

# ROADMAP

## What We'll Cover Today

- 01 Foundations**  
Defining OER and the 5R permissions framework
- 02 Why It Matters**  
The case for OER: cost, access, and quality
- 03 The Landscape**  
Types, licenses, and repositories
- 04 Putting It Into Practice**  
Finding, evaluating, and integrating OER
- 05 Sustaining Adoption**  
Challenges, solutions, and what's next

### **Example 1**

**Suppose a teacher writes a textbook.  
Which of the following is possible?**

1. Photocopy the entire book.
2. Upload the PDF online.
3. Translate it into another language.
4. Modify and sell it.

### **Example 2:**

**Suppose a teacher creates and  
uploads a lecture video on YouTube.  
Which of the following is possible?**

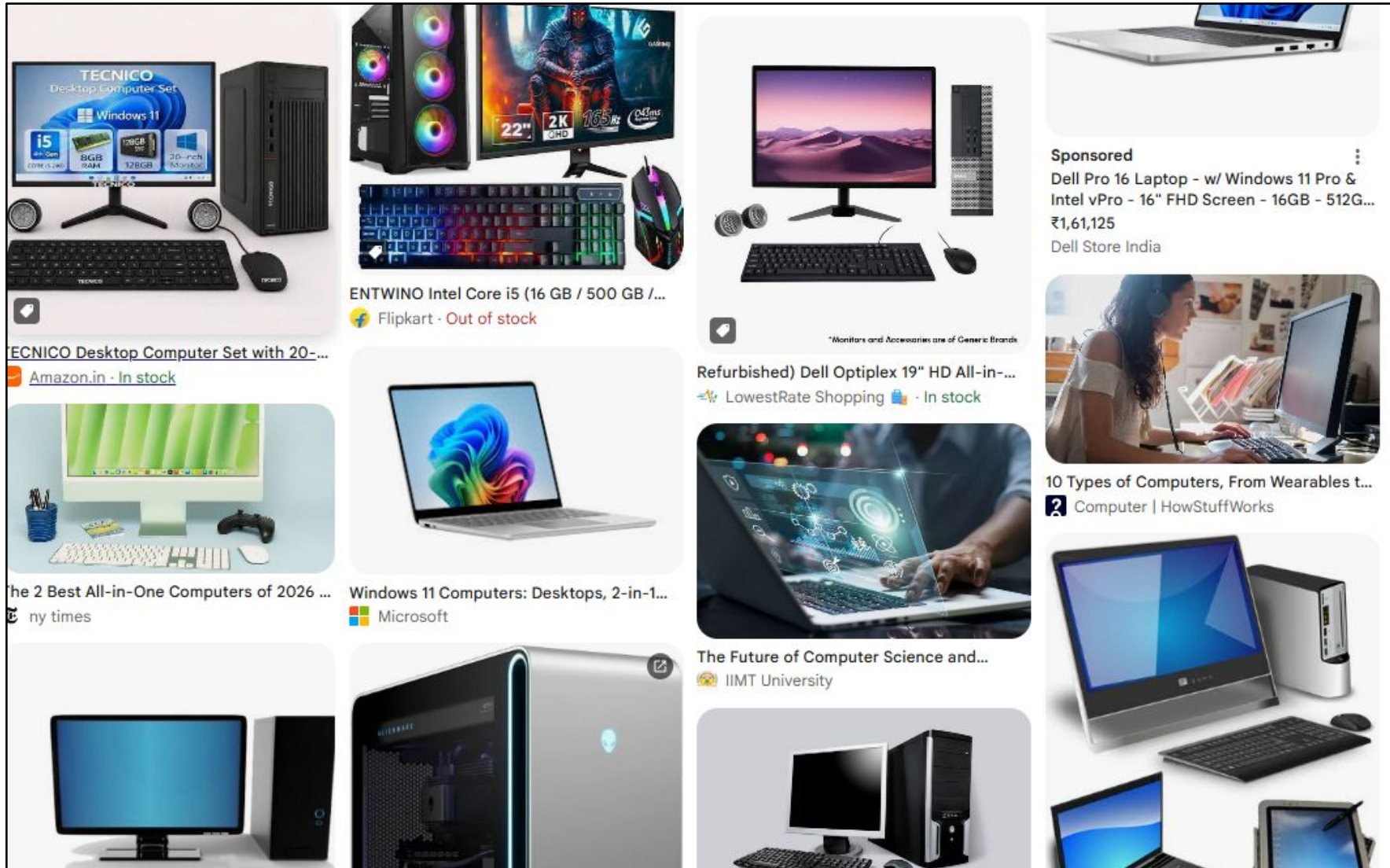
1. Download and upload the video to another channel.
2. Edit the video and claim authorship.
3. Sell the video as part of a paid course.
4. Remove the creator's name and redistribute it.

**Copyright is a legal right  
that protects the original  
work of a creator and  
prevents others from  
copying, using, modifying,  
or distributing it without  
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permitted by law or  
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LEVERAGING

# Open Educational Resources (OERs) in Teaching

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**Whether any of these images can be used in a PPT?**

# MATERIALS AVAILABLE ON THE INTERNET

## COPYRIGHTED MATERIALS

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Use is restricted.  
Permission required from the owner.



Books



Movies / Videos



Music / Audio



Photographs



Software



Articles / Journals



Presentations



Artwork /  
Illustrations

Examples

NETFLIX



prime video

Adobe

Most textbooks, newspapers, research papers, paid courses, etc.

## FREE / OPEN MATERIALS

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Use is allowed as per the licence.  
Can use, share, adapt and remix (as permitted).



Open Textbooks



Open Educational  
Videos



Open Audio



Open Images



Open Courseware



Open Presentations



Open Source  
Software



Open Data

Examples



WIKIPEDIA  
The Free Encyclopedia



Khan  
Academy



MIT  
OPENCOURSEWARE



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creative  
commons

OERs, Open Access articles, Creative Commons content, Open Source software, open data, etc.



**Be Responsible:** Respect copyright. Use materials legally. Give credit to the original creator.



# What Are Open Educational Resources?



### UNESCO (2011) Definition

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 permitting free access, use, adaptation, and redistribution by others.

### COL (2011) Definition

OERs are any educational resources (including curriculum maps, course materials, textbooks, streaming videos, multimedia applications, podcasts, and any other materials that have been designed for use in teaching and learning) that are openly available for use by educators and students, without an accompanying need to pay royalties or license fees” (COL,2011).

*Key idea: OER are defined not by price, but by the PERMISSIONS attached to them.*

Free ≠ Open — free access alone (like a library e-book) doesn't grant the legal right to adapt or redistribute. OER always carries an open license.



 OPEN ACCESS

Creative Commons,  
CC BY

Book

# Quantitative, Qualitative, and Mixed Methodologies in Digital Social Sciences

By Łukasz Sułkowski , Robert Seliga ,  
Zdzisława Dacko-Pikiewicz 

Edition 1st Edition

First Published 2026

eBook Published 7 July 2026

Pub. Location London

Imprint Routledge



# ICT in Higher Education

- **ICT in Teaching and Learning**
- **ICT in Evaluation**
- **ICT in Research**



in teaching learning process ICT can be used for evaluation and



Department of Educational Technology  
SNDT Women's University, Mumbai

National Mission on Education through ICT

MHRD, India



ICT in Teaching and Learning by Prof. Vasudha Kamat



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# The 5R Permissions Framework

David Wiley's framework ( 2014) describes the five permissions an open license grants



## Retain

Make, own, and control copies of the content

Ex: Downloading an open textbook and saving it on your computer



## Reuse

Use the content in a wide range of ways

Ex: Using an OER video in a classroom lecture or uploading it to an LMS



## Revise

Adapt, adjust, modify, or alter the content

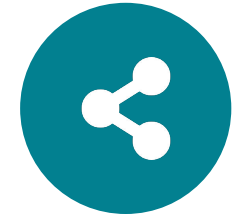
Ex: Translating an English OER into Hindi or Malayalam



## Remix

Combine with other material to create something new

Ex: Creating a new course module by combining chapters from two open textbooks and an open educational video



## Redistribute

Share copies with others, in original or revised form

Ex: Sharing a customized OER through your institution's LMS or an OER repository

# A Brief History of the OER Movement



# Benefits for Students



## Cost Savings

No-cost or low-cost materials ease financial pressure



## Day-One Access

Every student has the text from the first class session



## Improved Outcomes

Comparable or better grades and completion rates in many studies



## Equity

Closes access gaps for low-income and part-time students

## A NATIONAL SNAPSHOT

Students report spending a significant share of their financial-aid budget on course materials each year — money OER adoption returns directly to learners.

*Multi-institution studies of OER adoption consistently report similar or improved pass rates alongside the savings.*

## WHY IT MATTERS

# Benefits for Educators & Institutions



### Customization

Adapt content to fit course goals, local context, and student needs



### Currency

Update materials continuously — no waiting on a new print edition



### Collaboration

Join a global community sharing and improving materials together



### Professional Recognition

Publishing OER builds a scholarly and teaching portfolio

# Types of Open Educational Resources



**Textbooks & Course Packs**



**Full Online Courses /  
MOOCs**



**Videos & Multimedia**



**Assessments & Quiz  
Banks**



**Images, Simulations &  
Datasets**



**Lesson Plans & Syllabi**



## OER in Action: Textbooks & Full Courses



### Textbooks & Course Packs

#### INTERNATIONAL

1. OpenStax
2. LibreTexts
3. Open Textbook Library
4. BCcampus OpenEd
5. Open SUNY Textbooks

#### INDIAN

1. NCERT e-Pathshala
2. e-Gyankosh
3. DIKSHA
4. NIOS
5. NCTE



### Full Courses & MOOCs

#### INTERNATIONAL

1. MIT OpenCourseWare
2. edX
3. Khan Academy
4. Open Yale Courses
5. Saylor Academy

#### INDIAN

1. SWAYAM
2. NPTEL
3. SWAYAM PRABHA ( Video)
4. CEC-UGC
5. IGNOU eGyanKosh

## ● THE LANDSCAPE

### OER in Action: Videos & Assessments



#### Videos & Multimedia

##### INTERNATIONAL

1. Khan Academy Videos
2. TED-Ed
3. Crash Course
4. Big History Project
5. MIT OCW Video Lectures

##### INDIAN

1. NPTEL Video Lectures
2. SWAYAM PRABHA Channels
3. e-Pathshala Videos
4. National Digital Library of India
5. DIKSHA Video Content



#### Assessments & Quiz Banks

##### INTERNATIONAL

1. CK-12 Practice & Quizzes
2. ASSISTments
3. OpenStax Question Banks
4. MERLOT Assessments
5. PhET Assessment Activities

##### INDIAN

1. DIKSHA Quizzes
2. NCERT Exemplar Problems
3. SAFAL (CBSE)
4. IGNOU
5. State OPEN Universities

## ● THE LANDSCAPE

### OER in Action: Media, Data & Lesson Plans



#### Images, Sims & Datasets

##### INTERNATIONAL

1. PhET Interactive Simulations
2. Wikimedia Commons
3. Pexels
4. Pixabay
5. Unsplash (CC0 Images)

##### INDIAN

1. Bhuvan (ISRO)
2. data.gov.in
3. National Data and Analytics Platform (NITI Aayog)
4. State Govt Platforms
5. National Digital Library of India



#### Lesson Plans & Syllabi

##### INTERNATIONAL

1. OER Commons
2. Share My Lesson
3. ReadWriteThink
4. CommonLit
5. TES Free Resources

##### INDIAN

1. DIKSHA Lesson Plans
2. NROER Resources
3. Universities
4. State Universities
5. Digital Repositories

## THE LANDSCAPE

# Creative Commons: Reading the Licenses

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Attribution required

**SA**

Share-Alike — same  
license

**NC**

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only

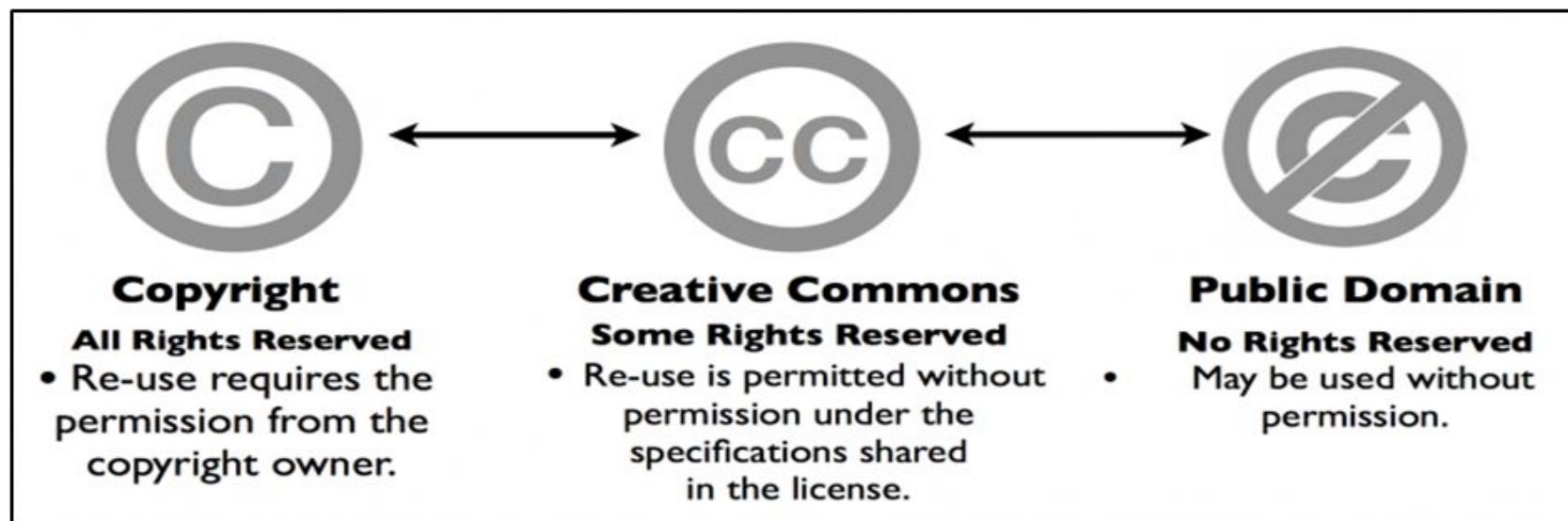
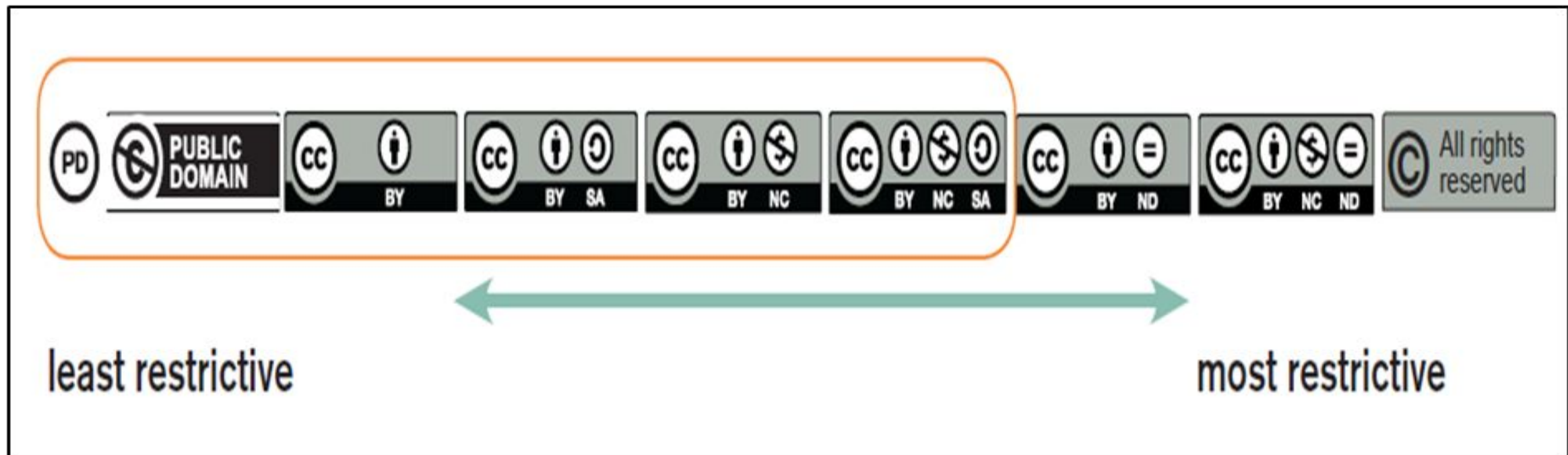
**ND**

No Derivatives allowed



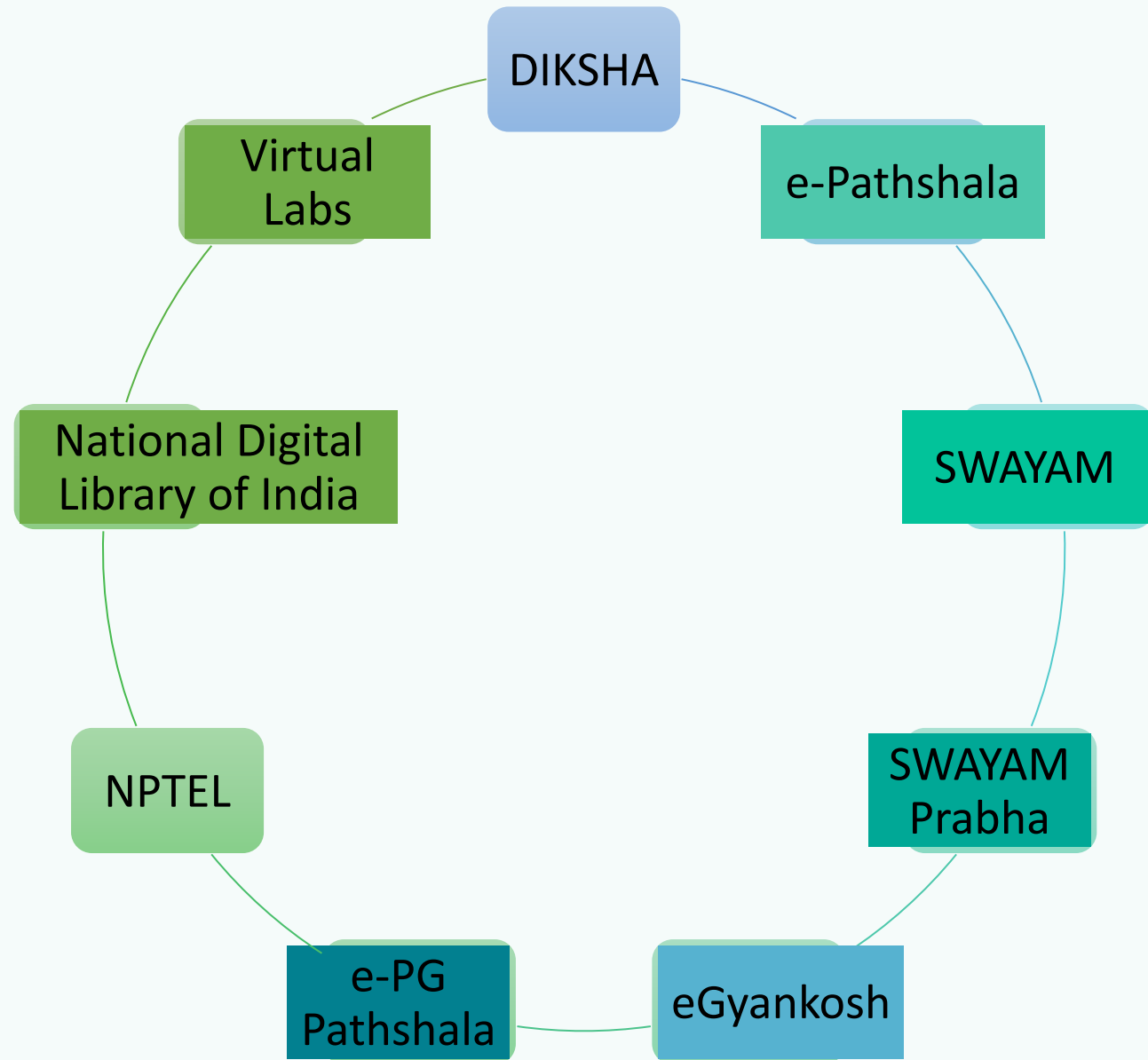
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| License                                                  | Symbol                                                                              | Meaning                                                                                                                                                                                                                |
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## THE LANDSCAPE

# Where to Find OER: Indian Repositories





# Where to Find OER: Key Repositories

## OpenStax

Free, peer-reviewed college textbooks across core subjects

## OER Commons

Searchable library spanning K–12 through higher education

## MERLOT

Curated, peer-reviewed teaching and learning materials

## MIT OpenCourseWare

Full course materials from MIT departments

## Open Textbook Library

Reviewed open textbooks with instructor ratings

## LibreTexts

Collaboratively built open textbooks in STEM and beyond

# Finding the Right OER: A Search Strategy

- 1 Define the learning objective**  
Start from what students must know or do — not from a keyword
- 2 Search multiple repositories**  
Cross-check subject-specific and general OER libraries
- 3 Filter by license and format**  
Match permissions and file type to your intended use
- 4 Preview and check alignment**  
Confirm scope, sequence, and reading level fit your course
- 5 Check reviews and adoption data**  
Favor peer-reviewed or widely-adopted resources

## PUTTING IT INTO PRACTICE

# Evaluating OER Quality



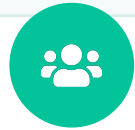
### Accuracy & Currency

Content is correct, well-sourced, and up to date



### Production Quality

Clear writing, working media, consistent formatting



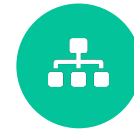
### Accessibility

Compatible with screen readers; meets accessibility standards



### License Clarity

Permissions are clearly stated and fit your intended use



### Alignment

Matches your learning outcomes and course sequence



### Evidence of Use

Reviewed, cited, or adopted elsewhere with positive feedback

## PUTTING IT INTO PRACTICE

# Integrating OER Into Your Curriculum

**01**

### **Audit**

Review  
current  
materials  
& costs



**02**

### **Search**

Locate  
candidate  
OER  
resources



**03**

### **Adapt**

Revise/re  
mix for  
your  
context



**04**

### **Align**

Map to  
syllabus &  
outcomes



**05**

### **Assess**

Gather  
feedback,  
iterate  
yearly

## PUTTING IT INTO PRACTICE

# The 5Rs in Practice: A Remix Example



Start with an open textbook (CC BY)



Revise a chapter's examples for local context



Remix in an open video and a local dataset



Redistribute the new version under the same license

*Because the license permits revising and remixing, this new, contextualized resource can be shared back with the community.*

## Classroom Example

Suppose a teacher wants to prepare a lesson on **Climate Change**:

- **Image:** Use a Creative Commons image from Wikimedia Commons/pixabay.
- **Video:** Embed an educational video from Khan Academy or SWAYAM.
- **Audio:** Include a relevant podcast segment from LibriVox or another openly licensed source.
- **Text:** Use an open textbook chapter from ePathshala.
- **Presentation:** Adapt an openly licensed slide deck from OER Commons.

# Challenges & Barriers to Adoption



### Awareness Gap

Many faculty are unfamiliar with OER or where to find it



### Discoverability

Quality resources can be scattered across many repositories



### Time & Skills

Adapting or remixing material takes time and technical know-how



### Sustainability

Ongoing maintenance and hosting need funding and support



# Strategies to Overcome the Barriers



### **Institutional Support**

Provide grants, release time, and clear policy backing for OER work



### **Professional Development**

Offer workshops on finding, evaluating, and adapting OER



### **OER Champions**

Engage librarians and lead faculty as points of contact and mentors



### **Quality Review Processes**

Establish peer-review and adoption criteria to build trust

# The Future of Open Education



## **AI-Assisted Curation**

Smarter search, translation,  
and quality-checking of open  
content



## **Open Pedagogy**

Students as co-creators of  
OER, not just consumers



## **Adaptive & Personalized OER**

Materials that adjust to  
individual learner needs



## **Global Collaboration**

Cross-border, multilingual  
sharing of open resources

## BRING IT BACK TO YOUR CLASSROOM

# Open Educational Resources Put Great Teaching Within Everyone's Reach

- 1 Explore one repository this week (OER Commons, OpenStax, or MERLOT)
- 2 Identify one costly or outdated resource in your course to replace
- 3 Connect with your library's OER or instructional-design team
- 4 Share what you adapt — keep the 5Rs moving forward

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*Thank you — Questions & Discussion*