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A TYPOLOGY FOR OER BUSINESS MODELS

Robert Farrow, *The Open University, UK*

Correspondence: Robert Farrow: rob.farrow@open.ac.uk

Abstract

This paper provides an update on activity in the innovation and business models strand of the ENCORE+ project. A range of business models that support or draw on open educational resources (OER) have been proposed. This paper reviews models that have been proposed (Tlili et al., 2020; Padilla Rodriguez et al., 2018; Belleflamme & Jacqmin, 2015; Ubachs & Konings, 2016; and Farrow, 2019) and suggests a synthesis into one typology of OER business models. The ENCORE+ OER Business Model Typology has been developed as part of a wider effort to understand and evaluate economically sustainable approaches to OER as well as to formulate OER value propositions for different stakeholders. In related work, a range of OER innovation case studies (N=48) are being prepared for publication. These will illustrate different instances of innovation with OER and show how OER actors understand their value proposition to different audiences.

Keywords:

Open Educational Resources (OER) – Open Educational Practices – (OEP) – Innovation – Evaluation – Business Models – Sustainability

Introduction

The European Network for Catalysing Open Resources in Education (ENCORE+, n.d.) is a pan-European Knowledge Alliance funded under the Erasmus+ programme. The project is running from 2021 to 2023 to support the modernisation of education in the European area through open educational resources (OER). OER are “teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions” (UNESCO, n.d.).

One key strand ENCORE+ of work pertains to OER innovation and OER business models. ENCORE+ works with diverse stakeholder base to identify, synthesise and share strategies and business models across business and higher education. The pedagogical value of OER is now well established and OER can support improved learner performance and pedagogical innovation (Weller et al., 2015; Hilton, 2016); however, awareness of OER in the business world is very low and there are few business models that truly leverage the affordances of open licences (BizMOOC, 2019). This paper reports on the development of the conceptual framework being used in the ENCORE+ network to describe and discuss different approaches to OER business models and sustainability.

OER business models: the search for sustainability

Several recent papers and studies have articulated different archetypal business models for OER. This section describes outcomes from these studies. Konkol et al. (2021) recently wrote about OER business models and sustainability. They frame this in terms of what they call the paradox “that generating revenue out of OER is not intended, but ignoring income can make OER unsustainable”. This reflects the tension between traditional models based around competition and newer, “open” paradigms based around collaboration. Konkol et al. (2021) propose the following business models relevant to OER:

- The *Selling course experience model* or “Freemium” model where educational materials (e.g., slides, texts, data) are offered for free. Sustainability here is derived from income streams offered alongside this, such as answering questions, giving feedback on submissions, supervising research and examination, and certification.

- In the *Governmental model*, national and international governmental agencies provide funding for creating OER. This (along with philanthropy) is how a lot of OER has traditionally been funded but is rather dependent on the political and strategic priorities of those outside the business itself.
- Operating in a similar fashion but at a smaller scale, the *Institutional model* sees higher education providers set aside some part of their budget for OER programmes. This is often implemented in ways that are consistent with the philosophy of open, but again involves competition for scarce resources without much in the way of longer term capacity building. There is also the risk that strategic priorities can change quickly.
- The *Online Programme model* is realised by extending presence-based education to online or blended courses. This content is typically only accessed by registered students rather than being truly “open”. This approach has perhaps become more common with the pivot to online education resulting from the Covid-19 pandemic.
- The *Substitution model* which sees cost savings from redundant services (e.g. obsolete systems) being redirected towards OER programmes.
- In the *Community-based model*, the members of an OER community or network collaboratively create and use OER. Revenue can be generated by hosting the required infrastructure or charging for related activity.
- The *Donations model* involves donations from, e.g., foundations, society, industry, government, or non-governmental agencies. This form of funding is very dependent on external sources and can be seen as a scaled down version of the philanthropic model with obvious risks – but could still work in the case of, for example, significant endowments.
- In the *Institutional subscriptions model*, the provider makes educational materials accessible to institutions who subscribed as paying members (Okoli and Wang, 2015). Individuals who are part of these institutions can access the materials.
- Along similar lines we have the *Sponsorship/Advertising model* which relies on generating revenue by exposing students to commercial messages. Perceived by many to be both unethical and antithetical to the goals of education, this model also raises questions about what is involved in the transaction between educator, learner and sponsor as well as the metrics by which success is evaluated.
- Perhaps somewhere between the community and revenue based models we find the *Membership model* which relies on organisations contributing to the university with money, services, and goods in exchange for privileges such as early access to roadmap decisions and code releases. This requires a good fit between the priorities of the university/business and those of the sponsor over time in order to be sustainable.
- The *Selling data model* generates revenue by selling data about the activities of those using a learning environment
- The *Consultancy, training, and support model* sees institutions offer professional services around the use of OER
- Finally we have the *Author pays model* where publishers generate revenue by charging content creators (as in the case of article processing charges, for instance). (Approaches like this have been seen to favour those who have access to funding and discriminate against less established professionals or those from areas where less funding is structurally available.)

Tlili et al. (2020) report on the outcomes of a Delphi study. They propose the following 10 OER Business Models:

- Through *Internal funding* of higher educational institutions
- Leveraging *Sustainable OER networks* to reduce costs
- Through *Public funding*
- Based on *Endowments and donations*
- Offering *Services to learners*
- Offering learning-related *Data to companies*
- Producing *OER on demand* as an area of entrepreneurship
- Relying on the voluntary efforts of *OER authors*
- Relying on other *Stakeholder communities* to provide labour or services

Belleflamme & Jacqmin (2015:155-162) suggest the essential features of six potential business models based around offering services around OER content:

- *Platformization* (e.g. MOOCs) facilitates interactions between stakeholders and subsidises the participation of each side
- The *Certification model* sees charges made for certification of learning with OER. This retains the degree as the prestige qualification and makes revenues depend on completion, not enrolment.
- The *Freemium model* often sees free learning followed by paid content, and monetary benefits may be hard to calculate (Littlejohn & Hood, 2018:104).
- The *Advertising model* offers an online route to monetization but potentially at the cost of negative effects on learning; brand,
- A *Job matching model* could use user data to address asymmetry in job market information (c.f. GMV Conseil, 2018) although continuous monitoring raises privacy concerns and the approach is still largely unproven in practice.
- The *Subcontractor model* outsources some core HEI function to MOOC platform

Padilla Rodriguez et al. (2018:2) review five business models for MOOC

- *Integration with mainstream education* (supplementary courses; upselling; offering credits; additional services).
- A *Freemium approach* with charges for additional services such as examination.
- *Partnerships with enterprises* such as with a focus on human resource development)
- *Involvement of target audience* communities through peer assessment, moderation, support to reduce costs
- *Philanthropy* where funding is provided by charity/foundation/NGO/government

ENCORE+ OER Business Model Typology

Existing attempts to describe OER business models are diffuse and unsystematic, with overlapping concepts. The introduction of a consistent typology is a route to amelioration and understanding (Doty & Glick, 1994) as well as consistent language and terminology (Grant & Booth, 2009). Typologies are typically formed by grouping cases into types on the basis of common features (Stapley et al., 2022). This process is grounded in deduction but inevitably involves some subjective judgement in cases where the features of cases are qualitative and interpretative.

The ENCORE+ project has rationalised the above into 14 types organised into 4 categories below. Models are distinguished according to four categories. These categories are characterised by the revenue sources associated with a set of models: external to an organisation; internal to an organisation; funded by community; or service based models. The proposed typology is a synthesis of Tlili et al., 2020; Padilla Rodriguez et al., 2018; Belleflamme & Jacqmin, 2015; Ubachs & Konings, 2016; and Farrow, 2019 in that it draws on the findings of these studies to determine a set of characteristics, then reconstructs these. This typology is rational and consistent, accommodating the types identified in the literature more simply and without contradiction. The typology is made available on an open licence for others to use and comprises part of the OER Innovation Evaluation Framework used in the ENCORE+ project.

Table 1: ENCORE+ OER Business Model Typology

Category	Business Model	Description
Externally funded	<i>Donations Model</i>	Funding from donations or grants, e.g., foundations, society, industry, non-governmental agencies
	<i>Governmental Model</i>	National and international governmental agencies providing funding for OER
	<i>Sponsorship / Advertising Model</i>	Generating revenue by exposing learners to commercial messages
Internally funded	<i>Institutional Model</i>	Higher education providers setting aside some part of their budget for OER programmes
	<i>Substitutions Model</i>	Cost savings from redundant services (e.g. obsolete systems) are redirected towards OER programmes
	<i>Author pays Model</i>	Publishers generate revenue by charging content creators
Community funded	<i>Community based</i>	Members of a community or network collaboratively create and use OER, generating revenue through services and/or infrastructure
	<i>Membership Model</i>	The Membership model relies on organizations contributing to the OER provider with money, services and/or goods

	<i>Platformization</i>	Organises stakeholders around a digital ecosystem, facilitating interaction and generating insights
Higher Education Service Models	<i>Data Exploitation Model</i>	Generates revenue by selling analytic data about the activities of those using a learning environment
	<i>Dual-Mode University</i>	Use of OER in an online course (e.g. Massive Open Online Course) to develop a distance learning or virtual university operation
	<i>Freemium</i>	Educational materials are offered for free and sustainability is derived from subsequent income streams offered alongside this (e.g. assessment or access to a larger curriculum)
	<i>Online Programme</i>	Extending presence-based education to online or blended courses
	<i>Segmentation Model</i>	Commercializing a service relating to OER (such as printing open textbooks; providing assessment or certification of learning)

Understanding OER Innovation

Another ENCORE+ activity strand has audited innovation related behaviours for a range of organisations that use OER. OER is of course an innovation in teaching and learning practice, but the practices associated with using OER can themselves be a foundation for further innovation (Coughlan et al., 2019). This potential is often overlooked for being highly contextual or marginal to the key focus of OER initiatives, yet the culture of innovation that exists alongside many OER projects and in the practice of open educators is a key attraction for many working in the field.

More than OER innovation 40 case studies have been prepared and a selection of these will be presented with a critical commentary in the summer of 2023. Alongside this, the related evaluation framework is being shared on an open licence for others to use and better understand the role of innovation in their own OER practice. The ENCORE+ OER Business Model Typology is part of the evaluation frameworks and data is being collected to map real life examples of each business model type. These achievements build on various aspects of theoretical work conducted in the last two years (Farrow & Granly, 2021; Farrow, 2022) as well as a series of face-to-face and online stakeholder events conducted within or as part of the ENCORE+ network.

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