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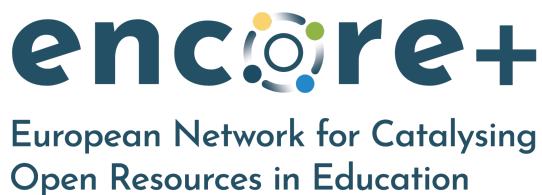## European Network for Catalysing Open Resources in Education

ENCORE+ Innovation Evaluation Toolkit

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Version 1.0 - October 2023

encore+

European Network for Catalysing Open Resources in Education

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The Open University (UK)

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Introduction

This document provides a conceptual framework for the evaluation of examples of innovation which uses the affordances of open educational resources (OER). OER are teaching and learning materials that are either in the public domain or published on an open licence which permits various forms of redistribution, reuse and repurposing. Many organisations and higher education institutions around the world are using such resources, and anecdotally many believe this is supporting innovations in practice. However, there is little guidance available for how such innovations should be understood or evaluated conceptually.

In the ENCORE+ project we developed a framework for understanding innovation with OER and used this as the basis of a stakeholder survey. There were two goals for this activity. Firstly, to generate brief but useful case studies which illustrate a range of different instances of OER. These provide concrete examples of implementing OER in different circumstances and reflections from project leads on their experiences and lessons learned. The second goal was to validate the framework being used to evaluate the cases. The goal of this evaluation was not to judge different instances as superior or inferior to one another but to provide a new set of concepts and language for thinking about the relationship between OER and innovation.

The framework and its conceptual foundation can be found below, and the complete survey (which is free to reuse or adapt) is made available after that. The evaluation rubric is presented as a reflective tool which can be useful for thinking about a particular implementation of OER, but value is added by using the framework in conjunction with the showcase of OER innovation that was created using the framework (D6.3). This collection of cases can be found on the ENCORE+ website with the evaluation framework integrated. While the evaluation tool can be used on its own, comparing with other cases and instances of innovation allows greater insights into the different contexts of application and the ways in which innovation behaviours are interpreted and supported.

This framework is openly licensed CC BY which means you are free to adapt, copy, remix and reuse in any way as long as attribution is provided.

Some additional business model tools (which are also openly licenced) are included as appendices.

Conceptual Foundation

The framing work on innovation that informs the design of this tool includes Rogers (2003); Carroll, Kellogg & Rosson (1991) and Puentedura (2006). OER related practices (Q3) are being conceptualised through the SAMR framework (Puentedura, 2006) and Darwish's (2019) model of edupreneurship. Business strategies are aligned with the 'defenders and prospectors' indicators (Miles & Snow, 1978; Orr et al., 2018).

The ENCORE+ OER business model typology is synthesized from Tlili et al. (2020); Padilla Rodriguez et al., (2018); Belleflamme & Jacqmin (2015); Ubachs & Konings (2016); and Farrow (2019). The list of learning technologies is derived from Orr et al. (2018).

The stakeholder value proposition and impact matrices combine categories from Rogers (2003) and the Cabinet Office 'UPIG' or 'CPIG' stakeholder model (no citation). This is a simple yet versatile stakeholder model which was chosen because of its ability to accommodate a wide range of implementation scenarios. ENCORE+ is focused on the OER ecosystem as a whole but others using the framework may prefer to substitute a localised understanding of stakeholders or alternative stakeholder model.

Stakeholders

ENCORE+ embraces an understanding of the relevant stakeholders that is ecosystem wide, incorporating perspectives from education and business. The following table, which uses the UPIG categories, summarises a possible view of this ecosystem. UPIG (users, providers, influencers, governance) is a simple stakeholder model which can accommodate a wide range of types and use cases. The presentation here also describes differences of scale (macro, meso, micro). The ENCORE+ stakeholder map was validated through feedback from various groups of relevance at workshops, presentations and online events. (See the ENCORE+ website for more details.) This forms the basis for understanding how the findings can be applied to concrete groups - though of course not all factors are relevant to all parties.

	USERS	Repositories	Publishers	PROVIDERS	INFLUENCERS	Leaders	Broadcast Media / Social Media	Policymakers	Management	GOVERNANCE
MACRO	MOOC Providers National/ International Education Providers National & International Training Providers Open Education Initiatives	Repositories	Publishers	Ed Tech Companies Infrastructure Providers Technology Providers	Funders International Development Agencies International Education Partnerships Lobbyists NGOs Philanthropy	Leaders	Broadcast Media	Policymakers	Management	Student Assessment and Testing Organizations Standardization Bodies Quality Assurance Agencies Ministries
MESO	Companies and Employers Continuous Education Industry and Corporate Sector Lifelong Learning Initiatives Training Providers			Collections Course Providers Galleries, Libraries, Archives, Museums Open Access Publishers Open Source Software Communities	Advocacy Groups Charities Education Associations Open Data and Open Science Communities Open Education Communities Professional Associations Professional Organizations Researchers & Scientists Student Organizations: Trade Unions and Labor Organizations					Local Governments and Municipalities Evaluators Educational Authorities Copyright and Intellectual Property Experts
MICRO	Community-Based Organizations Educators Instructional Designers Learner Support Services Learners Workers			Content Creators Education Technology Startups Libraries Remixers	Accessibility and Inclusion Advocates Advocates of OER Education Consultants Institutional actors Learning Analytics Experts Parents and Guardians Private Foundations and Donors		Social Media			Copyright/Data Officers Higher Educational Institution decision makers Student Governments

ENCORE+ OER Stakeholder Model

OER Innovation Evaluation Framework

Basic Information

You can begin the process of completing the framework by recording basic information about your case, including the size and scale of your operation, your user base, and key challenges faced.

Case Name:		**What is your offer?**
Organisation:		**Key Challenges:**
URL:		1.
User base (size):		2.
		3.
Scale of operation:	(Micro/Meso/Macro/International)	

Strategic Focus

This prompt invites reflection on a series of binaries which can be thought to define a strategic approach. Thinking about each of the categories can facilitate understanding of how and where the approach is innovative and different (as opposed to more traditional). This is not to imply that more 'innovative' approaches are always preferable since a highly targeted approach in one or two areas might be more successful.

Products & Services	Target Group(s)	Advantage of approach
Core provision **or** Complementary / Alternative	Traditional **or** Non-traditional	Traditional competence **or** Emergent, innovative approaches
Sustainability & Revenue	**Network**	**Communication Channels**
Efficiencies, cost-cutting **or** new revenue processes	Traditional, institutional **or** non-traditional, dynamic	Traditional **or** new/virtual channels
Value Added		
Legacy/traditional knowledge **or** New, innovative approaches		

Business Model(s) & Sustainability

A range of business models have been proposed for OER. The ENCORE+ project has rationalised these into 14 types organised into 4 categories below. In practice models are often combined, but it can be helpful to think about how efforts can be focused.

Category	Business Model	Description
Externally funded	*Donations Model*	Funding from donations or grants, e.g., foundations, society, industry, non-governmental agencies
	Governmental Model	National and international governmental agencies providing funding for OER
	Sponsorship / Advertising Model	Generating revenue by exposing learners to commercial messages
Internally funded	*Institutional Model*	Higher education providers setting aside some part of their budget for OER programmes
	Substitutions Model	Cost savings from redundant services (e.g. obsolete systems) are redirected towards OER programmes
	Author pays Model	Publishers generate revenue by charging content creators
Community funded	*Community based*	Members of a community or network collaboratively create and use OER, generating revenue through services and/or infrastructure
	Membership Model	The Membership model relies on organizations contributing to the OER provider with money, services and/or goods
	Platformization	Organises stakeholders around a digital ecosystem, facilitating interaction and generating insights
Higher Education Service Models	*Data Exploitation Model*	Generates revenue by selling analytic data about the activities of those using a learning environment
	Dual-Mode University	Use of OER in an online course (e.g. Massive Open Online Course) to develop a distance learning or virtual university operation
	Freemium	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)
	Online Programme	Extending presence-based education to online or blended courses
	Segmentation Model	Commercializing a service relating to OER (such as printing open textbooks; providing assessment or certification of learning)

Pedagogy & Technology

A range of different ways to organise teaching and learning using OER have been proposed. This section encourages reflection on the specific ways you're approaching or understanding this. What difference is OER making to your practice?

Pedagogy	Technologies
What kind of pedagogy (theory of learning) informs your practice relating to OER?	How are you using technologies to innovate or enhance the offer to your stakeholders?

OER Implementation

OER use can involve simple substitution of course materials or to support more transformatory approaches.   The SAMR framework (Puentedura, 2006) is used here to provide a conceptual framing for this spectrum and a maturity model for OER innovation..

Substitution	Augmentation	Modification	Redefinition
OER substituted for proprietary content with no functional change	Substitution of OER for proprietary content with functional change or task redesign	OER use allowed for significant redesign of tasks or functions associated with teaching/learning	Using OER allowed for new ways of conceiving teaching and/or learning

Stakeholders

We've suggested the UPIG model for its flexibility but you could use an alternative. In the table below we present different OER stakeholder as recorded during the ENCORE+ project. (Your own specific configuration could involve others.)

Value Proposition & Impact

How would you describe the value proposition you make to different stakeholders regarding the use of OER? What has been the impact of your work on your stakeholders so far?

	Value Proposition	Impact
USERS		
PROVIDERS		
INFLUENCERS		
GOVERNANCE		

Barriers and Enablers

It can be helpful to think about factors which facilitate or impede your OER activity, supporting or preventing you from realising your goals and innovating in the desired direction. Here a range of generic types are presented (your own context may involve other factors).

Category	Factor	Barrier	Enabler
Practitioner (e.g. educator, manager, librarian, etc.)	Attitude		
	Skills		
	Personal characteristics		
	Decision processes		
	Culture		
	Awareness of issues		
Organization (e.g. school, university, business, initiative)	Capacity, resources & finance		
	Management structure/processes		
	Organizational culture		
	Leadership		
	Open educational practices		
	Policy change (internal)		
Evidence Base	Existence of evidence		
	Accessibility of evidence		
	Relevance & applicability		
	Quality of evidence		
	Research-practice links		
	Other evidence factors		
Technology & Infrastructure	Internet access		
	Open source software		
	Proprietary software		
	Virtual Learning Environment(s)		
	Other infrastructure		
Community	Social context		

	Stakeholder relationships		
	Responding to authentic learner needs		
	Regulatory environment		
	Policy change (external)		
Other factors	Other		

Diffusion of Innovations

Innovations spread because people understand the difference they can make. The following grid (based on Rogers, 2003) encourages reflection on specific innovation vectors. Which factors are relevant to the uptake of OER and innovative approaches for your stakeholders? (You can use the UPIG model here or substitute your own.)

	Relative advantage	Compatibility with existing practice	Simplicity of use	Trialability	Observability of results
USERS					
PROVIDERS					
INFLUENCERS					
GOVERNANCE					

Concluding Reflections

Having completed the above sections, you are encouraged to reflect on your innovation trajectory as a whole. Not every aspect of activity needs to be radical and transformational, but cultivating an innovation 'mindset' can highlight opportunities and strategies for the future.

Think about your key challenges, your business model, your use of OER, how technology supports this, what kinds of barriers and enablers might have relevance, and what actions could be taken to support innovation with (or through) OER in your context.

[END OF FRAMEWORK]

Tools

ENCORE+ OER Innovation Survey

Below you can find a copy of the survey instrument used to collect data for the case studies in OER innovation. These questions are openly licensed [CC BY 4.0](#) so you are free to reuse them with attribution. (You can find a suggested attribution on the first page of this document.)

Good practice for survey research includes the following elements:
- Providing information about the purpose of the survey
- Making it clear who should complete the survey
- Explaining what will happen with the data, particularly if it will be publicly available
- Explaining how one can withdraw from the research or request the destruction of their data.

In the presentation below these elements have been removed, but they were present in the original distribution.

Basic Information

This section collects information about your case example. A 'case' may be a business, project or other kind of initiative.

a. Name of your case:

b. Type of case (drop down):
- Project
- Institution
- Initiative
- Business
- Other (please describe)

c. Location (your town, city or region):

d. Country (drop down):

e. URL of your project/institution/initiative/business:

f. What is the approximate size of your user base (e.g. learners, customers and/or other stakeholders)

g. How would you describe the scale of your implementation case (select one):
    ● Micro (Institutional / Local)
    ● Meso (Regional / Federal)
    ● Macro (National)
    ● International

h. Your name:

i. Your role:

j. Your organisation:

k. Your email (this won't be published):

l. Stay informed about this study? (selected by default)

Strategic Approach

a. Please select one box per line to indicate either Defender-like approach (focused on existing, established markets/strategies) or Prospector-like approach (focused on new markets/strategies)

Core aspects	Defender-like approach		Prospector- like approach	
Products and services	Focus on core institutional educational provision		Focus on provision which is complementary or alternative	
Target group	Existing markets / learners		New (or nontraditional) markets / learners	
Communication channels	Traditional		New or innovative channels (physical or virtual)	
Legacy or new value chain	Making the most of legacy knowledge		Exploration of new approaches and innovation	
Competitive advantage	Traditional competences (e.g., market knowledge, expertise, improvement of existing technology)		Newer, unfamiliar, competences (e.g., new or emerging technologies, innovation in working practices)	
Networks	Traditional institutional or cultural		Nontraditional or (dynamic) networks (e.g., alliance, joint-venture)	
Profitability and sustainability	Cost cutting and efficiencies		New processes to generate revenues, or cost-cutting in existing processes	

b. Please provide a short statement which describes the activities and/or mission for your OER implementation case. (Free text, limit 100 words)

Innovation Aspects

a. This section collects information about the ways in which the case is innovative. Please choose **one** of the following 4 options that best describes your OER implementation in relation to the use of educational or training materials. You can use the notes field to explain or provide more detail.

	Select	Notes
Substitution *OER substituted for proprietary content with no functional change*		
Augmentation *Substitution of OER for proprietary content with functional change or task redesign*		
Modification *OER use allowed for significant redesign of tasks or functions associated with teaching/learning*		
Redefinition *Using OER allowed for new ways of conceiving teaching and/or learning*		

b. What do you see as the barriers and enablers for your case? Select as many as relevant (Please add notes to explain where appropriate)

Category	Factor	Barrier	Enabler	Notes
Practitioner (e.g. educator, manager, librarian, etc.)	Attitude			
	Skills			
	Personal characteristics			
	Decision processes			
	Culture			
	Awareness of issues			
Organization (e.g. school, university, business, initiative)	Capacity, resources & finance			
	Management structure/processes			
	Organizational culture			
	Leadership			
	Open educational practices			

	Policy change (internal)			
Evidence Base	Existence of evidence			
	Accessibility of evidence			
	Relevance & applicability			
	Quality of evidence			
	Research-practice links			
	Other evidence factors (please describe in notes)			
Technology & Infrastructure	Internet access			
	Open source software			
	Proprietary software			
	Virtual Learning Environment(s)			
	Other infrastructure (please detail in notes)			
Community	Social context			
	Stakeholder relationships			
	Responding to authentic learner needs			
	Regulatory environment			
	Policy change (external)			
Other factors	Other (please detail in notes)			

Business Model

a. Which of the following best describes your business model? (Select **one** and add details if needed)

Category	Business Model	Description	Selection	Notes
Externally funded	*Donations Model*	Funding from donations or grants, e.g., foundations, society, industry, non-governmental agencies		
	Governmental Model	National and international governmental agencies providing funding for OER		
	Sponsorship / Advertising Model	Generating revenue by exposing learners to commercial messages		
Internally funded	*Institutional Model*	Higher education providers setting aside some part of their budget for OER programmes		
	Substitutions Model	Cost savings from redundant services (e.g. obsolete systems) are redirected towards OER programmes		
	Author pays Model	Publishers generate revenue by charging content creators		
Community funded	*Community based*	Members of a community or network collaboratively create and use OER, generating revenue through services and/or infrastructure		
	Membership Model	The Membership model relies on organizations contributing to the OER provider with money, services and/or goods		
	Platformization	Organises stakeholders around a digital ecosystem, facilitating interaction and generating insights		
Higher Education Service Models	*Data Exploitation Model*	Generates revenue by selling analytic data about the activities of those using a learning environment		
	Dual-Mode University	Use of OER in an online course (e.g. Massive Open Online Course) to develop a distance learning or virtual university operation		
	Freemium	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)		
	Online Programme	Extending presence-based education to online or blended courses		
	Segmentation Model	Commercializing a service relating to OER (such as printing open textbooks; providing assessment or certification of learning)		

OER Value Proposition

How would you describe the basic value proposition to your stakeholders in this case of OER implementation? (These could include things like convenience, improved experiences, reliability, efficiency, productivity, reduced risk, preferential terms, building trust, improved functionality, enhanced services, price competition,

Complete for each relevant stakeholder group (free text)
   a. Users (Learners or customers)
   b. Governance (management, steering groups, regulators, etc.)
   c. Influencers (policymakers, investors, media, trade unions, etc.)
   d. Providers (educators, trainers, suppliers, infrastructure, vendors, etc.)

Technical Aspects

   a. Select all technologies that apply to this case in the development and/or use of OER
      ● Artificial Intelligence
      ● Blogging / Microblogging
      ● Bring Your Own Device (BYOD)
      ● Digital Badging
      ● E-portfolios
      ● Flipped Learning
      ● Learning Analytics
      ● Learning Management System (LMS)
      ● Massive Open Online Course (MOOC)
      ● Microcredentials
      ● Mobile Learning
      ● Online Assessment(s)
      ● Open Educational Practices (OEP)
      ● Open Educational Resources (OER)
      ● Open Pedagogy
      ● Social Media
      ● Teleconferencing
      ● Videoconferencing
      ● Virtual Learning Environment (VLE)
      ● Webinars
      ● Wikis
      ● Other (please describe)

b. Please use this section to describe any important or innovative technological aspects of the OER implementation - what did you do differently? (free text)

Teaching, Learning & Training

a. Please provide a textual description of the case, including details about the OERs being used and how they are implemented (300 words max, free text):

b. Please use this section to describe the pedagogies or theoretical approaches used in the design of the OER and/or in the implementation (200 words max, free text):

c. What were the top three challenges that had to be overcome in the implementation of OER in this case? (select up to 3, ranked in order of importance)
   - Budget & finance
   - Building awareness
   - Changing culture/practices
   - Communication Issues
   - Interpersonal relationships
   - Project Management
   - Regulatory or policy environment
   - Risk management
   - Scope Creep
   - Skills development
   - Technological implementation
   - Time pressure
   - Vision and setting objectives
   - Other (please detail)

d. What was your approach to overcoming these challenges? Did you find a new approach that addressed your issues? (free text)

Culture and Processes

Thinking about your organisation, please indicate your agreement with the following statements by selecting an option per line.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Leadership provide clear guidance on innovation strategy					
Innovation is clearly aligned to our organisational strategies					
Management provide the time and space needed to develop and implement ideas					
Our decision making is top-down					
Our decision making is middle-out					
Our decision making is bottom-up					
My organisation is open to new and innovative approaches					
Innovation activity is a part of daily activity and tasks in this organization					
Our staff are empowered to develop their capacity for innovation					
Our leaders recognise the innovation achievements of our staff					
Our organisation has clearly identified innovation champions					
Our organisation captures, documents and shares ideas from diverse roles					
We apply agile approaches to meet challenges					
We apply best practices to the flow of information within our organization					
We have a management system for tracking innovation					
We have systems in place to recognise and reward innovation behaviours					
Key performance indicators (KPIs) are used to track and analyse innovation behaviours					
Our organisation is committed to a continuing and meaningful evaluation of best practices					
Our organisation responds quickly to adopt/adapt new ideas and approaches					

Impact and Diffusion

Please use this section to describe the impact of the OER implementation for your stakeholders (free text per category)

    a.

        i.   Users (Learners or customers)

        ii.   Governance (management, steering groups, regulators, etc.)

        iii.   Influencers (policymakers, investors, media, trade unions, etc.)

        iv.   Providers (educators, trainers, suppliers, vendors, etc.)

    b.   Please add a tick/check to any parts of the grid to indicate where you believe the project had effective routes to impact.

	Relative advantage (perceived as better than competition)	**Compatibility** (Understood in relation to existing practice)	**Simplicity** (Easy to pick up the new service or product)	**Trialability** (Ease with which target markets can try service or product)	**Observability** (Results are visible or noticeable)
Users (Learners or customers)					
Governance (management, steering groups, regulators, etc.)					
Influencers (policymakers, investors, media, trade unions, etc.)					
Providers (educators, trainers, suppliers, vendors, etc.)					

    c.   Do you feel that your OER implementation met its aims? (YES/NO/PARTLY + comments)

    d.   Were there any unexpected outcomes from the implementation of OER in this case? (free text)

    e.   What advice would you have for someone else who was considering moving in a similar direction with OER? (free text)

    f.   What are your future aspirations for OER? (free text)

[SURVEY END]

Business Model Canvas

The Business Model Canvas is a tool for documenting and developing business models. It highlights a range of key considerations and can be used for collaborative work. It's made available on a CC BY SA licence. You can download the template from https://www.strategyzer.com/.

This template can be used to conceptualise, plan and strategise business activity around an OER implementation. See the following examples of where the Business Model Canvas has been used in open education contexts:

- OERu https://wikieducator.org/images/5/58/OERu_Business_Model_Brochure.pdf
- Open Universiteit in the Netherlands https://www.robertschuwer.nl/download/Trends_businessmodellen_EN.pdf
- Lumen Learning https://docs.google.com/drawings/d/1l-kSBcCCupbBGOvxZkRy3hOkcnqZuLTmeFuMmlC
- Business Model Canvas for OER Programs https://dt.athabascau.ca/jspui/bitstream/10791/306/5/SingerIsFreeMoreExpensiveThanCommercialJan2020.pdf (p.134)

Edupreneurship Business Models

The following table (taken from Darwish, 2019) shows how different uses or presentations of resources can be associated with different revenue models and operational considerations. It is mainly focused on institutional provision, but can still be a useful reflective tool.

Model	Definition & providrs'motivations	Technical requirement, organization & management	Revenue streams & issues
Static	This model is content-based (content aggregation &curation) for supplementary use (e.g. repositories, libraries & courseware) .... **Motivations of provider:** Making educational material available for free &/or creating relationships with the educational community	open-source platform (e.g. ATutor & WordPress blogs) .... **Organization:** Classification & categorization model , search engine for updating **Management:** DIY, system development .... Community production, collaboration & sharing.	**Revenue:** None, Donation, subsidizing model .... **Issue:** Members participation is not sustainable and updated Lack of committed members
Interactive	IMM Courses/ products for self-study & blended learning (xMOOCs, Edutainment & Games) .... **Motivations of provider:** Production-based Industry/Business	platform with interactive learning environment such as OpenMOOC multimedia authoring software and audio/video production equipments .... **Organization:** On-site studio production, IMM learning theory and approaches, AI scenarios, ... **Management:** Meetings with institutions & agreeing on the business model or models	**Revenue:** Based on level of interaction and optimization of user experience .... **Issues:** Updating material isn't feasible, production for different platforms
Dynamic	Online courses/ blended learning .... **Motivations of provider:** Distance & Online learning (Online learning environment. cMOOC)	LMS; Moodle &JoomlaLMS .... **Organization:** University centre .... **Management:** Regulations & Policies for online degree	**Revenue:** Units of courses, Online degree Accomplishment/ degree .... **Issues:** Quality of learner participating content, Workload of instructor
Transformative	Service-based/Career-based Courses/ .... **Motivations of provider:** Tailoring projects/ On job training	platform with interactive learning environment such as Second life/ game development environments MOOCs/Object Oriented software and audio/video communication channels ---------------- .... **Organization:** scheduled, Real time online communication .... **Management:** Recruitments/ Needs Analyses of the market & industry/ transdisciplinary team management/ intermediating contracts between institutions & industry	**Revenue:** Platforming/ Brokerage Model: Marketplace Exchange Efficiency/ service-network .... **Issues:** Outsource parties commitment

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Website

For further and updated information about this project please see:

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