

DESIGNING INTEGRATION OF OER AND OEP

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Designing Integration of Open Educational Resources (OER) and Open Educational Practices (OEP)

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Introduction

- **Context** - Faculty of Education, **OUSL**
- **Initiatives** - **Integration of OER** by Practitioners
- **Challenge** - Adopting OER & OEP in the teaching - learning process requires significant changes in educators' pedagogical thinking and practices. Planning/designing for the integration of OER and OEP is very challenging.
- **Focus** - **How a designed process supported enacting changes in practitioners' thinking and practices in the integration of OER and adoption of OEP.**



Open Educational Resources (OER)

- **Open Educational Resources (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, 2012)



The 5R Permissions of OER

Retain

- Make and own copies

Reuse

- Use in a wide range of ways

Revise

- Adapt, modify, and improve

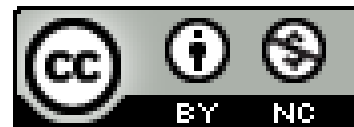
Remix

- Combine two or more

Redistribute

- Share with others

Creative Commons Licenses



Open Educational Practices (OEP)

- **OEP, “...constitutes the range of practices around the creation, use, and management of OER...to improve quality and innovate education”**

(Ehlers, 2011)

- OEP would encompass several aspects:
 - production, management, use and reuse of OER;
 - developing and applying open pedagogies in teaching practice;
 - gaining access to open learning opportunities;
 - practicing open scholarship, open sharing of teaching ideas and using open technologies

(Beetham, Falconer, McGill & Littlejohn, 2012)

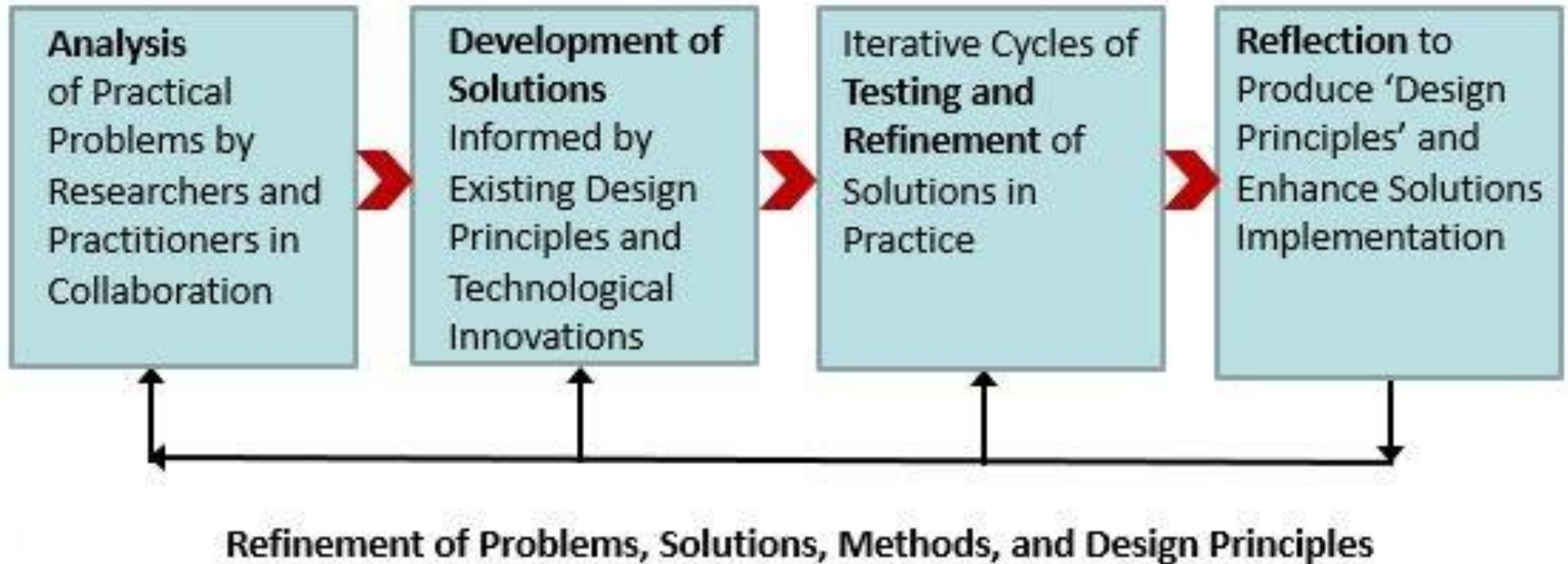
Challenges in the integration of OER and OEP by practitioners

- The opportunity to adopt varying degrees of ‘openness’ in the use of OER, empower educators to become more creative and innovative in their educational practices.
- The adoption of OER & OEP by educators can be truly effective only if it reflects a ‘*change*’ in their thinking and actions.
- **Design of effective, efficient, and engaging experiences** based on innovative pedagogical models would offer a feasible solution to support changes in thinking and practices among practitioners *(Naidu & Karunanayaka, 2015)*.

Initiatives Implemented at the OUSL

- Integrating ICT & OER in Teacher Education Programmes (OERTE)
 - supported by COL (2013/14)
- Implementing an OER-based e-Learning Online Course (OEReL)
 - supported by CEMCA (2014/15)
- Impacts of OER integration in Teacher Education (OERTL)
 - IDRC supported ROER4D Project (2015/16)

Design-Based Research (DBR) Approach



(Adapted from Reeves, 2006, p.59)

Analysis

Analysis of practical problems by researchers & practitioners in collaboration

Analysing current thinking and practices of practitioners in relation to their use of instructional methods and materials in the teaching-learning process.

- Questionnaire survey
- Concept mapping
- Lesson plan observations
- Focus group interviews
- Self-reflections

Solutions

Development of solutions informed by existing design principles & technological innovations

Designing a sequence of experiences to enhance OER & OEP adoption, pedagogical thinking and pedagogical practices.

- Interactive workshops
- Online environment (LMS) to support
 - Awareness raising
 - Capacity building
 - Monitoring & Supporting
 - Reviewing & Evaluation

Testing & Refinement

Iterative cycles of testing and refinement of solutions in practice

Capacity building, support, monitoring, motivating adoption of OER through:

- Interactive workshops
- Online environment (LMS)

- Hands-on individual and group activities to search, identify, select and integrate OER in lessons
- Encouraging teachers to share OER found/reused/revised/remixed/ created
- Motivate sharing of good practices
- Promote reflective practice

Reflection

Reflection to produce design principles and enhance solution implementation

Use practitioners and researcher's reflections to find and implement solutions to authentic problems.

- Reflective writing by practitioners and researchers based on their experiences
- Compilation of “Stories” based on the reflections
- Publishing and sharing the stories

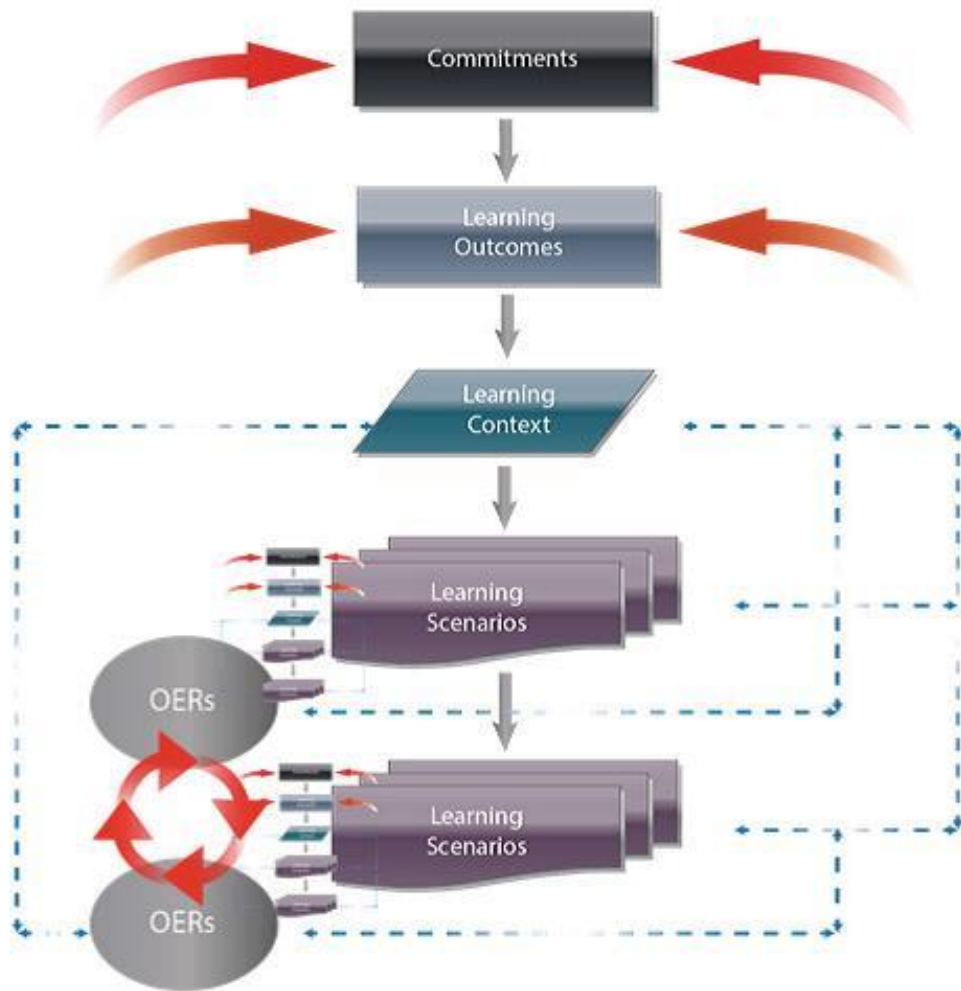
Design Frameworks to Enact Change

| Initiative | OERTE (2013-2014) | OEReL (2014-2015) | OERTL (2015-2016) |
|------------------|---|---|--|
| Design Framework | A “learning engine” framework as an effective strategy to design efficient, effective, engaging learning experiences, using “scenario-based learning” (SBL)approach. | The “learning engine” framework and the ‘OPAL’ framework (Ehlers, 2011) integrated. | An intervention using a Design-based Research (Reeves, 2006) approach to support open educational practices. |

Scenario-based Learning (SBL)

- A model of situated learning that is grounded in constructivist pedagogy where learners are placed in authentic learning scenarios that will provide the context and the anchor for all learning and teaching activities (*Naidu, 2006*).
- Basic Attributes:
 - **A Learning Scenario**
Learners are situated in **authentic learning scenarios**.
 - **Learning Activities**
Learners assume **key roles**, and face various **challenges**.
 - **Assessment Tasks**
Learners will **demonstrate developed competencies**, and enable teachers to assess the **achievement of the intended learning outcomes** by learners

A “Learning Engine” framework to design learning experiences



Steps:

- Develop learning outcomes
- Articulating the learning context
- Develop relevant learning activities and scenarios
- Integrate OER in the learning experience

(Naidu & Karunanayaka, 2014)

OPAL Framework

Focus on OER extends beyond mere 'access' to engagement in 'innovative open educational practices' (OEP), with different degrees of openness in the usage and creation of OER.

| | | OER Usage | | |
|-----------------------|---|---------------------------|--------------------------------------|-------------------------------------|
| | | Low No OER (re-) usage | Medium OER (re-)usage or creation | High OER (re-)usage and creation |
| Learning Architecture | High Social practices, Collaboration, Sharing (Reflection in action), • „open“ objectives • „open“ methods | A | B | C |
| | Medium Dialog, Procedures, Rules (Know-how) • „closed“ objectives • „open“ methods | D | E | F |
| | Low Knowledge transmission (Know that) • „closed“ objectives • „closed“ methods | G | H | I |

Increasing OEP ↗

- Includes two matrices providing
 - 1.) a structure to analyze the degree of implementation of OEP by individuals within a given context, and
 - 2.) a structure for analyzing the extent to which OEP is embedded within the environment

Constitutive Elements of OEP (Source: *OPAL, 2009; Ehlers, 2011*)

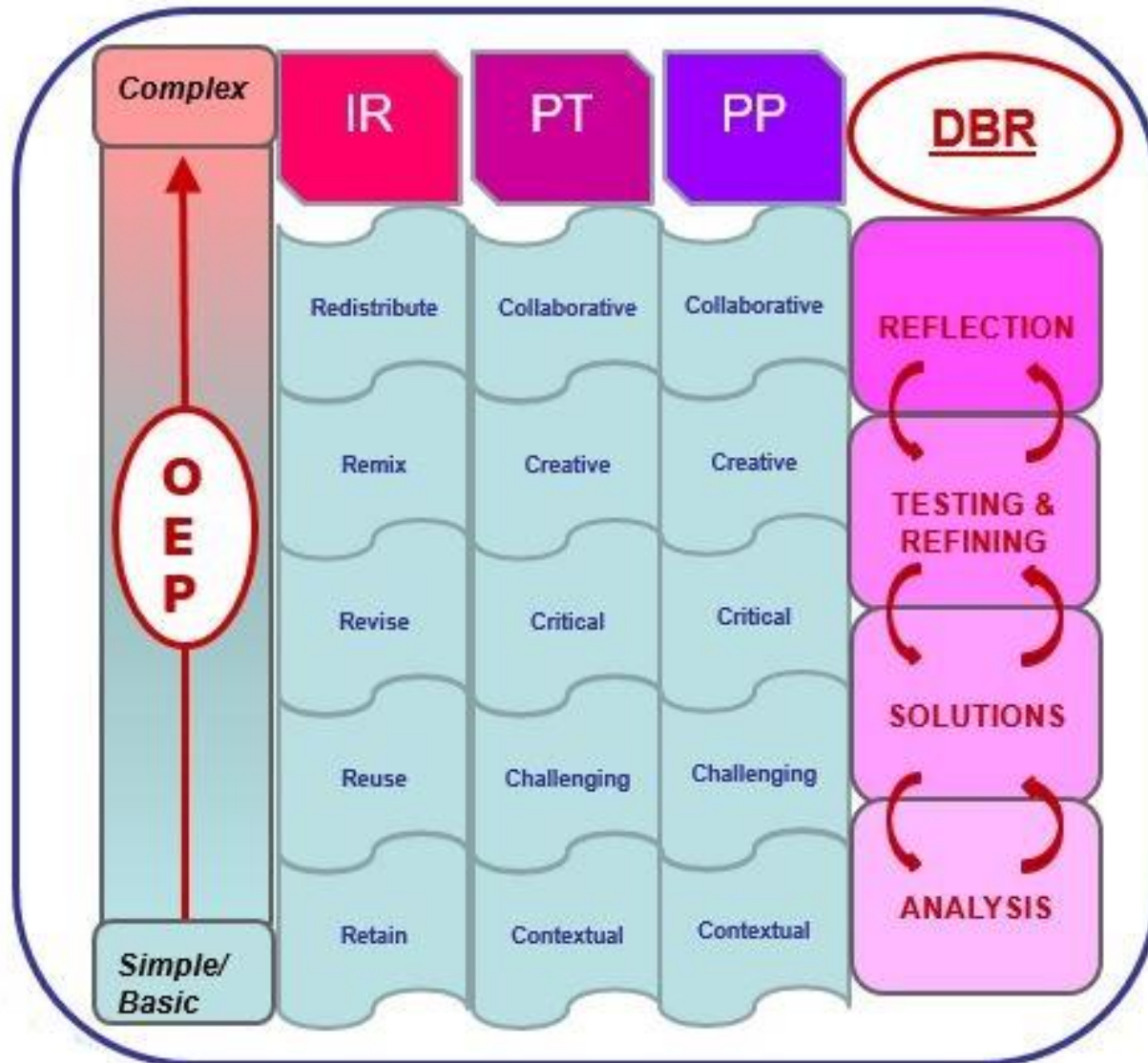
| Modules & Learning Outcomes | Different Ways of OER Integration - Examples | | | Different Levels of OER Integration |
|--|---|---|--|---|
| | Learning Scenario | Learning and Assessment Tasks | Learning Resources | |
| | OER-related; Situated learning; Authentic; Goal-based, Problem-solving. | OER-related, Individual & group; Learning activities leading to the assessment tasks; Peer-facilitated discussion forums; Reflection in action. | Different forms of relevant OER as essential / additional resources | 4R Framework (Wiley, 2006) From OER to OEP (OPAL framework, 2009) |
| ← Linked across elements (horizontally) → | | | | |
| 1. Concept and Practices of OER - Demonstrate understanding of OER and related concepts. - Trace the historical development of OER - Critically examine OER initiatives and develop a plan for your own institution | - Plan for a workshop for University lecturers on "An Introduction to OER" | - Develop a concept map on OER related concepts - Develop a graphical representation on historical development of OER. - Develop a Workshop Plan on "Concepts and Practices on OER" based on a SWOT Analysis on OER initiatives | - text-based readings - graphics - animations - video clips - quizzes - tutorials - software | Re-use; No / Low → Medium OER (re) usage; Closed methods → Open methods; Low → Medium → High Sharing; Collaboration; Reflection. |
| 2. Search and Evaluation of OER Materials | ↓ | ↓ | ↓ | ↓ |
| 3. Licensing and Copyrights | Moving along similar lines through the modules (vertically) | | | |
| 4. Designing Learning Experiences for OER-based e-Learning | ↓ | ↓ | ↓ | ↓ |
| 5. Integrating OER in e-Learning - Demonstrate understanding of the affordance of e-learning - Integrate Open Educational Resources (OER) to optimize e-learning | - Make a presentation to the University administration on "affordances of e-learning and online learning" and demonstrate how integrating OER will optimize e-Learning. | - Prepare a presentation on the concepts of e-Learning and online learning and the affordances of e-Learning - Explain methods of integrating different types of OER selected to create a learning resource (OER), to be integrated in a learning scenario designed by you, for an e-Learning environment, and how it will optimize e-Learning | - text-based readings - graphics - animations - video clips - quizzes - tutorials - software | Re-use; Revise; Remix; Redistribute. Medium use → High OER (re)usage and Creation Open methods → More open methods; Medium → High Sharing; Collaboration; Reflection. |

Increased degree of OEP (vertically)

‘Learning Engine’ in Action –
Matrix of different ways and levels of OER integration horizontally and vertically in the learning experience of the OEReL course

(Karunanayaka, Naidu, Rajendra & Ratnayake, 2015)

OEP through DBR – Framework



(Karunanayaka & Naidu, 2016)

| Initiative/s | Challenges | Strategies | “Changes” |
|--|---|---|---|
| OERTE OEREL OERTL | Non-conversant with technology; Non-awareness of openly-licensed online learning resources (OER) | Hands-on experiences to integrate technology in course design, development and delivery; Search, identify and integrate various types of OER available online as sources of subject matter content, in the learning experiences. | Capacity development in ICT and OER integration in course design, development and delivery; Shifts in mindsets and changes in practices. |

| Initiative/s | Challenges | Strategies | “Changes” |
|--|--|--|---|
| OERTE OEREL OERTL | A key focus on ‘delivery of content’ by experts; Exam-oriented knowledge transmission | Adoption of Scenario-based learning (SBL) – a situated learning approach; Adoption of a ‘Learning Engine’ framework with OER as essential fuel; | Shifts in mindsets and changes in practices -from content-centric to more context- and learning-centric -from conventional to more innovative/creative ways |

| Initiative/s | Challenges | Strategies | “Changes” |
|----------------------------------|--|--|--|
| <p>OERTE OEREL OERTL</p> | <p>Coping with (new) technology and (new) pedagogy at the same time;</p> | <p>“Teachers as Designers” approach; A sequence of carefully structured hands-on activities to design technology-enhanced, constructivist, situated learning experiences; Compelling motivation.</p> | <p>Capacity development in designing and developing technology-enhanced constructivist, situated learning environments; Development of understanding in technological affordances for pedagogical requirements</p> |

| Initiative/s | Challenges | Strategies | “Changes” |
|--|---|--|--|
| OERTE OEREL OERTL | Resistance to “change” from the conventional thinking and practices | Designing OER-integrated e-learning environments using SBL; Use of DBR approach with a carefully designed intervention in stages; Researchers working collaboratively with the practitioners, promoting adoption of OER/OEP. | Significant changes in thinking, perspectives and practices towards OEP; Becoming reflective practitioners; Application of new knowledge/experiences; Impact on institutional policy development. |

Conclusions & Implications

- The change process during the three initiatives at OUSL comprised:
 - 1) Professional development of practitioners in the integration of OER in teaching and learning (design and development of OER-integrated online modules) ;
 - 2) A robust model (using situated cognition and scenario-based learning) for the integration of OER in professional development programs at OUSL; and
 - 3) A rigorous approach (using design-based research methods) to the evaluation of the impacts of OER integration and adoption of OEP.
- The key challenges faced during the 'change' process were successfully addressed through carefully designed interventions.
- This provides valuable insights for improved design solutions for future interventions in similar contexts.

Sharing Practitioner 'Stories'



HOME ABOUT DREAMS ▾ DREAMERS DREAMWEAVING ▾

DREAMWEAVING

Open Educational Practices

Dreams, Dreamers, and Dreamweaving

Educators are in the habit of *weaving dreams*. These include the *dreams of school teachers* who are aspiring to become better teachers as well as the *dreams of teacher educators* about building teacher capacity in relation to teaching and supporting their students' learning.

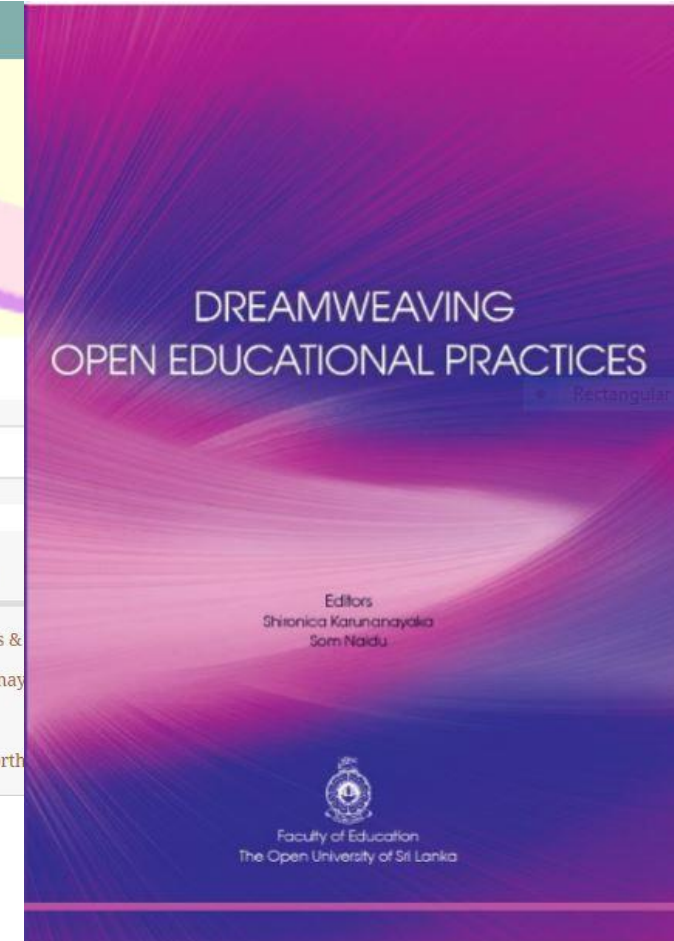
The work captured here is about *helping dreamers realize their dreams* and *weaving these dreams* into a coherent picture of *the impacts of the integration of open educational resources* and the adoption of *open educational practices* by teachers in the Sri Lankan school system.

Search ...

RECENT POSTS

- Dreams, Dreamers &
- Shironica Karunanay
- Som Naidu
- Sasikala Kugamoorth

<https://oertlousl.wordpress.com/>



Acknowledgements

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