Opening up Education through the use of Digital Technologies:

A support framework for Higher Education Institutions

Yves Punie, Andreia Inamorato dos Santos & Jonatan Castaño

JRC-Institute for Prospective Technological Studies

2016 EUA Annual Conference
Galway, 7-8 April
Joint Research Centre
the European Commission's in-house science service

7 institutes in 6 locations

IPTS
The Institute for Prospective Technological Studies in Seville evaluates the socio-economic aspects of any issue at stake. It's located in Seville.
- Policy studies 45%
- Policy intelligence platforms 15%
- Techno-economic bureaux 15%
- Economic Models 25%

IRMM

IET
Institute for Energy & Transport.

ITU
Institute for Transuranium Elements.

ISM (ISPRA)
Ispra Site Management.

IES
Institute for Environment & Sustainability.

IHPC
Institute for Health & Consumer Protection.

IPSC
Institute for the Protection & Security of the Citizen.
ICT for Learning and Skills (2005 - ...)

What:
- ICT for modernising and innovating E&T in Europe
- 21\textsuperscript{st} century skills for digital economy and society

Why:
- Evidence for more effective and relevant E&T in Europe

Team

> 80 publications freely downloadable
- Principal clients: DG EAC & DG EMPL

Policy
- 2013 COM on Opening up Education; E&T 2020; Digital Agenda; New skills and Jobs; EU Recommendation on Key Competences for LLL,…
- Juncker priorities: DSM – Jobs, Growth & Investment
Structure

1. Problem formulation
2. Understanding Open Education
3. Beliefs, practices, opportunities and challenges
4. Open Education framework
5. Final remarks
1. Problem formulation

58% of all MOOCs offered by first 25% of top 100 US national universities

"U.S. News & World report" ranking

Data Source: online course report State of the MOOC 2016: A Year of Massive Landscape Change For Massive Open Online Courses
- However, it is not only (or not just) about MOOCs
- It is about Opening up Education (OE), modernising and innovating our HE systems in Europe through the use of digital technologies
- There is no shared understanding what OE means (at all levels)
- Most universities do not seem to have an OE strategy
- If there is a strategy, it is usually not embedded within overall institutional strategy
- As a result:
  - Ad-hoc, arbitrary and experimental activities
2. Understanding Open Education
Open education

From Wikipedia, the free encyclopedia

Not to be confused with Open educational resources.

en.wikipedia.org/wiki/Open_education

Accessed 14/10/2014
A mode of realising education, often enabled by digital technologies, aiming to widen access and participation to everyone by removing barriers and making learning accessible, abundant, and customisable for all.

It offers multiple ways of teaching and learning, building and sharing knowledge, as well as a variety of access routes to formal and non-formal education, bridging them.

Source: JRC IPTS Report: Opening up Education: a support framework for higher education institutions. (forthcoming, 2016)
New priorities for European cooperation in E&T 2020

1. Relevant and high-quality skills and competences, focusing on learning outcomes, for employability, innovation and active citizenship

2. Inclusive education, equality, non-discrimination and promotion of civic competences

3. Open and innovative education and training, including by fully embracing the digital era

4. Strong support for educators

5. Transparency and recognition of skills and qualifications to facilitate learning and labour mobility

6. Sustainable investment, performance and efficiency of education and training systems
3. Beliefs, practices, opportunities and challenges
How are Higher Education Institutions Dealing with Openness?

A Survey of Practices, Beliefs, and Strategies in Five European Countries

Jonatan Castaño Muñoz, Yves Punie, Andreia Inamorato dos Santos, Marija Mitic and Rita Morais

2016
Is Open Education (in any of the different forms) provided within your institution?

Number of valid responses after weighting: 117 (for overall) and 144 (for country comparison) – Data from OpenSurvey study. JRC-IPTS 2015.
Provision of OE at the level of faculties (or similar units)

- In most faculties (more than 50%): 34.2%
- In several faculties (between 10 and 50%): 29.2%
- In a few faculties (less than 10%): 25.1%
- In no faculties at all: 11.5%

Number of valid responses after weighting: 46 (only respondents who provide Open Education) – Data from OpenSurvey study. JRC-IPTS 2015.
Offer of MOOCs

Number of valid responses after weighting: 117 (for overall) and 144 (for country comparison) – Data from OpenSurvey study. JRC-IPTS 2015.
Is offering MOOCs part of your institution's official educational strategy?

Yes: 57.5%
No: 42.5%

Number of valid responses after weighting: 25 (Only respondents who offer MOOCs) - Data from OpenSurvey study. JRC-IPTS 2015.
MOOCs and recognition

- No, the MOOCs are not connected to any reference framework: 65.3%
- Some or all MOOCs are connected to the European Credit Transfer and Accumulation System (ECTS): 25.7%
- Some or all MOOCs are connected to the national qualifications framework: 9%
- Some or all MOOCs are connected to other reference frameworks (Please specify): 1.2%

Number of valid responses after weighting: 25 (only respondents who offer MOOCs) - Data from OpenSurvey study. JRC-IPTS 2015.
Factors for engaging with Open Education

- Enhance the image and visibility of the institution: 48.3% Very important, 48.4% Rather important/Important, 3.4% Unimportant/rather unimportant
- Reach more learners: 34.9% Very important, 62.2% Rather important/Important, 0.92% Unimportant/rather unimportant
- Enhance the quality of the educational offer: 35.0% Very important, 49.9% Rather important/Important, 7.2% Partly important/Partly unimportant, 7.9% Unimportant/rather unimportant
- Increase enrolment in formal education: 28.7% Very important, 55.5% Rather important/Important, 10.7% Partly important/Partly unimportant, 4.5% Unimportant/rather unimportant, 0.5% Very unimportant
- Reduce the costs of the educational provision for the institution: 13.2% Very important, 43.1% Rather important/Important, 16.2% Partly important/Partly unimportant, 21.2% Unimportant/rather unimportant, 6.3% Very unimportant

Number of valid responses after weighting: 43 (Only respondents who provide Open Education) - Data from OpenSurvey study. JRC-IPTS 2015.
Barriers against Open Education

- Open Education requires teacher training before becoming effective
- Formal recognition of Open Education is still an unresolved issue at the institutional level
- Lecturers are used to traditional pedagogies that don’t include Open Education
- Open Education requires more financial resources than anticipated
- We do not see financial benefit for our institution to so it
- There is a risk that Open Education affects negatively the quality of our institution’s educational provision
- Open Education is not in line with our pedagogical approach

Number of valid responses after weighting: From 108 to 115 depending on the question - Data from OpenSurvey study. JRC-IPTS 2015.
OER: Promoting – Planning - No plans (use & development)

Number of valid responses after weighting: from 108 to 114 depending on the question - Data from OpenSurvey study. JRC-IPTS 2015.
Collaboration of the institution in...

- **Design of digital learning strategies**
  - Yes, with institutions in own country: 42.7%
  - Yes, cross-border (i.e. with institutions from other countries): 20.1%
  - No: 37.2%

- **Shared online courses for students**
  - Yes, with institutions in own country: 42.6%
  - Yes, cross-border (i.e. with institutions from other countries): 20.4%
  - No: 37.0%

- **Shared teacher training**
  - Yes, with institutions in own country: 46.4%
  - Yes, cross-border (i.e. with institutions from other countries): 20%
  - No: 33.6%

Number of valid responses after weighting: 118. Data from OpenSurvey study. JRC-IPTS 2015.
Has the engagement in Open Education produced so far financial benefits for your institution?

- Reach more students is the most common mentioned benefit for institutions.
- Others: marketing, small income directly generated by OE (external fund, freemium..), more quality and retention.

Source: OpenSurvey open question

Number of valid responses after weighting: 43 (Only respondents who provide Open Education)—Data from OpenSurvey study. JRC-IPTS 2015.
## Responses rates and confidence intervals

<table>
<thead>
<tr>
<th>Country</th>
<th>Sampling Frame</th>
<th>Contacted</th>
<th>Responses</th>
<th>Response Rate</th>
<th>Effective net sample size (neff)</th>
<th>CI neff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>306</td>
<td>191 (stratified sample)</td>
<td>55</td>
<td>28.8</td>
<td>50</td>
<td>-13.9</td>
</tr>
<tr>
<td>France</td>
<td>294</td>
<td>196 (stratified sample)</td>
<td>22</td>
<td>11.2</td>
<td>19</td>
<td>-22.5</td>
</tr>
<tr>
<td>Germany</td>
<td>361</td>
<td>198 (stratified sample)</td>
<td>25</td>
<td>12.6</td>
<td>17</td>
<td>-23.8</td>
</tr>
<tr>
<td>Spain</td>
<td>157</td>
<td>157</td>
<td>35</td>
<td>22.3</td>
<td>27</td>
<td>-18.5</td>
</tr>
<tr>
<td>UK</td>
<td>147</td>
<td>147</td>
<td>41</td>
<td>27.9</td>
<td>38</td>
<td>-15.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,264</strong></td>
<td><strong>889</strong></td>
<td><strong>178</strong></td>
<td><strong>20.0</strong></td>
<td><strong>117.75</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Data from OpenSurvey study. JRC-IPTS 2015.
4. Open Education framework
OpenEdu supports the 2013 Communication 'Opening up Education: Innovative Teaching and Learning for all through New Technologies and Open Educational Resources'
JRC-IPTS OpenEdu framework on behalf of DG EAC

The framework was designed to support HEIs in Europe to make strategic decisions on open education.

It defines and describes what OE is, highlighting the specific relevance of each element for HEIs.

It is a hands-on tool created by the OpenEdu Project as a response to the 2013 EC COM on 'Opening up Education'.
What does the framework look like?

Dimensions:

6 core: access, content, pedagogy, recognition, collaboration, research

4 transversal: strategy, leadership, technology, quality

For each dimension of OE, the framework contains:

✓ Definition
✓ Rationale
✓ Components
  ✷ Descriptors

In total, >150 descriptors

+ Opening up education strategic planning template
Opening up education framework

Source: JRC IPTS report (2016, forthcoming): ‘Opening up education in Europe – a support framework for higher education institutions (OpenEdu)’
Core dimension: recognition

Rationale
Recognition enables open education learners to make the transition from non-formal to formal education, to complete a programme of tertiary education in a more flexible way, or to get recruited/promoted at the workplace. When submitting their credentials for recognition, learners expect to gain ‘validated credits’ which will help them to move ahead professionally and in their personal lives.

7 Components:
Assessment | Identity validation | Trust and Transparency | RPL (recognition of prior learning) | Fast Track Recognition | Qualification | Social recognition

<p>| Descriptors |
|-----------------|------------------|
| Assessment | Strategy/Business Model |
| | □ Paid-for open education assessment (in MOOCs/OCW, free-of-charge online courses etc.) is part of the business plan of the institution. |
| | □ Free open education assessment is part of the strategy of the institution. |
| | □ Others. Please specify. |
| | Technology |
| | □ The institution uses biometrics systems to verify the learner’s identity during assessments. |
| | □ The institution uses proctoring services to verify the learner’s identity in assessments at a distance |
| | □ The institution uses technology to verify the identity of the open learner |
| | □ Others. Please specify |
| | Quality |
| | □ The institution has a quality control procedure to verify the design and the undertaking of open education assessments. |
| | □ The institution has a quality control procedure for the open online courses to which it wishes to award credits |
| | Leadership |
| | □ The institution encourages the ECTS mapping of its open education courses. |
| | □ Others. Please specify. |</p>
<table>
<thead>
<tr>
<th>Fast Track Recognition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategy/Business Model</strong></td>
</tr>
<tr>
<td>□ The institution understands Fast Track Recognition for open learning as an important strategy for open education.</td>
</tr>
<tr>
<td>□ The institution seeks to develop business models around the fast track recognition of open learning.</td>
</tr>
<tr>
<td>□ The institution seeks to identify institutional partners to collaborate on the recognition of prior learning for open learners.</td>
</tr>
<tr>
<td>□ Others. Please specify.</td>
</tr>
<tr>
<td><strong>Technology</strong></td>
</tr>
<tr>
<td>□ The institution makes use of technology for a first screening of portfolios to indicate their eligibility for open learning recognition.</td>
</tr>
<tr>
<td>□ The institution makes use of technology to support fast track recognition of open learning.</td>
</tr>
<tr>
<td>□ The institution makes use of technology to let open learners know that they can apply for recognition of open learning (e.g. social media, institutional website, online marketing tools).</td>
</tr>
<tr>
<td>□ The institution seeks to develop a strategy to provide transparent and comprehensive online information to both the learners and other institutions in relation to its assessment mechanisms for open learning, certification and recognition</td>
</tr>
<tr>
<td>□ The institution uses technology to verify the identity of the open learner</td>
</tr>
<tr>
<td>□ Others. Please specify.</td>
</tr>
<tr>
<td><strong>Quality</strong></td>
</tr>
<tr>
<td>□ The institution is committed to developing a speedy and reliable process for fast track open learning recognition.</td>
</tr>
<tr>
<td>□ The institution has an internal committee, which pre-verifies the reliability of third-party institutions' open learning assessments mechanisms and certification processes in order to establish collaboration on fast track recognition.</td>
</tr>
<tr>
<td>□ The institution seeks to develop a strategy to provide transparent and comprehensive online information to both the learners and other institutions in relation to its assessment mechanisms for open learning, certification and recognition.</td>
</tr>
<tr>
<td>□ Others. Please specify.</td>
</tr>
<tr>
<td><strong>Leadership</strong></td>
</tr>
<tr>
<td>□ The institution seeks to lead in open education by being at the forefront of open learning fast track recognition.</td>
</tr>
<tr>
<td>□ The institution identifies champions to lead the fast track open learning recognition dossier of the university.</td>
</tr>
</tbody>
</table>
Currently 175 descriptors (but some overlap)

- Access: 34
- Content: 39
- Pedagogy: 39
- Recognition: 53
- Collaboration: 10
- Research: 0
5. Final remarks
The framework is about "capacity building" aimed at decision makers in universities, and anyone who can propose practices and policies.

It is a guide to think through critical questions. It does not provide definitive answers. The answers come through the insights generated by the process of engaging with the framework.

It can enhance collaboration and exchange of experiences.

Framework is flexible, allowing for customization and selective use, also adding own strategic elements.

It should evolve over time.

To be published soon (May–June 2016) and looking forward to feedback from the field.
Promoting Effective Digital-Age Learning

A European Framework for Digitally-Competent Educational Organisations

Panagiotis Kampylis, Yves Punie, Jim Devine

2015


Author: Anusca Ferrari
Editors: Yves Punie and Barbara N. Brečko

2013
Thank you

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