Factors Influencing Co-Creation of Open Educational Resources Using Learning Object Repositories

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About Us

- The DataLab research group at The University of Zambia is composed of faculty staff and students—undergraduate and postgraduate—working in three main areas
  - Data Mining
  - Digital Libraries
  - Technology-Enhanced Learning
Outline

- Introduction
- Problem Statement
- Research Objectives
- Methodology
- Results and Discussion
- Conclusion and Future Work
Introduction (1/2)

- The United Nations Educational, Scientific and Cultural Organisation (UNESCO) defines Open Educational Resources (OERs) as teaching, learning and research materials available in the public domain or released under an open license that enables them to be access, used and adapted with limited or no restrictions
  - Alongside the development of OERs has been the need to ensure that education content remains relevant and not static. A crucial enabling factor for this is the facilitation of co-creation of OERs
Introduction (2/2)

Support a vibrant, educator-focused Commons

The tens of thousands of open resources on OER Commons are free - and they will be forever - but building communities to support them, developing new collections, and creating infrastructure to grow the open community isn’t. Grassroots donations from people like you can help us transform teaching and learning.

Make a Donation Today!

Donate

Create OER with Open Author

https://www.oercommons.org
Introduction (2/2)
Problem Statement

- Learning Object Repositories (LOR) provide a crucial infrastructure necessary for enabling access to OERs
  - However, most educators use LORs as consumers, rather than producers of OERs, making co-creation of OERs difficult
Research Objectives

- The main object of this study was to investigate the use of LORs for facilitating the co-creation of OERs by educators
  - To identify the appropriate types of OERs to be stored in OER LORs
  - To determine personal motivating factors that are capable of encouraging educators to co-create OERs
  - To demonstrate the feasibility of setting up an OER LOR that is flexible enough to incorporate user-centric design inputs
Theoretical Grounding: Uses and Gratification Theory

- Uses and Gratification theory used due to its widespread use and success when examining how users consume media and digital content
  - Goal is to understand how the use of digital content gratifies user needs
- Cognitive and integrative motivation factors proposed by Rafaeli et al. adopted, by focusing on “personal motivation” using seven factors
  - Reputation, Discussion, Contribution, Intellectual Challenge, Pleasure, Sharing Knowledge and Learning
Methodology

● Study conducted using a mixed-methods approach
● Identification of factors influencing co-creation of OERs
  ○ 42 College/University Lecturers, Secondary School Teachers and Student Teachers randomly sampled
  ○ Uses and Gratification Theory measurement instrument used to elicit responses using an online questionnaire
● OER LOR implemented to demonstrate the feasibility of setting up a scalable OER that incorporates Uses and Gratification aspects
  ○ Islandora used as candidate framework due to its scalability and flexibility
## Results and Discussion: OER Materials

The slide displays a bar chart showing the distribution of responses from participants regarding various OER materials. The materials include Assessments, Images, Lectures, Modules, ReadingLists, Slides, SoundClips, TextPassages, Timetables, and Videos. The chart is color-coded as follows:
- Strongly Disagree: Blue
- Disagree: Red
- Neutral: Yellow
- Agree: Green
- Strongly Agree: Orange

### OER Materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessments</td>
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<td></td>
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<tr>
<td>Images</td>
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<tr>
<td>Lectures</td>
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<td>Modules</td>
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<td>ReadingLists</td>
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<td>Slides</td>
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<td>SoundClips</td>
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<td>TextPassages</td>
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<td>Timetables</td>
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<tr>
<td>Videos</td>
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</tr>
</tbody>
</table>

The slide indicates a detailed analysis of participant responses, showing the percentage distribution of views for each OER material.
## Results and Discussion: Ranking

<table>
<thead>
<tr>
<th></th>
<th>Videos</th>
<th>Images</th>
<th>Animations</th>
<th>Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>11.90%</td>
<td>4.76%</td>
<td>16.67%</td>
<td>4.76%</td>
</tr>
<tr>
<td>Disagree</td>
<td>7.14%</td>
<td>11.90%</td>
<td>33.33%</td>
<td>9.52%</td>
</tr>
<tr>
<td>Neutral</td>
<td>28.57%</td>
<td>26.19%</td>
<td>28.57%</td>
<td>16.67%</td>
</tr>
<tr>
<td>Agree</td>
<td>21.43%</td>
<td>35.71%</td>
<td>16.67%</td>
<td>33.33%</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>30.95%</td>
<td>21.43%</td>
<td>4.76%</td>
<td>35.71%</td>
</tr>
</tbody>
</table>
Results and Discussion: Motivating Factors

![Graph showing the results and distribution of motivating factors among participants.](chart.png)
Results and Discussion: Comments (1/2)

- What can inspire or influence educators to participate in the creation of OERs?
  - "Platform and space to create and share with like minds" [Participant #1]
  - “Enable teachers to share data easily” [Participant #36]
  - “Help education resources be accessible and free for all who cannot afford.” [Participant #16]

<table>
<thead>
<tr>
<th>Motivating Factor</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution</td>
<td>1</td>
</tr>
<tr>
<td>Discussion</td>
<td>4</td>
</tr>
<tr>
<td>Intellectual Challenge</td>
<td>3</td>
</tr>
<tr>
<td>Learning</td>
<td>7</td>
</tr>
<tr>
<td>Pleasure</td>
<td>3</td>
</tr>
<tr>
<td>Reputation</td>
<td>5</td>
</tr>
<tr>
<td>Sharing Knowledge</td>
<td>9</td>
</tr>
</tbody>
</table>
Results and Discussion: Comments (2/2)

● What can inspire or influence educators to participate in the creation of OERs?
  ○ “IF A FINANCIAL INCENTIVE IS PROVIDED” [Participant #10]
  ○ “Incentives” [Participant #13]
  ○ “Provision of enough resources and materials” [Participant #34]
  ○ “Recognition of one’s works in terms of rewards and awards” [Participant #39]

<table>
<thead>
<tr>
<th>Motivating Factor</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>1</td>
</tr>
<tr>
<td>Incentives</td>
<td>4</td>
</tr>
<tr>
<td>Obstacles</td>
<td>1</td>
</tr>
<tr>
<td>Technology</td>
<td>3</td>
</tr>
</tbody>
</table>
Results and Discussion: OER LOR (1/2)

- Drupal CMS for public end-user interface
  - Flexibility because of plugin architecture
- Apache Solr for searching and browsing
- Fedora as the repository sub-layer
  - Flexible and scalable platform

https://www.dlib.org/dlib/july16/yeh/07yeh.html
Learning Objects Categories

Here you can browse learning objects by category. Clicking on the category will provide additional contextual overview about the learning object category. You can sort, filter, and change how the categories are displayed by editing the LOR Category view. You can even configure its link in the main navigation menu and the url of this page.

Course Modules

Submitted by admin on Mon, 10/04/2021 - 12:19
Conclusions and Future Work

- **Building OER LOR that explicitly and implicitly motivate educators to contribute content can potentially result in content/OERs that are more useful**
  - While technology is important, explicit focus on personal motivating factors is essential

- **Potential future work and/or direction**
  - Evaluation of usability and usefulness of OER LOR
  - Evaluation of effectiveness of Uses and Gratification aspects when integrated into OER LOR
  - Use and usefulness of complex OER resources such as Reusable Orchestration appliances
Q & A Session

- Comments, concerns and complaints?
Bibliography


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