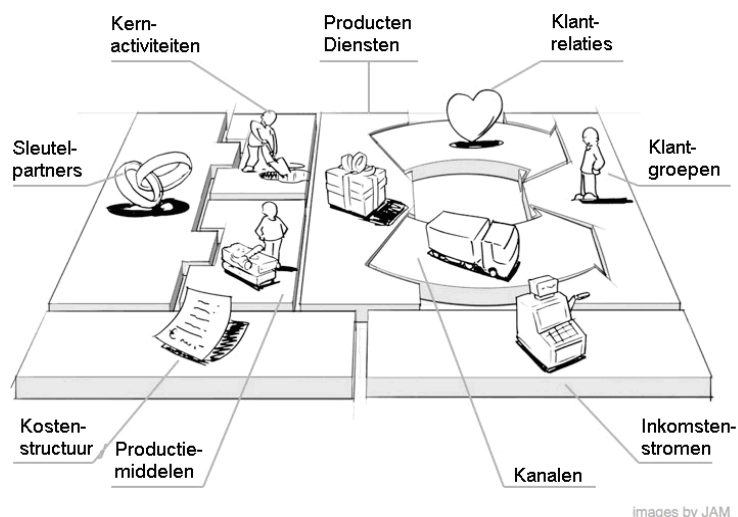
Osterwalder & Pigneur's model can best be read in the following order:
- Customer segments: What existing and new customer segments does the organisation intend serving with its products and services?
- Products and services: What products and services does the organisation intend offering to its customers, and what customer demand (qualitative and/or quantitative) will the organisation meet with those products and services? In other words, what added value does the organisation offer to its customers?
- Customer relationships: What exactly are the relationships that the organisation has with its customers/customer segments?
- Channels: How does the organisation communicate with and reach its customers as regards delivering its products and services?
- Revenue streams: How and in what way does the organisation generate revenue? In other words, what is its revenue model?
- Core activities: What core activities must the organisation perform in order to deliver its products and services via the channels?

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[39] http://www.businessmodelgeneration.com/downloads/businessmodelgeneration_preview.pdf

- Key resources: What physical, financial, human, and ICT resources are needed in order to be able to offer the products and services via the channels and to maintain the relationships with customers?
- Key partners: What partners does the organisation work with in order to deliver its products and services, and what does that collaboration involve?
- Cost structure: What costs does the organisation incur – by itself or together with its partners – in order to deliver its products and services, to keep open the channels, to maintain the relationships, to acquire the key resources, and to implement the core activities? The income and funding streams form part of this.

Business models and OER projects

There are currently hundreds, if not thousands, of OER initiatives all over the world. Many of these are to be found in the highly developed West, but the OER movement is also making great progress in Latin America and Asia.[40] This growth has been accompanied by greater concern with the viability and sustainability of OER projects. In discussions about many OER projects – and above all against them – it is often argued that no convincing business model has as yet been proposed that can offer favourable commercial/economic prospects for the longer term. Too many projects are said to be subsidised, and they are also said to distort competition on the market for learning materials and books. This argument is much too simplistic; worthwhile models are in fact being developed that are also slowly becoming sustainable.

Many OER projects in the past ten years began as relatively independent projects within or at a reasonable distance from an institution or organisation, often with an external grant or funding. This is how MIT's Open Courseware project began, for example, and the same applies to the British Open University's OpenLearn and the Dutch Open University's OpenER. The question at the start of all these projects was where the money would come from to initiate the project, but as soon as the project was under way, that question shifted to how it could continue to be funded. In other words, the focus of intention was the funding model.

In 2007, Stephen Downes presented an overview of the nine proto-typical funding models that he had identified.[41] In fact, his analysis went further than OER projects, also involving such projects as Sakai, RedHat, Ubuntu, and PLOS. In their study for JISC, Kevin Guthrie et al. (2008) identified eight models.[42] Downes' overview is still very useful. The OPAL project utilised his typology, for example, and on that basis established that most of the projects in the British HEA/JISC OER programme are funded by a combination of grants from within the institution concerned and outside. We would be prepared to suggest that this also applies to the majority of other OER projects.

Another perspective that we can distinguish involves the question that arises after the initial phase of an OER project, namely how the project can be organised in such a way as to earn money and be sustainable. We refer to this second perspective as the question of the revenue model. Two entirely different examples of this approach are Connexions and Flat World Knowledge.[43] Connexions provides a platform for sharing learning objects, with the option of using them to create tailor-made textbooks and have them duplicated by means of "printing on demand". It is the printing service that is intended to generate the income for the whole system. Flat World Knowledge is a commercial publisher that focuses on the market for higher education textbooks. One version of every publication is always available by open access, but there are also countless variants of the publication available in return for payment. This approach pays close attention to the users and their wishes. There is a shift in the strategic perspective.

The third perspective that we can identify is the business model for the entire organisation or, in our case, an educational institution; this is the perspective as outlined by Osterwalder & Pigneur. We have applied this perspective in a scenario study for the Dutch Open University; however, not all the results were available when the present article was written. The British Open University is also increasingly implementing its OER strategy in the same way. David Wiley and others also adopt a broader view; in case studies, they indicate that offering learning materials in the form of OER has positive effects

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[40] There is no portal or suchlike giving an overview of OER projects. One of the aims of UNESCO is to make these projects visible.
[41] Stephen Downes (2007) http://ijklo.org/Volume3/IJKLOv3p029-044Downes.pdf
[42] Kevin Guthrie et al. (2008). Sustainability and Revenue Models for Online Academic Resources. http://www.ithaka.org/ithaka-s-r/strategyold/sca_ithaka_sustainability_report-final.pdf
[43] http://www.cnx.org and http://www.flatworldknowledge.com/. See also the blogpost in SURF's OER blog.

on intake in "normal" education.[44] A similar in effect was also measured by the Dutch Open University after the end of the OpenER project.[45] The OER University initiative could also develop in this integrated direction.

In conclusion

Which of the three perspectives or approaches is the best for a Dutch higher education institution depends on a large number of factors. It is relevant whether an OER project is intended as a pilot in order to gain experience (funding model), as a relatively independent activity that generates its own revenue (revenue model), or as part of the strategy to provide education for the future (integrated business model). Another relevant factor are the market segments that the institution serves and aims to continue to serve, and with which services. Finally, it is highly relevant whether the Dutch government will decide to adopt a guiding and facilitating role because of the system-innovating effect that OER can have (see the contribution by Fred Mulder). Consider, for example, the potential consequences of government policy whereby part of the education budget is earmarked for profile funding and for the obligatory production of OER. According to Hal Plotkin, a senior adviser to the Obama administration, this scenario is quite feasible in the near future.[46] Recent experience as presented at the OpenEd 2011 conference in Utah (USA) also indicates a trend whereby OER projects only become viable for a higher education institution when they are embedded within its core activities.

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[44] Justin Johansen & David Wiley (2010). *A Sustainable Model for OpenCourseWare Development.* http://hdl.lib.byu.edu/1877/2353
[45] Robert Schuwer and Fred Mulder (2009). OpenER, a Dutch Initiative in Open Educational Resources. *Open Learning: The Journal of Open and Distance Learning*, 24:1, pp. 67–76. http://www.tandfonline.com/doi/pdf/10.1080/02680510802627852
[46] Hal Plotkin (2010). *Hoger onderwijs opstellen voor meer burgers. Interview in OpenBoek over Open Educational Resources in Nederland.* http://www.ou.nl/c/document_library/get_file?uuid=dd06b533-ec38-4acd-acac-b0d17434e2ea&groupId=10815