Creating and Disseminating Open Educational Resources (OER): Research Trends and the Basics for Newcomers

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Introduction

• Open Educational Resource (OER) are offered through e-learning platforms or search engines specialized in open access web resources with metadata, standard Dublin Core (OAI-PMH harvesters), transcend the limitations of time and space.

• Conceptual outline describing most common topics
Topic areas in e-learning research
Main topics in e-learning research
E-learning and Open Access
Main thematic research clusters around e-Learning and Open Educational Resources in the publications indexed in Scopus.
E-learning and Open Educational Resources
<table>
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<th>Co-occurrences</th>
<th>Topic</th>
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<td>134</td>
<td>Education - Open educational resources</td>
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<td>Educational resource - Open educational resources</td>
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<td>Open content - Open educational resources</td>
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Dissemination: consortia and repositories of Open Educational Resources
Copyright protection: open licensing

- **Attribution**
  Others can copy, distribute, display, perform and remix your work if they credit your name as requested by you.

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  Others can copy, distribute, display, perform or remix your work but for non-commercial purposes only.
Polytechnic University of Valencia launched (2007) a Teaching Network (Docencia en Red), which aims to incentivize the development of digital learning objects and modules among its staff, especially the creation of multimedia content.

- Advocacy open access: recommendation economically incentivized.

- Deposit in the institutional repository, RiuNet (https://riunet.upv.es/)
Learning objects in Institutional Repository

IR as peer review management system

5331 open learning objects (nov. 2015)

Docencia en Red (Teaching Network)

Number of items per call
Learning objects. Typologies

- Virtual laboratories: 1152
- Teaching support articles: 465
- Polimedia: 3713
OAI-PMH. Metadata interoperability. Harvesters
OAI-PMH. Query Language

```
"want to have all your new records"

"have 267, but give you only 100"
100 records + resumptionToken "anyID1"

"want more of this"
archive.org/oai?verb=ListRecords&resumptionToken=anyID1

"have 267, give you another 100"
100 records + resumptionToken "anyID2"

"want more of this"
archive.org/oai?verb=ListRecords&resumptionToken=anyID2

"have 267, give you my last 67"
67 records + resumptionToken ""
```
Example metadata structure collected by search engines

- **# Field Identifiers**

- **# Field Mappings**
  google.citation_title = dc.title
  google.citation_publisher = dc.publisher
  google.citation_authors = dc.author | dc.contributor.author | dc.creator
  google.citation_date = dc.date.issued | dc.relationconferencedate
  google.citation_abstract_html_url = $handle
  google.citation_fulltext_html_url =
  google.citation_pdf_url = $simple-pdf
  google.citation_keywords = dc.subject, dc.type
OER in Institutional Repositories

Content Types in OpenDOAR Repositories - Worldwide

- Journal articles
- Theses and dissertations
- Books, chapters and sections
- Unpublished reports and working papers
- Conference and workshop papers
- Multimedia and audio-visual materials
- Other special item types
- Learning Objects
- Bibliographic references
- Datasets
- Patents
- Software

Total = 2987 repositories

OpenDOAR - 14-Nov-2015

N.B. Most repositories hold several Content Types.
Conclusions

• Learning objects online has profoundly changed the educational process and even the conception of educational practice.

• Broad **panorama of research development** in this area analyzing topics related to distance learning and the development of web-based materials.

• Main specialized **resources and open protocols** that aim to promote e-learning using Open Educational Resources.
Questions?

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Oral presentation available in
https://riunet.upv.es/handle/10251/57587

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