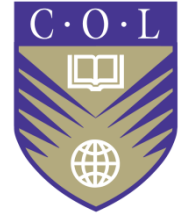


# OER in the Age of AI: A Step Towards Systemic Resilience



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Keynote address

Theme: Open Educational Resources and Education System Resilience in Sub-Saharan Africa  
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## Title slide

Good evening from Canada and good morning to you in southern Africa. Thank you for the invitation to speak at your international conference on Open Educational Resources and Education System Resilience in Sub-Saharan Africa. I am Director: Education at the Commonwealth of Learning and based in our head office in Vancouver.

## Slide 2: Commonwealth of Learning

For anyone present unfamiliar with COL, it is an Inter-Governmental Organisation (IGO) established by Commonwealth Heads of Government (CHoGM) in 1987 with a mission to increase access to educational opportunities by using ODL and appropriate technologies. Although our headquarters is based in Vancouver, we also have a regional centre in Delhi to support our work in India, and more widely in the Asian region.

## Slide 3: Outline

This presentation has five parts. I will begin by outlining the origins of my personal engagement with OER, then proceed to COL's collaboration with Malawi on OER, then explore some recent developments in OER more broadly, including the use of AI in OER development. Finally, I will share some thoughts about COL's forward thinking on this issue.

#### **Slide 4: OER Origins**

In most countries, we have been unable to build and staff enough schools, colleges and universities to accommodate the young people exiting from primary education. I have therefore always been interested in how ODL can be used to reach the learners unable to access in-person provision (or not performing well in the in-person environment). Core to offering ODL is the development of appropriately designed self-study learning materials. ODL providers usually develop such materials using content that has already been published and then repackage it for self-study, especially at the schooling level where classroom teachers may have more limited expertise. Copyright in such materials exists in the presentation rather than in the ideas, but nonetheless we still sometimes needed to spend lengthy amounts of time seeking, and sometimes paying for, the re-use of copyrighted materials. The advent of openly licensed materials in the form of Open Educational Resources (OER) (Wiley, n.d.; UNESCO, 2002) made it easier to find content we could re-use or adapt, without going through a time-consuming permissions process as the terms of use are already stipulated in the licence. COL was an early proponent of OER, and most of its work is published using a CC-BY-SA licence on its Open Access Institutional Repository – if you type OER into the search function on COL OASIS, for example, you will find 2060 resources which specifically mention the term OER in their metadata. COL has also developed a micro-course offering an *Introduction to OER*, which takes about 2 hours to complete, and has been accessed by nearly 38,000 people.

#### **Slide 5: OER Africa**

My own engagement with OER began in 2008 when I became involved with Saide’s OER Africa project. The OER Africa website remains a useful resource and includes not only examples of openly licensed courseware but also several very useful tutorials for exploring open education provision more generally.

#### **Slide 6: OER in Malawi**

In Malawi, COL’s support for OER has tended to be in partnership with the Malawi College of Distance Education and the Directorate for Distance Education within the Ministry. For example, colleagues in Malawi contributed to the open publication *Setting Standards, Maintaining Quality: Quality Assurance Policies for Open Schooling* (published in 2015) and subsequently to the open publication *Addressing the Learning Needs of Out-of-School Children and Youths through the Expansion of Open Schooling* (published in 2020) which provided the most comprehensive review of open schooling provision in recent years. However, it was MCDE’s involvement with COL’s Innovative Open Schooling project which saw the development of thousands of curriculum-based lesson level OER. The project was reported on in the open

publication *Social Return on Investment Analysis of Support from the Commonwealth of Learning for the Open and Innovative Schooling Model* (published in 2021). The resources developed during this period were not only useful to thousands of learners in Malawi during the pandemic and thereafter, but were also used by teachers and learners in Eswatini until they had developed their own locally-contextualised resources. Malawi was also one of the countries that contributed information for an openly licensed baseline study *Out-of-School Children and Youth: A Contemporary View from Selected African Commonwealth Countries* (published in 2022), contributed a section to a short course *Becoming a Climate Champion: A Climate Emergency Course for Young People* (in 2023) and also added a case study to a more recent publication on *Open Schooling in the Digital Era* (published in 2025). This ongoing collaboration is based on a shared belief in the value of open and distance learning, but also a commitment to sharing learning through open educational resources (OER) and open educational practices (OEP).

### **Slide 7: Recent Developments: Pacific**

An example of open educational practice is the Pacific Open Courses developed by COL and then repackaged and re-offered by the University of the South Pacific, other Pacific Partners, and even partners outside of the Pacific. They allow for multiple entry and exit points with different levels of recognition for achievement, through digital badges and/or partial or complete digital certification. COL recently received an OEGlobal Award for these courses.

The openness here includes re-use in other contexts, such as Africa ...

### **Slide 8: Lessons from Africa**

In Africa, COL works frequently with classroom teachers whose experience has been centred on in-person provision according to a set timetable, an authorised curriculum and an approved textbook. It requires a lot of support to help such teachers develop interactive digital content to support their classroom teaching and/or to branch into blended and online provision for learners unable or unwilling to access in-person education.

We typically need to start with an in-person workshop covering issues such as Curriculum mapping, ODL design, OER, Inclusion (incl gender), Assessment and Learner Support. The photograph shows teachers and Ministry officials in The Gambia in one such workshop.

This initial in-person training will then be followed by further online support and feedback processes, usually over a period of several months.

COL has also developed several online courses to support this kind of engagement, one example being the micro-courses available at COLcommons (<https://colcommons.org/>).

Malawi is involved in a project called *Beyond Numbers* (Job et al., 2026) offered by our teacher education initiative which focuses on adapting existing digital professional development resources like COLcommons and Pacific open courses to offer more teachers contextually relevant ongoing professional development online. Malawi is also participating in another project. Called NOTES ...

### **Slide 9: Network for Open Teacher Education in Sub-Saharan Africa (NOTES)**

NOTES is a COL teacher education project which has evolved over a period of time to encourage development of a community of practice around OER development sharing. Oganje (2026) argues “The incubation phase has already shown that OER and AI could work best when institutions co-create resources, adapt to local curriculum and build educator capacity together rather than alone.”

### **Slide 10: NOTES Output and Progress**

Oganje (2026) then outlines the process involved in developing a regional community of practice which will soon launch a regional repository of co-developed OER.

### **Slide 11: Recent developments in OER: Challenges and Opportunities**

More widely, COL’s Strategic Plan 2021–2027, indicates that OER has a vital role to effect transformational change at the institutional level. Therefore, we must regularly assess the status of OER use and access in the Commonwealth. In 2021, COL published *Open Educational Resources in the Commonwealth*. The report analyses the progress towards mainstreaming the use of OER. The report showed several positive developments compared to the findings of previous OER surveys. For example,

- there was an **increase in awareness of OER** among stakeholders.
- There were **more OER activities** at all levels of education, with a significant increase in the tertiary education sector.
- The actual **involvement** of the respondents with OER-related activities was well **above 20%**, which is considered a tipping point for any innovation to become mainstream.
- Findings also showed the increased need for
  - **skills training** to leverage the power of OER;
  - **gaps in licensing and copyright-related skills** rather than in finding OER;
  - lack of a **policy** environment for OER remained a crucial barrier at that time.

## Slide 12: Recent developments in OER: Challenges and Opportunities 2022

In 2022, COL published the findings of an institutional study in Fiji by Prasad. Findings of the faculty survey indicated:

- positive attitude towards sharing resources. The respondents were highly motivated to use and share resources but were **suspicious about OER quality**.
- The respondents also **lacked confidence** in their knowledge of intellectual property rights. This was ranked as the major barrier to OER adoption.
- Among other barriers were lack of **incentives** for developing OER and lack of **ICT skills**.
- Although students showed positive opinions of OER and were eager to begin using these resources, an evident lack of awareness led to the recommendation that **OER awareness programmes be considered for students**.

## Slide 13: Recent developments in OER: Challenges and Opportunities 2025a

In a paper presented at PCF11 in Botswana in 2025, Gina reported that while teachers recognise the pedagogical value of OER to enhance learner engagement and learning outcomes, many face significant barriers including **limited institutional support, technical challenges, and varying levels of digital literacy**. Participants emphasised the importance of **professional learning communities (PLC)**, relevant **training programmes**, and institutional **support systems** in fostering effective OER implementation. This research provides valuable insights for educational policymakers, school administrators, and teacher education programs in developing interventions to support OER adoption in South African schools, but also more generally.

## Slide 14: Recent developments in OER: Challenges and Opportunities 2025b

In another PCF11 paper, Bhujun & Mohee (2025) report that Open Educational Resources (OER) are revolutionising education by providing freely accessible and adaptable learning materials that align with global goals for inclusive education. In Mauritius, a Small Island Developing State (SIDS), the National OER Policy adopted in December 2022. Their paper highlights Mauritius's efforts to advance equitable education through OERs, aligning with Sustainable Development Goal 4 (SDG 4). It examines the policy's implementation, highlighting progress such as the establishment of the National OER Repository of Mauritius (NORM) and the development of 88 OER-based courses. Despite these achievements, challenges including **limited infrastructure, coordination gaps, and capacity constraints** persist, and the authors suggest how these challenges may be addressed.

Mauritius also launched their national Open Education Resources (OER) repository at PCF11 in September 2025, an important milestone in the country's commitment to expanding access to quality education and open learning for all with 88 open courses.

The Mauritius OER Repository offers courses across a range of topics, including science, technology, literature, and even music. Six higher education institutions of Mauritius have contributed to the platform, which is coordinated by the Higher Education Commission (HEC) and maintained by the University of Mauritius. The availability of the national repository is a result of the sustained efforts of the Ministry and COL to improve access to quality education and training for all.

### **Slide 15: Recent Challenges and Opportunities: Teacher in the Loop AI (TiL-AI)**

Artificial intelligence (AI) is rapidly transforming various sectors, including education. One of the most promising applications of AI in education is in the development and adaptation of Open Educational Resources (OER). COL's Teacher-in-the-Loop (TiL-AI) initiative empowers teachers and TVET trainers across the Commonwealth to leverage generative AI (GenAI) in adapting OER to fit national and local curricula, ensuring relevance and cultural resonance. Synergising the power of GenAI with the teacher's role, we can improve the quality of AI-generated content and empower teachers with a deeper understanding of both AI and OER and their combined potential in education. Balaji et al. 2025, reported on the first phase of the project.

### **Slide 16: Recent Challenges and Opportunities: Teacher in the Loop AI (TiL-AI)**

In another PCF11 paper, Adu-Manu et al. (2025) emphasise the importance of a Co-Creative Mentoring Model (CCMM) in enhancing digital literacy and gender-responsive teaching among Ghanaian educators. Implemented through a four-phase framework—Preparation, Co-Creation, Implementation, and Sustainability—the model integrates generative AI tools (e.g. ChatGPT and Canva) into collaborative mentorship and inclusive pedagogies. The participants co-developed adaptable AI-generated Open Educational Resources (OERs) and demonstrated increased awareness of inclusive instructional strategies. The key challenges included limited training time and issues with Internet connectivity. This study presents a scalable model for integrating generative AI into teacher education, demonstrating notable improvements in the professional confidence, digital competence, and pedagogical inclusivity of participants.

### **Slide 17: Future prospects: Frugal AI**

Cheng (2026) argues, for COL, that AI is here to stay and so we need to think about how best to use it considering issues such as efficiency, control and local ownership.

In COL's Frugal AI Strategic Framework:

“Frugal AI builds long-term institutional strength and capacity. To achieve sustainable digital transformation, we focus on three pillars of sovereignty:

- ***Sovereign Data Ownership***: We keep education data under local jurisdiction. By implementing privacy controls that anonymise student details *before* AI processing, we protect learners and institutions while retaining sovereign control over personal, institutional or national datasets.
- ***Economic Resilience***: We reduce dependency on foreign vendors and unpredictable licensing fees by prioritising open-source components and local infrastructure.
- ***Local Expertise***: We move beyond permanent reliance on external support. Through partnerships between ministries, universities, and teacher education institutions, countries build their own technical capacity from the ground up.” (Cheng, 2026).

### Slide 18: Future Perspectives 2

When preparing presentations like this, I like to keep a slide open to highlight any new publications that find their way into one of the news feeds that are related to the topic under discussion. Recently there has been interest in ways in which AI might inform greater engagement with OER as informed by the concept of open education practices which emphasise use and re-use of OER in different contexts. Bozkurt (2023) notes that while AI-generated content cannot be copyrighted or openly licensed, AI can be used to support authors who can then share openly licensed content in communities of practice while Tlili and Burgos (2024) take this further by seeking to open all aspects of the process including information on what AI was used and how, so we move from a static to dynamic engagement with OER. Then we can close the loop by using OER not just to help with OER development but also to provide guidelines and examples for AI use (Rampelt et al., 2025) As Ng (2026) observes:

“The ways we prompt AI are very different in 2026 than 2022 when ChatGPT came out. Some people are still using LLMs primarily by asking them short questions. But the models can do much more, like think for minutes, ingest many documents as context, and use web search and other tools.”

### Slide 19: References

There are quite a few active links that might be useful when you get a copy of this presentation. I am very open to further discussions about these issues after the event. Thank you to the organisers for making it possible for me to make a contribution and thank you to you for listening.

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