Open Educational Resources (OER)

The most visible impact of the Internet on education to date has been the Open Educational Resources movement (OER)

OER Support Achieving SDG(4) Goal and other SDGs

October 28th 2019 **Yarmouk University Irbid Jordan**

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Khalaf Hajim Altell

OBJECTIVES: BY THE END OF THIS WORKSHOP YOU WILL BE ABLE TO:

1- To recognize the importance of the Open educational Resources (OER) and open educational practices (OEP) movement in transforming education

2- To use and apply the Creative Commons Licenses

3-To be familiarized with the process of digital transformation

4-To be familiarized with the need to establish Yarmouk OER Center

Agenda

October 28th/ 9:00-01:30

Background

- The Transformation and Digitization of Education
- The OER/OEP Movement
- The Creative Commons Licenses
- Open Textbooks / Open Courseware/ Open Repositories/The Open Simulation/ Animation
- International Examples
- Impact

Break 1:30-2:00

Lab

- Practice

End 5:00

HIGHER EDUCATION CHALLENGES (GENERAL)

1. Education , acquisition of knowledge continues to be defined as a process of teaching rather than learning.
2. Lacking behind in the digital transformation of education
3. Increasing cost of providing education

Access/Internet?

4. Lack of sharing and collaborations
5. Lack of transparency of education practices among higher institutes

4 years system?

6. High student staff ratio
7. Duplication and waste of effort
8. lack of flexibility to validate knowledge acquired outside the institutional structure

Higher Education In Jordan
Challenges

1-Cruel mismatch between the focus of university programs and the needs of the labor market.

2-Education , acquisition of knowledge continues to be defined as a process of teaching rather than learning. Poor Quality

3-Increasing cost of providing education

4-Lack of sharing and collaborations

5-Lack of transparency of education practices among higher institutes

6-Minimum use of technologies

7-High student staff ratio

8-Duplication and waste of effort

9-Inability to meet present and future Higher education participation and enrolment

10-The obsoleteness of higher education and poor quality of resources

11-lack of flexibility to validate knowledge acquired outside the institutional structure

12-The Challenge of the English Language

أ.د. عبد السلام المجالي -أ. د. فوزي غرايبة-أ. د. وليد المعاني-أ. د. مروان راسم كمال أ. د. محمد عدنان البخيت-أ. د. عبد الرحيم الحنيطي-أ. د. أنور البطيخي-أ. د. وجيه عويس أ. د. عادل الطويسي-أ. د. ماهر سليم-أ. د. أحمد يعقوب المجدوبة-د. شهلا العجيلي د. وفاء عوني الخضرا

1-مجله البحث العلمي العدد(1) ت1-ك1 (2009)

2-منتدى تطوير التعليم العالي شباط 2007

3-مؤتمر (التعليم.. واقع وطموح) يونيو 2015

New Challenge

The Effect of digitization/ the 4th industrial revolution on Universities

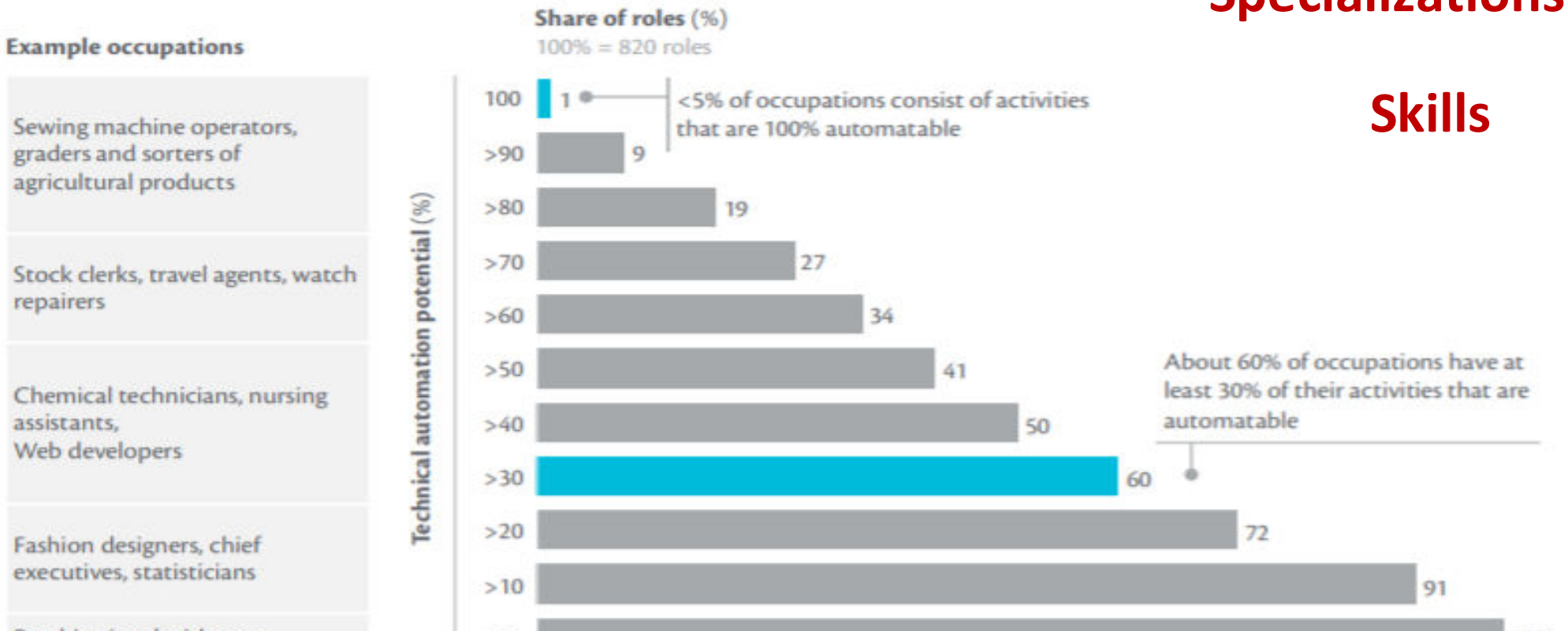
Exhibit 2

WHILE FEW OCCUPATIONS ARE FULLY AUTOMATABLE, 60 PERCENT OF ALL OCCUPATIONS HAVE AT LEAST 30 PERCENT TECHNICALLY AUTOMATABLE ACTIVITIES

Automation potential based on demonstrated technology of occupation titles in 6 Middle East countries (cumulative)[1]

Specializations?

Skills



Digital Transformation of Education

Teacher/Lecturer

Student

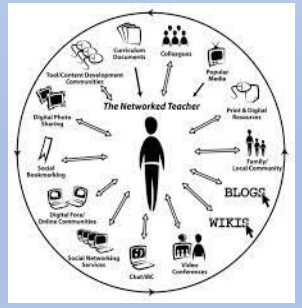
Classroom

Teacher Centered

Closed

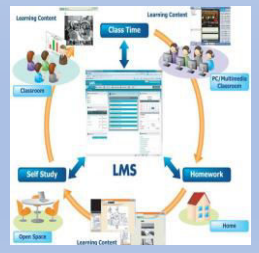
Analog

Facilitator



Learner

Virtual Space



Student Centered

Open

Digital

AI

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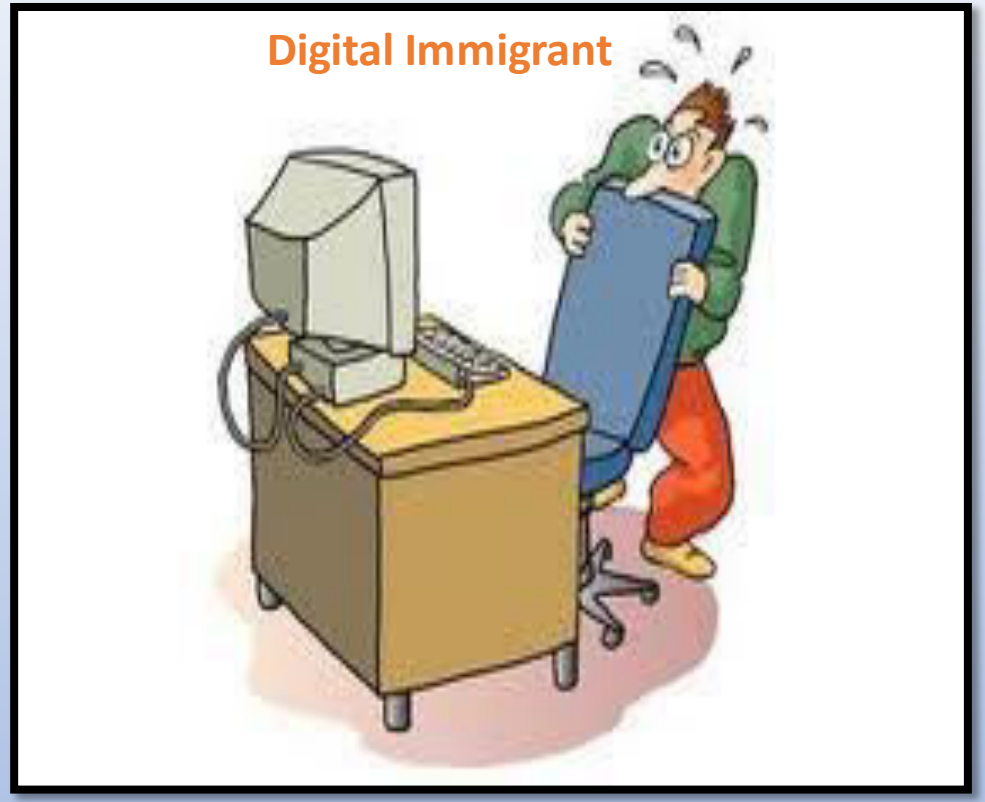
Staff Challenge



The single largest problem facing the digital world as our Digital Immigrant instructors are struggling to teach a population that speaks an entirely new language. Therefore it is critical to understand their needs and learning styles and customize instructions to them.

Digital Native Learners	Digital Immigrant Teachers
Prefer receiving information quickly from multiple multimedia sources.	Prefer slow and controlled release of information from limited sources.
Prefer parallel processing and multitasking.	Prefer singular processing and single or limited tasking.
Prefer processing pictures, sounds and video before text.	Prefer to provide text before pictures, sounds and video.
Prefer random access to hyperlinked multimedia information.	Prefer to provide information linearly, logically and sequentially.
Prefer to interact/network simultaneously with many others.	Prefer students to work independently rather than network and interact.
Prefer to learn "just-in-time."	Prefer to teach "just-in-case" (it's on the exam).
Prefer instant gratification and instant rewards.	Prefer deferred gratification and deferred rewards.
Prefer learning that is relevant, instantly useful and fun.	Prefer to teach to the curriculum guide and standardized tests.

History and Development of the OER Movement/1

- In **2001**, the **Massachusetts** Institute of Technology (MIT), in an unprecedented move, announced its decision to release all its course catalogue on the internet with an **open license** to the public

- As the number of institutions offering free or open courseware increased, **UNESCO** organized the **1st Global OER Forum in 2002**(impact of OER on D.C.) where the term **Open Educational Resources (OER)** was first adopted to describe OERs as:

- ***"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."***

History and Development of the OER Movement/2

- The Creative Common Organization (NPI) was established in 2001 and its first creative common(CC) open license was introduced in 2002.
- The global movement for OER culminated at the 1st World OER Congress convened in Paris on 20–22 June 2012 by UNESCO, COL and other partners.
- The resulting Paris OER Declaration (2012), urged all government especially developing countries to adopt the OER movement
- In 2018, the 2nd World OER Congress organized by UNESCO, in Slovenia , with delegates from 111 countries adopted the Ljubljana OER Action Plan It recommends 41 actions to mainstream open-licensed resources to achieve the 2030 Sustainable Development Goal 4 on “quality and lifelong education".

Definition of OER

1-The William and Flora Hewlett Foundation "OER are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge."

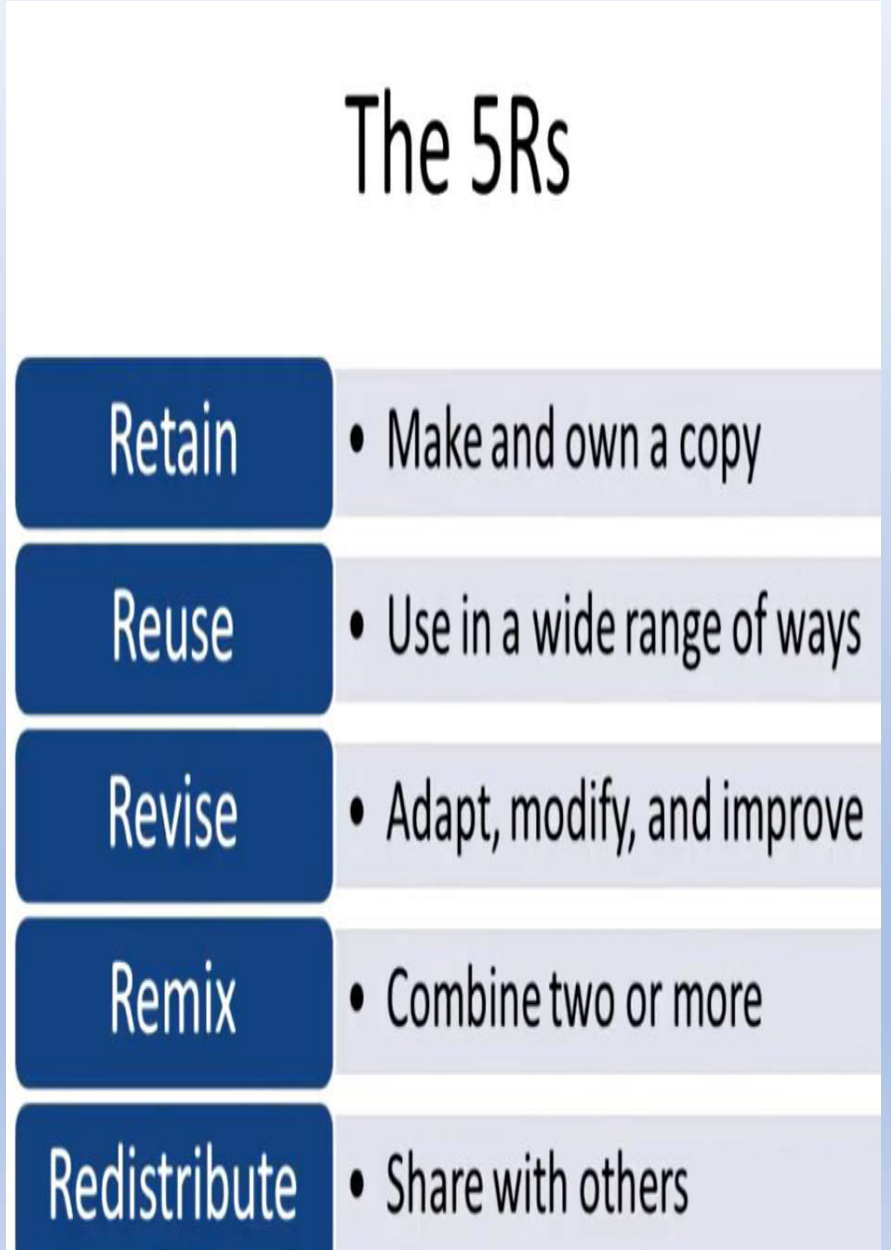
2- *OECD (Organization for Economic Co-operation and Development)*

منظمة التعاون الاقتصادي والتنمية

"Digitized materials offered freely and openly for educators, students, and self-learners to use and reuse for teaching, learning, and research. OER includes learning content, software tools to develop, use, and distribute content, and implementation resources such as open licenses."

SO : What are Open Educational Resources

- Any kind of teaching materials, textbooks, syllabi, lesson plans, videos, exams assignments, lecture notes…….
- Are "free"(garneted by an Open license) to anyone to access and,
- Include free permission to engage in the 5Rs activities
- Include digital tools to engage, deliver, facilitate , license and manage OER.



Open # Free

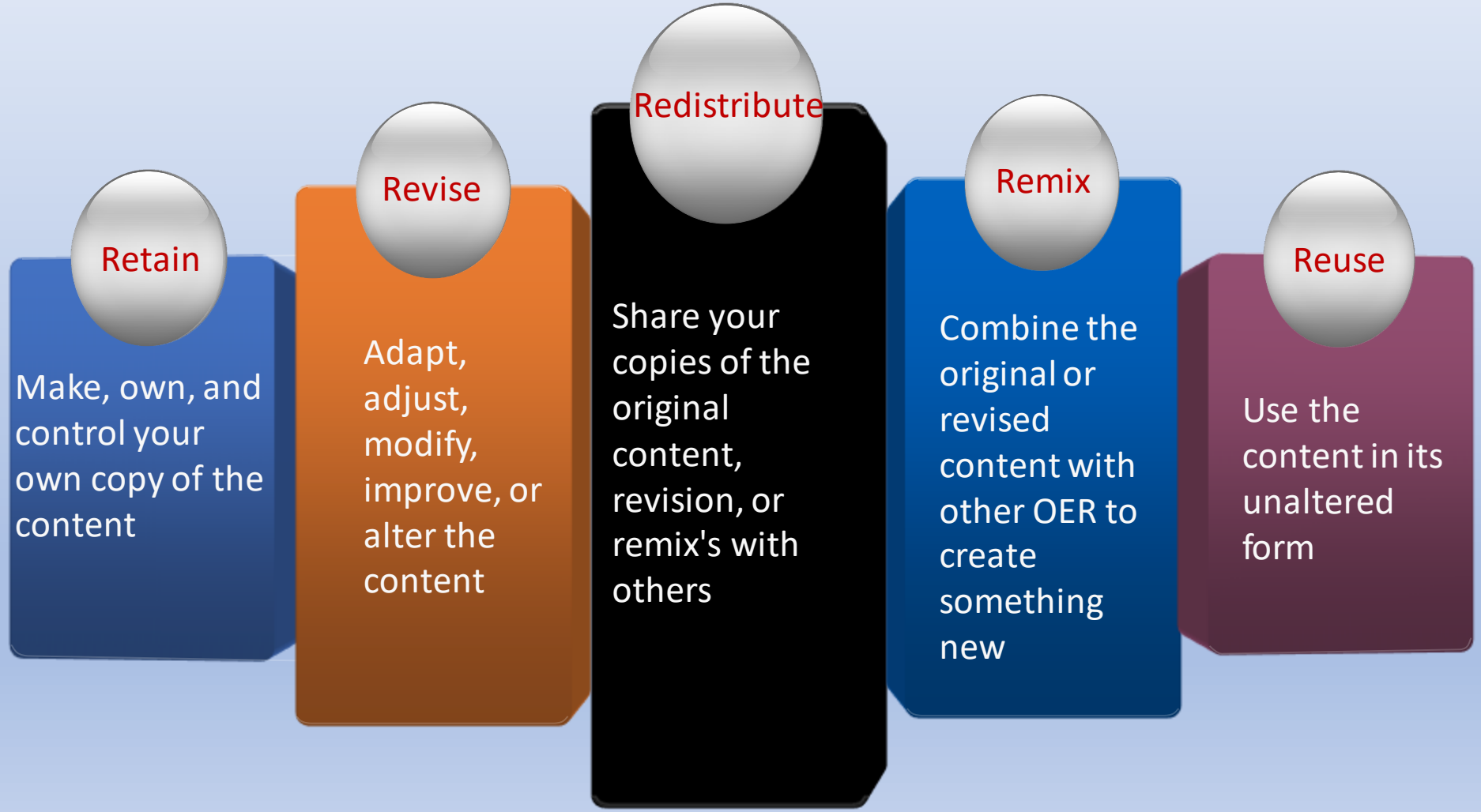
Creative Commons

David Wiley 2013

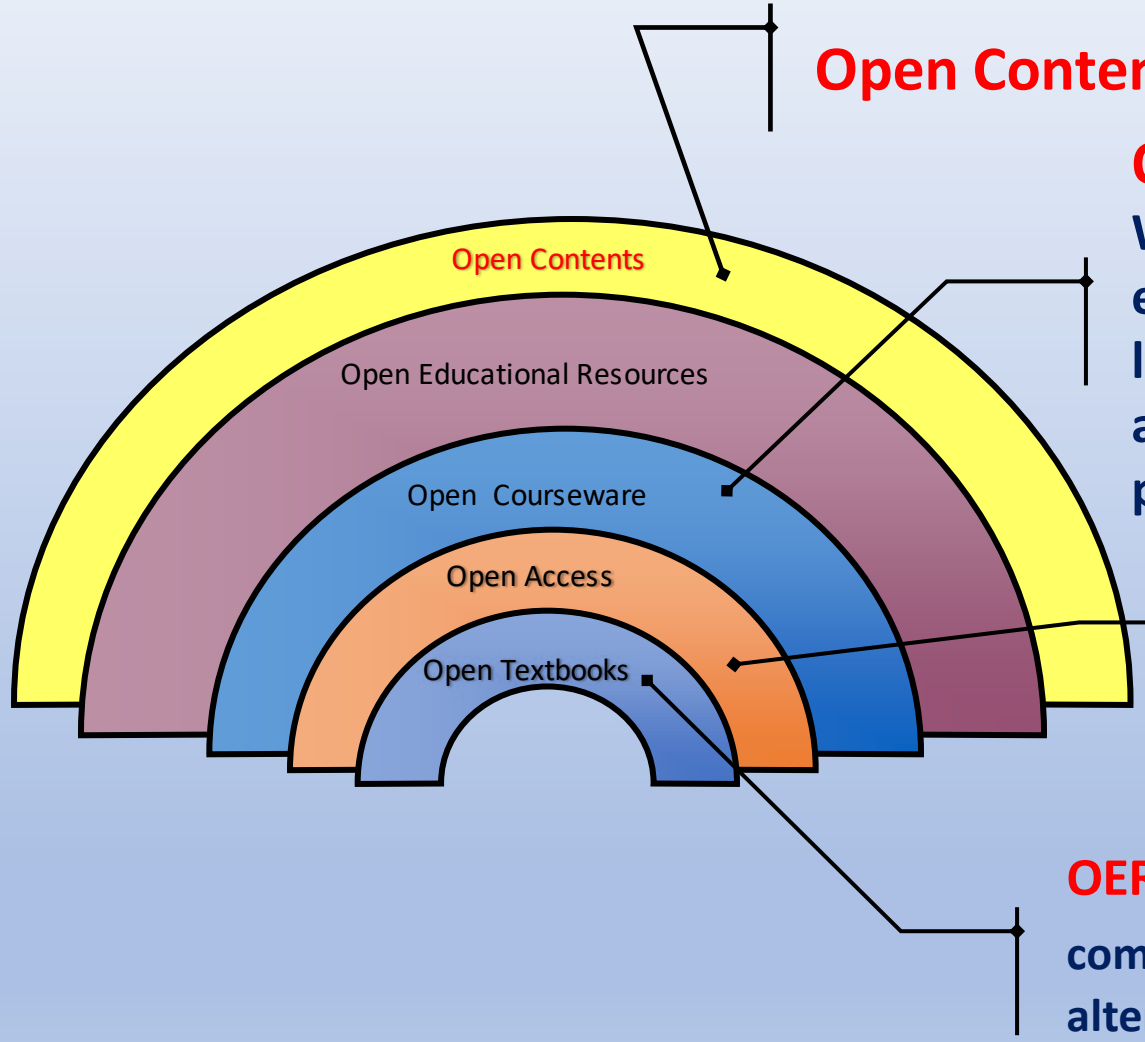
The 5Rs

Retain	• Make and own a copy
Reuse	• Use in a wide range of ways
Revise	• Adapt, modify, and improve
Remix	• Combine two or more
Redistribute	• Share with others

5Rs: The Powerful Rights of "Open" In OER



OER Content



Open Couse Ware (OCW): Open Course Ware is the digital publication of high quality educational materials that are freely and openly licensed, and are available online to anyone, anytime. They frequently include course planning and

Open Access (OA) means that items of scholarly work are made available online, in a digital format, at no charge to the reader and with limited restrictions on re-use.

OER Textbooks: The rapid rise in the cost of textbooks, combined with the high demand for affordable alternatives, has led to the emergence of new open publishing efforts for textbooks and other OER

Open Educational Resources Available on the Internet

- Science
- Engineering
- Art
- Math
- IT
- Etc.

- Whole courses
- Lecture notes
- Presentation slides
- Lecture hand-outs
- Lecture recordings
- Assignments
- Tests or Exams
- Reading lists
- Images
- Videos
- Simulations
- Text books
- Students' work
- Etc.

Google

About 2400000 September 2019

INCREASING DAILY

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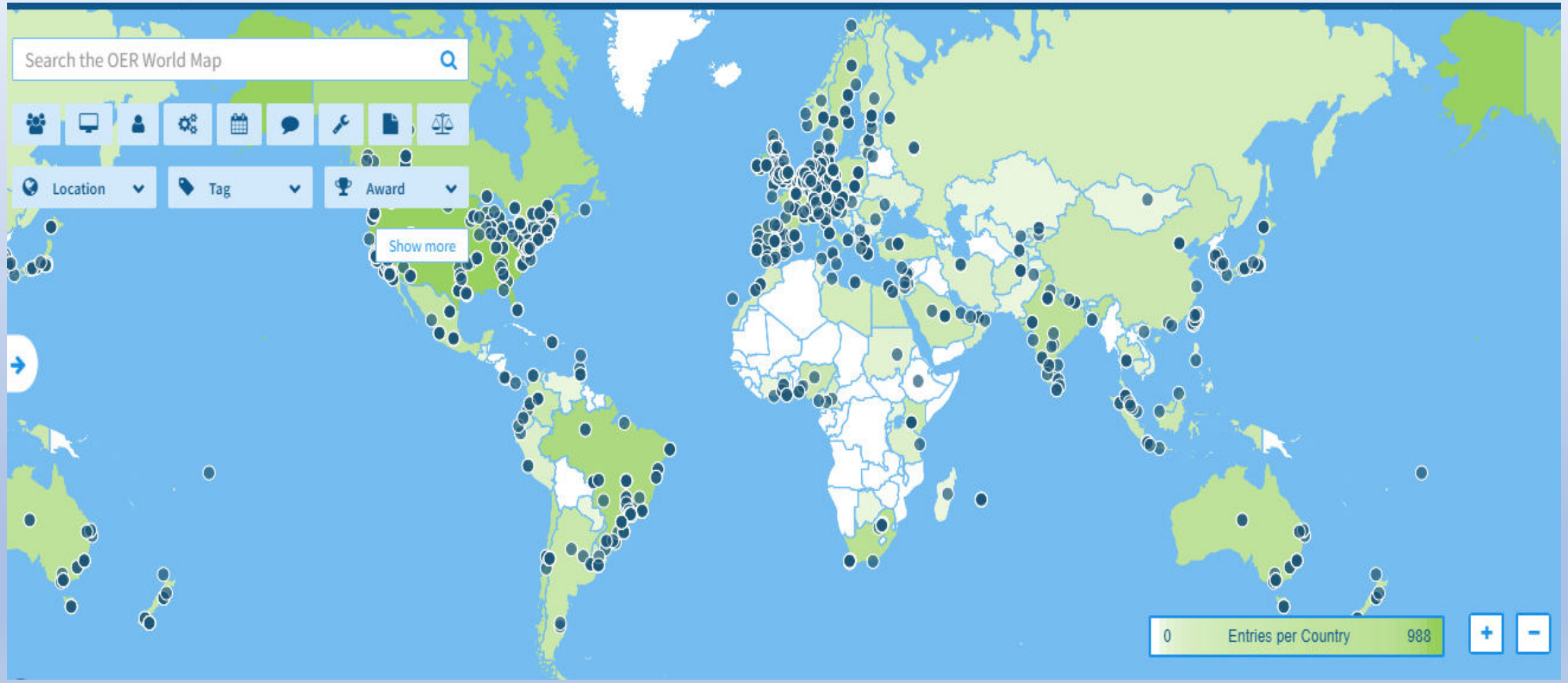
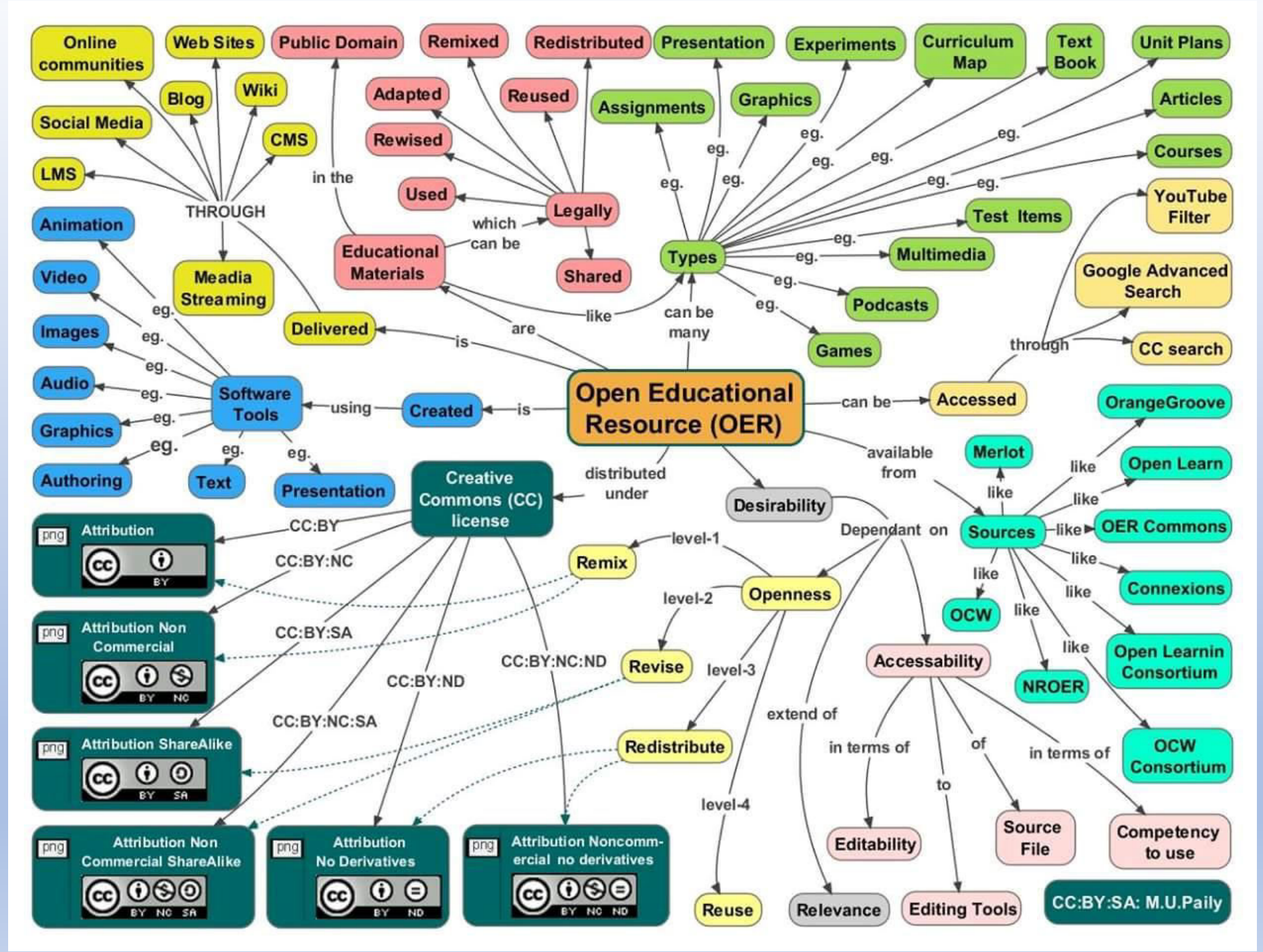
OER WORLD MAP




Online communities
Web Sites
Public Domain
Remixed
Redistributed
Presentation
Experiments
Curriculum Map
Text Book
Unit Plans
Articles
Courses
YouTube Filter
Google Advanced Search
CC search
Blog
Wiki
Social Media
CMS
LMS
THROUGH
in the
Adapted
Rewised
Used
Reused
Legally
which can be
Shared
Educational Materials
Assignments
Graphics
eg.
Types
Test Items
Multimedia
Podcasts
Games
Animation
Video
Images
Audio
Graphics
Authoring
Meadia Streaming
Delivered
is
are
like
can be many
through
Software Tools
using
Created
is
Open Educational Resource (OER)
can be
Accessed
Text
Presentation
distributed under
Creative Commons (CC) license
available from
Merlot
OrangeGroove
Open Learn
OER Commons
Connexions
Open Learnin Consortium
OCW Consortium
Competency to use
Source File
Editability
Editing Tools
Relevance
Reuse
Desirability
Dependant on
Sources
like
OCW
NROER
Accessability
Openness
Remix
Revise
Redistribute
level-1
level-2
level-3
level-4
extend of
in terms of
to
of
CC:BY
CC:BY:NC
CC:BY:SA
CC:BY:ND
CC:BY:NC:ND
CC:BY:NC:SA
Attribution
Attribution Non Commercial
Attribution ShareAlike
Attribution Non Commercial ShareAlike
Attribution No Derivatives
Attribution Noncomm-ercial no derivatives
CC:BY:SA: M.U.Paily

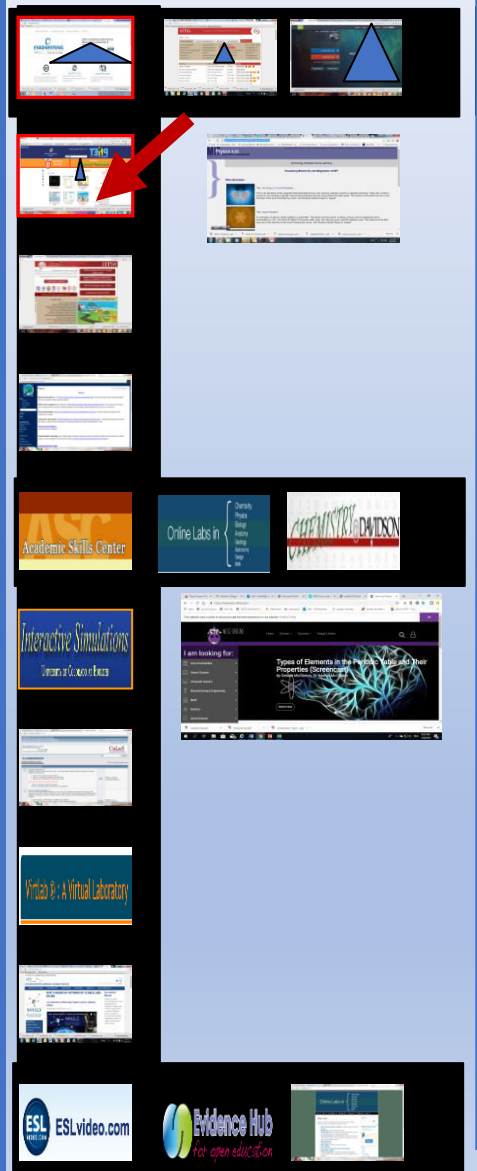
Ecosystem

Selected Examples

English Speaking

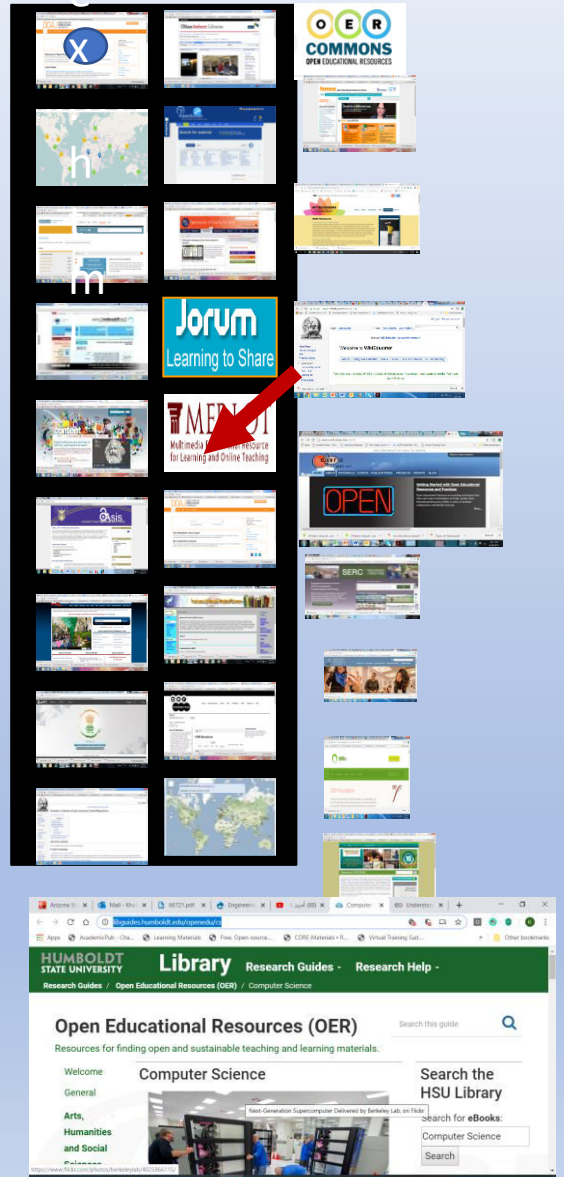
Open Courseware

Open Videos Lectures, simulation, animation



Open Text book

Open Access Repositories, Portals , libraries…

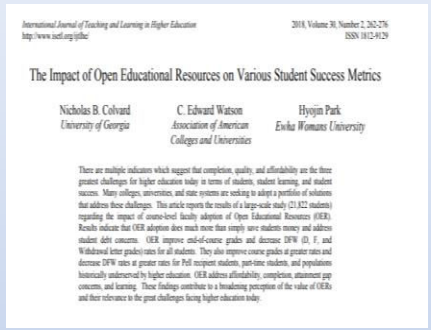


EXAMPLES OF INSTITUTIONS PROMOTING OER

- UNESCO
- Commonwealth of Learning COL
- ALESCO
- OECD
- The William and Flora Hewlett Foundation
- Ford Foundation Vancouver Foundation, and Wikimedia Foundation
- Shuttle worth Foundation
- Gates Foundation
- World Bank
- World governments
- Many others

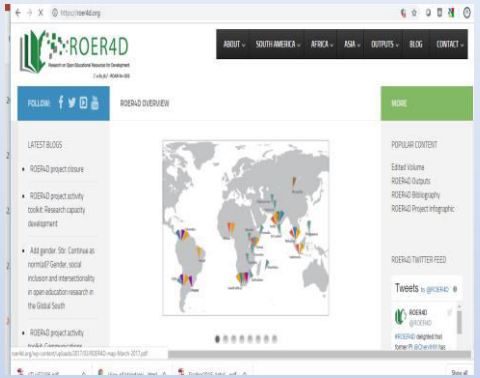
grants of approximately $2.0 billion in 2015
USA

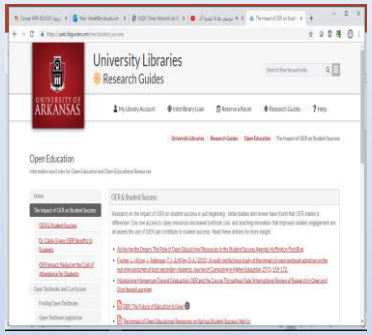
OER IMPACT STUDIES

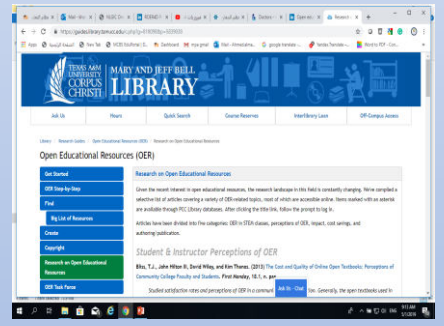

The Impact of Open Educational Resources on Various Student Success Metrics

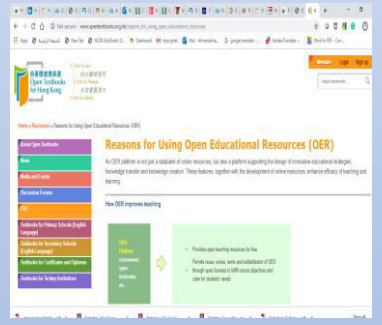
Nicholas B. Colvard, University of Georgia
C. Edward Watson, Association of American Colleges and Universities
Hyojin Park, Ewha Womans University

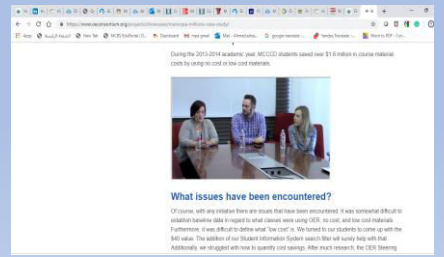
There are multiple indicators which suggest that completion, quality, and affordability are the three greatest challenges for higher education today in terms of students, student learning, and student success. Many colleges, universities, and state systems are seeking to adopt a portfolio of solutions that address these challenges. This article reports the results of a large-scale study (21,822 students) regarding the impact of course-level faculty adoption of Open Educational Resources (OER). Results indicate that OER adoption does much more than simply save students money and address student debt concerns. OER improve end-of-course grades and decrease DFW (D, F, and Withdrawal letter grades) rates for all students. They also improve course grades at greater rates and decrease DFW rates at greater rates for Pell recipient students, part-time students, and populations historically underserved by higher education. OER address affordability, completion, attainment gap concerns, and learning. These findings contribute to a broadening perception of the value of OERs and their relevance to the great challenges facing higher education today.

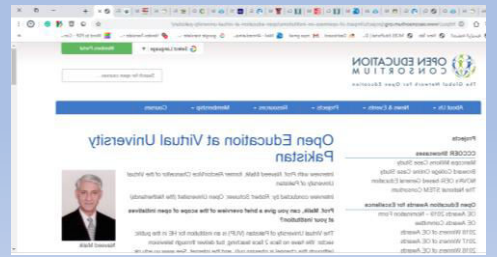












- Reduce failure rate
- Reduce drop out rate and students withdraw
- Increase retention rate
- Improve students grades
- Improve quality
- Decrease costs
- Support Digitization of Education

SB

COPYRIGHT

Intellectual Property Rights

Intellectual Property Rights protect the fruits of the human mind. They are property rights which means they behave like property. You can rent Intellectual Property Rights, we refer to it as **licensing.** You can own Intellectual Property Rights. You can buy, you can sell and you can share them.

Intellectual Property Rights(IPR) Registration

- ***Copyright – automatic right protecting creative works, does not need registration***

Education Concern

- **Patents* – registration required for innovative ideas**
- **Trademarks* – registration required for signs/symbols distinguishing specific product or service**
- **Registered Designs* – registration protecting specific designs**
- **Databases - collection of independent works, data and other material arranged in a systematic/methodical way or accessible by electronic or other means.**

Understanding copyright

- Copyright is a type of intellectual property which grants the owner of the copyright exclusive rights to control how their work is used, reproduced and credited.
- Works acquire copyright automatically, without the need to register the work. Copyright is granted to new works when they are recorded in a material form, such as being written down or saved on a computer.
- Copyright lasts for the lifetime of the creator, plus usually an additional few decades following their death, depending on the type of work.

Jordan Copyright Laws

So What Is **Copyright ?**

- It protects the physical manifestation of an idea.
- Something you see touch or hear.
- Must be original and show skill and judgment

It does not protect information or facts, principles, concepts or ideas.

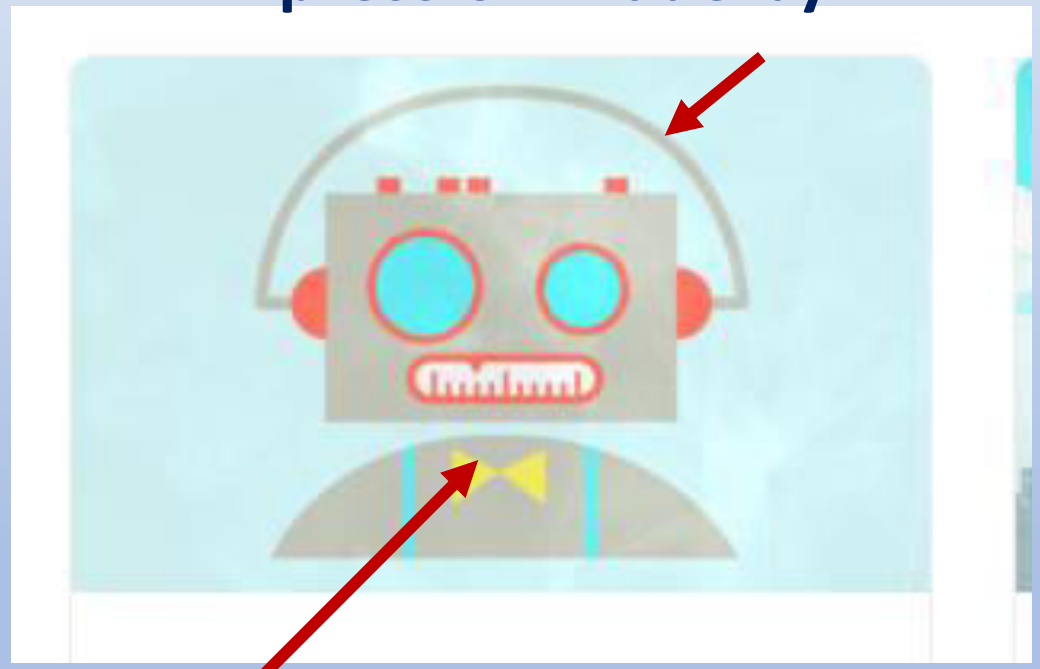
It only protects the way in which an author has chosen to express a particular idea in words or music or art.

Example

Idea/Gematric shapes

that the robot should be made up of simple geometric shapes, but with a mouth like a thermometer or a ruler.

Expression Made by Ali



Copyrighted

Expression Made by Ana

Copyrighted

Origin
https://www.copyrightuser.org/about-us/

Copyright VS Plagiarism

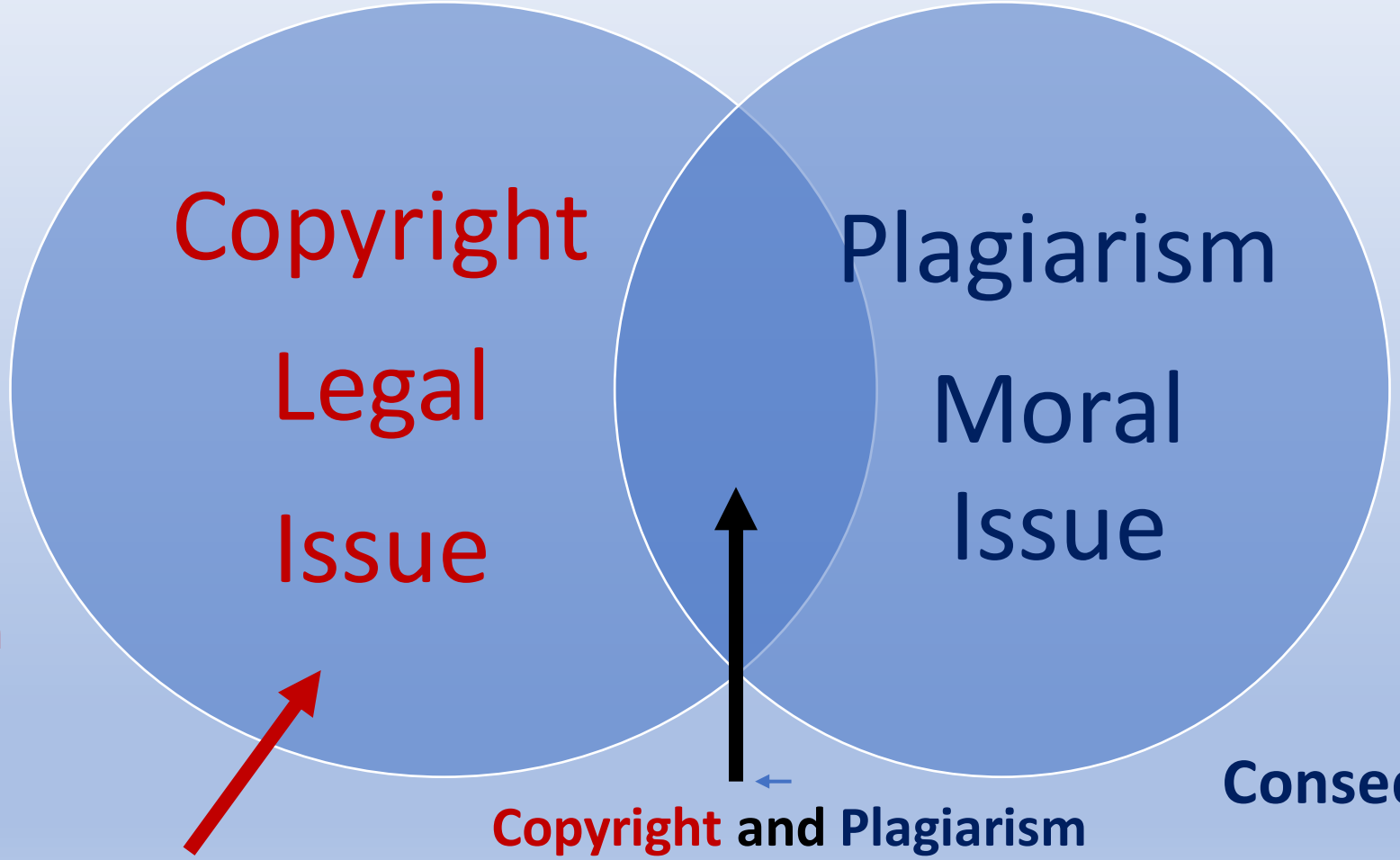
You Take it Without Permission

You don’t say where you took it from

حقوق النشر

is the use of works protected by copyrig ht law without permission for a usage where such permission is required

piracy



سرقة أدبية

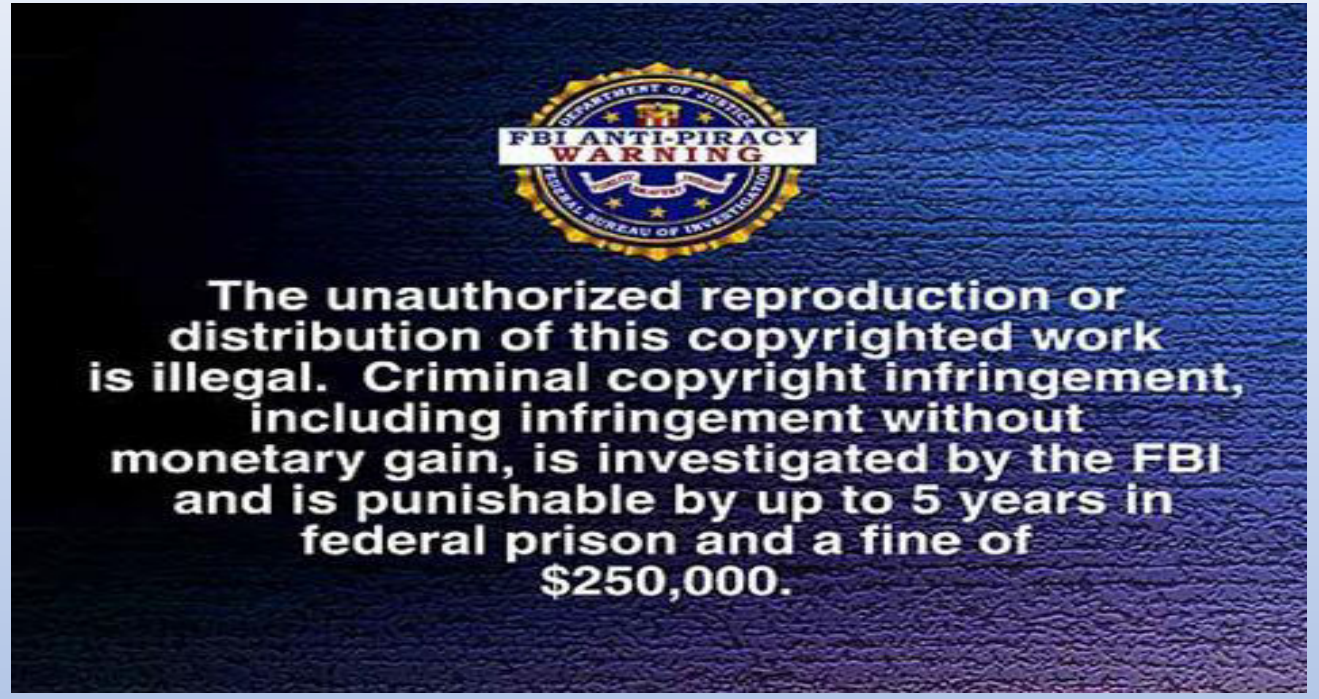
the practice of taking someone else's work or ideas and passing them off as one's own.

Copyright and Plagiarism

Consequences

Infringement Punched By the Law

COPYRIGHT INFRINGMENTS EXAMPLE



One Case of Infringements 3Publishers of commercial Textbooks (CAMBRIDGE UNIVERSITY PRESS, OXFORD UNIVERSITY PRESS, INC., SAGE PUBLICATIONS, INCued) Sued Georgia State University For using excerpts from digital textbooks for their students

The university payed to the publishers totaling $4,722,686.24 in FY 2009 and $5,165,445.10 in FY 2010,

Copyright Laws

In Almost All Countries (Including Jordan) Copyright laws:

"Everything you put on the internet is copyrighted automatically for your lifetime + "70" years"

An author or creator is the *copyright holder* for any work they publish that is attributed to them, whether or not copyright is clearly stated in the work or by any other means. If an employee creates, during employment, a work related to the activities or business of the employer, or by using the material placed under their disposal to arrive at the work, then the copyright shall be that of the employer unless agreed otherwise in writing.
(see Article 6 of the Jordanian Copyright Law)

COPYRIGHT
On the Internet

In the digital environment – the Internet world – an enormous amount of the material we wish to access will be subject to copyright law

Copyright law provides that you cannot reproduce/copy or communicate/transmit to the public copyright material (literary, dramatic, musical and artistic works, films and sound recordings) without the permission of the copyright owner

All rights reserved

In most countries, copyright is automatic; creators do not need to register or even mark their work with the © symbol to be granted copyright.

*photobucket.com/images/**devil**%20gif*

Ziominds Learning

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Educational Resources Available on the Internet

BY RESOURCE

- Whole courses
- Lecture notes
- Presentation slides
- Lecture hand-outs
- Lecture recordings
- Assignments
- Tests or Exams
- Reading lists
- Images
- Videos
- Simulations
- Text books
- Students' work
- etc.

BY SUBJECT

- Science
- Engineering
- Art
- Mathematic
- Computer Science
- Physics
- Humanities
- Economy
- Human Resource
- Etc.

Before 2002

Monopoly of Giants

HUMAN KNOWLEDGE IS DIGITIZED

HUMANS ARE CONNECTED

Digitization of information in all media, combined with its increasingly widespread access, has introduced significant challenges regarding how to deal with issues of intellectual property such as copyright.

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The Situation 2000

Full Copyright:

all rights reserved

Knowledge is Locked

Public Domain:

no rights reserved

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Conflicting Issue

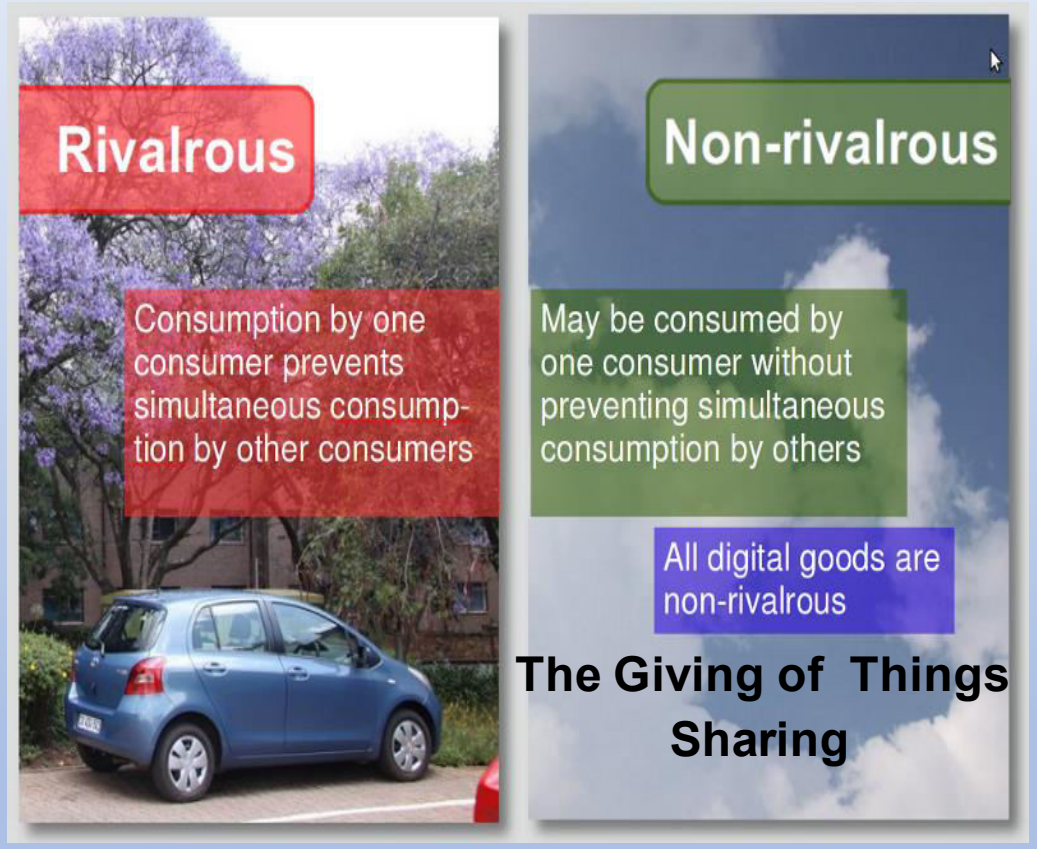
Internet Enables ⟷ Copyright Forbids

The Problem of Rights on the internet

Copy right forbids what technology allows

The Magic of the Internet (CDEV)

- The Cost of a Copy (C)
- The Distribution (D)
- Economy of Scarcity (E)
- Value of Things (V)



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The Magic of the Internet (CDEV)

	Handwriting	Printing Press	Internet
Copying a book	$1000s per copy	$1s per copy	$0.0001s per copy
Distributing a book	$1000s per copy	$1s per copy	$0.0001s per copy

Education Is Sharing

Solution is the open license?

- Open content, including Open Educational Resources (OER), can be described as legally free. This legal freedom is expressed through a license — called an open license — through which the copyright holder grants permission to use, access and re-distribute work with few restrictions.

- For example, a set of lesson plans made available under a Creative Commons open license on a website means that anybody is free to view, print and share the work. The majority of Creative Commons licenses also provide permission to adapt and change the work, and share your adapted content online or in print.

CREATIVE COMMONS LICENSE

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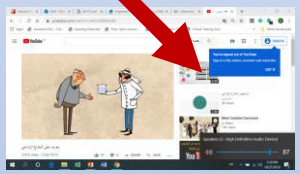
CREATIVE COMMONS LICENSE

Lawrence Lessing
2002



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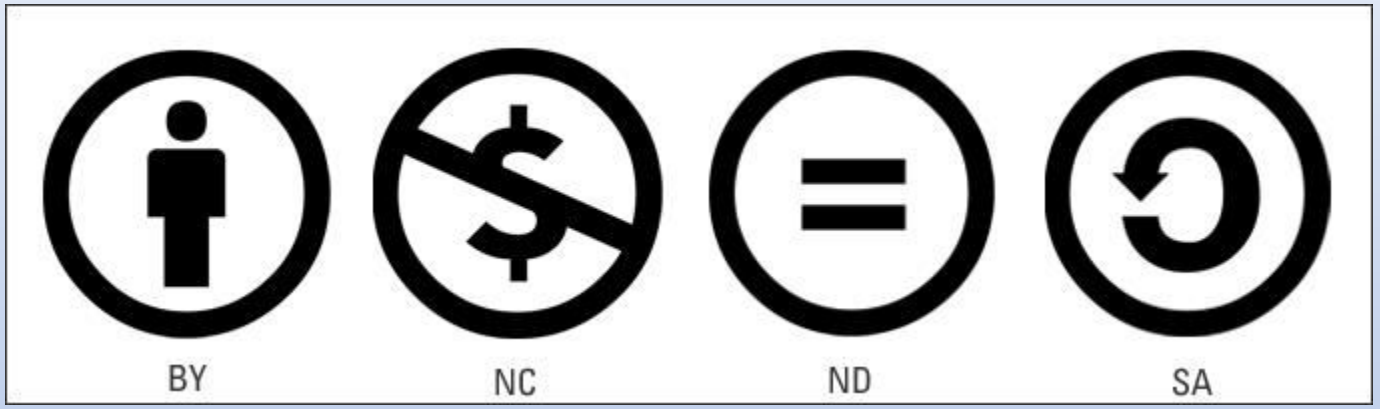
Education Resources On The Internet After Creative Commons 2002



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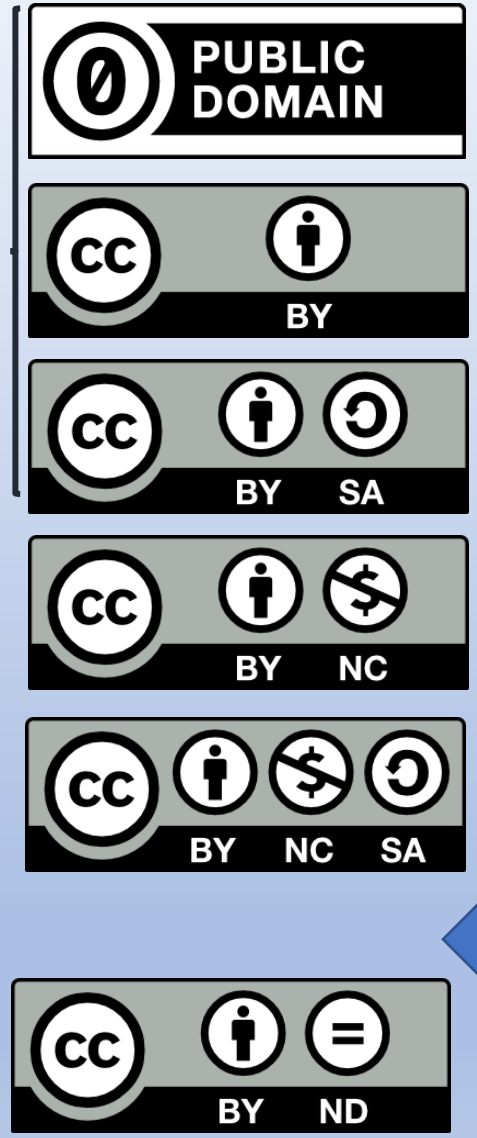
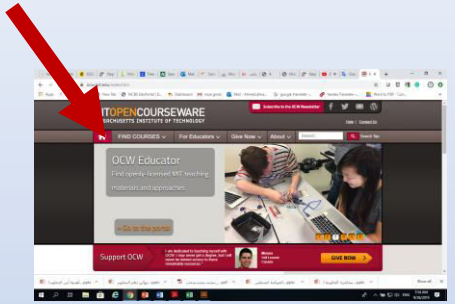
most free

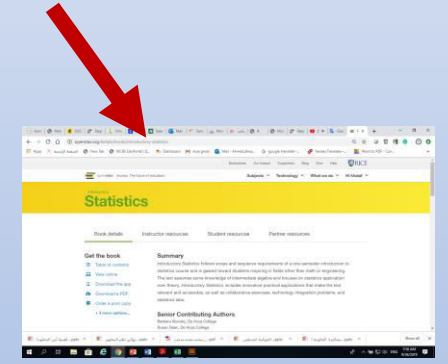


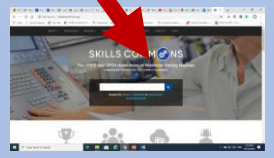
least free

OER 5Rs

- Retain
- Reuse
- Revise
- Remix
- Redistribute







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CREATIVE COMMONS LICENCES

Three “Layers” Of Licenses

Machine Readable

```
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src="https://i.creativecommons.org/l/by/4.0/88x31.png"
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href="http://creativecommons.org/licenses/by/4.0/">Creative
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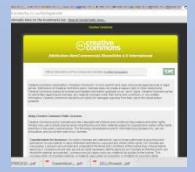
Human Readable



Legal Code

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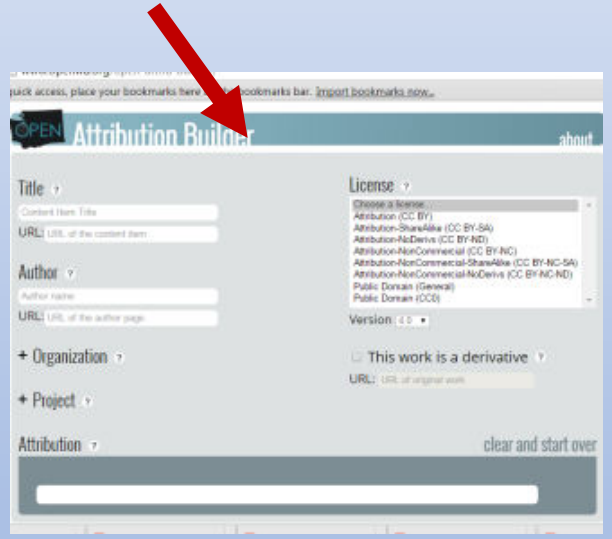
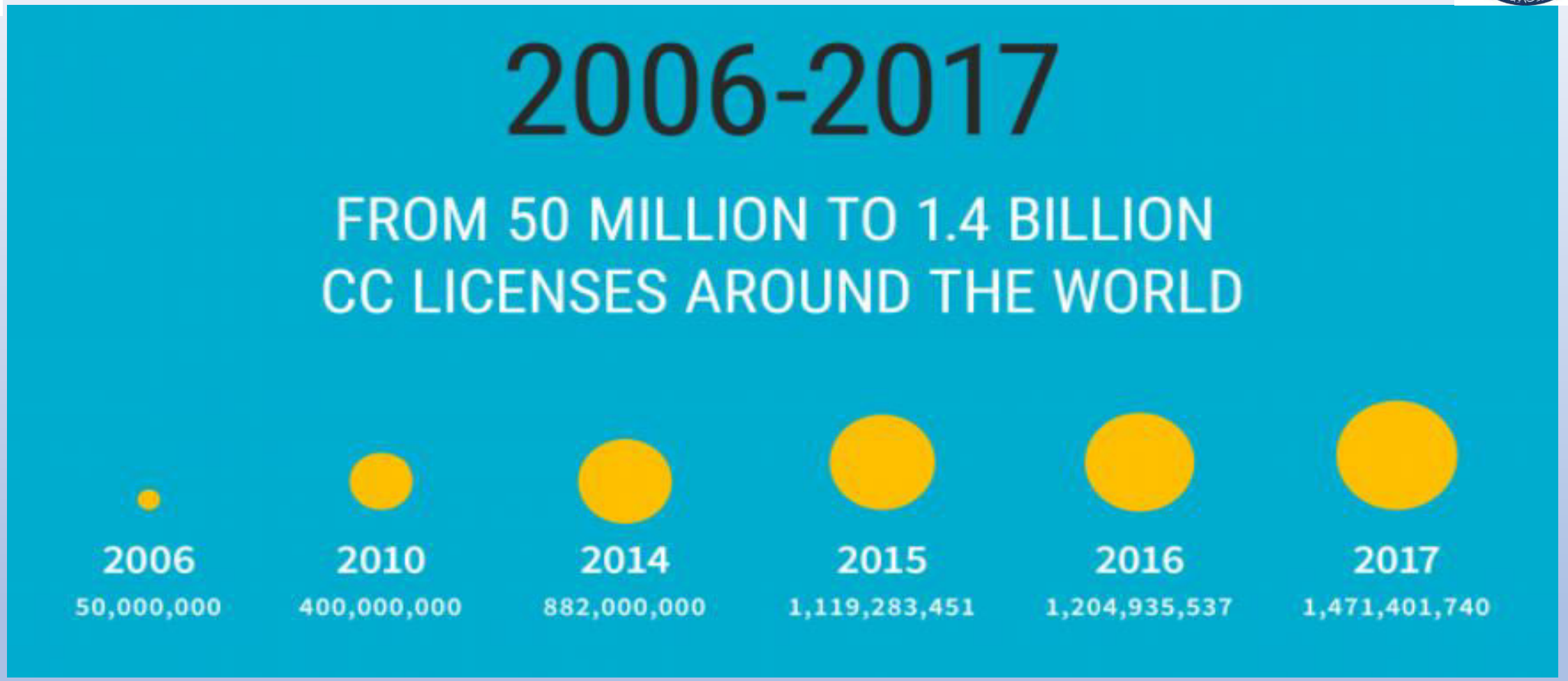
How TO License Your Work(Resource)

In Less than 2 Minutes



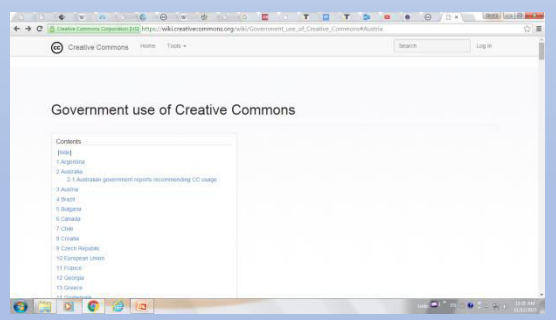
State of the Commons

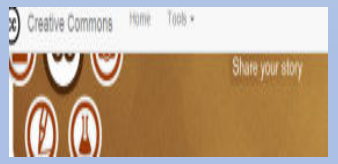


Almost 2 Billion in 2019

Creative Commons Examples

Governments

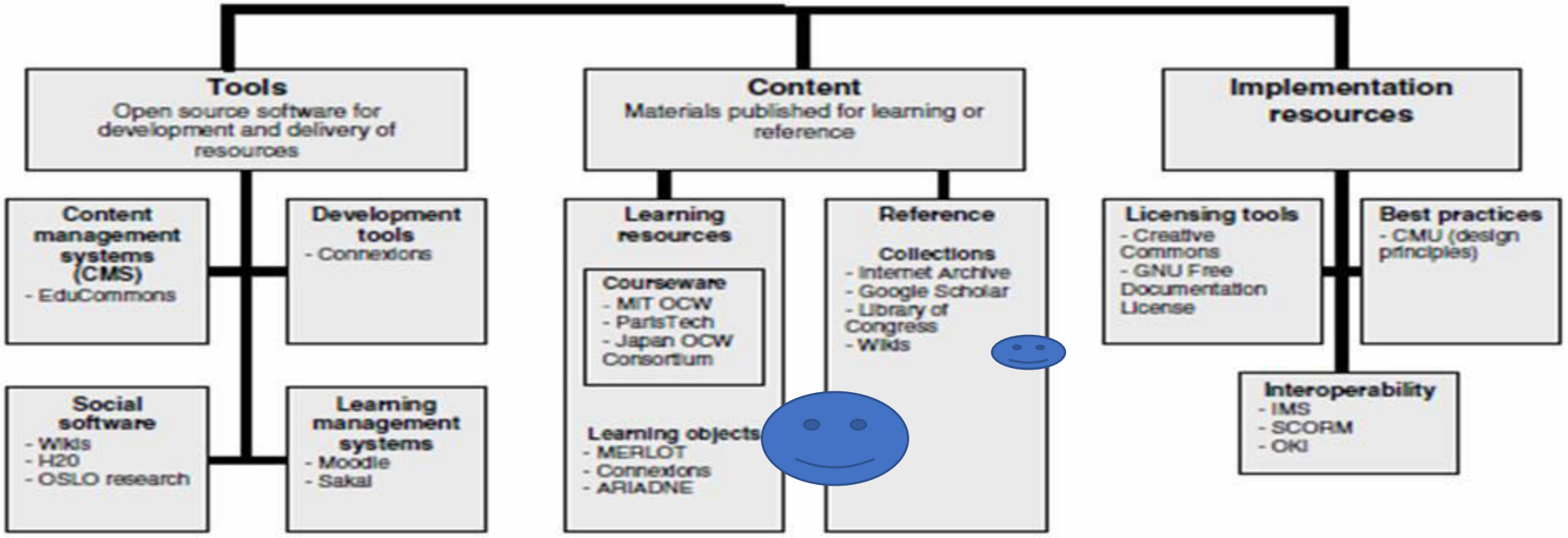




OER Transformation to OEP

OER Transformation to OEP

Figure 2.1. Open educational resources: a conceptual map



Stage 1 2001-2007/9 OER

Source: Margulies, 2005.

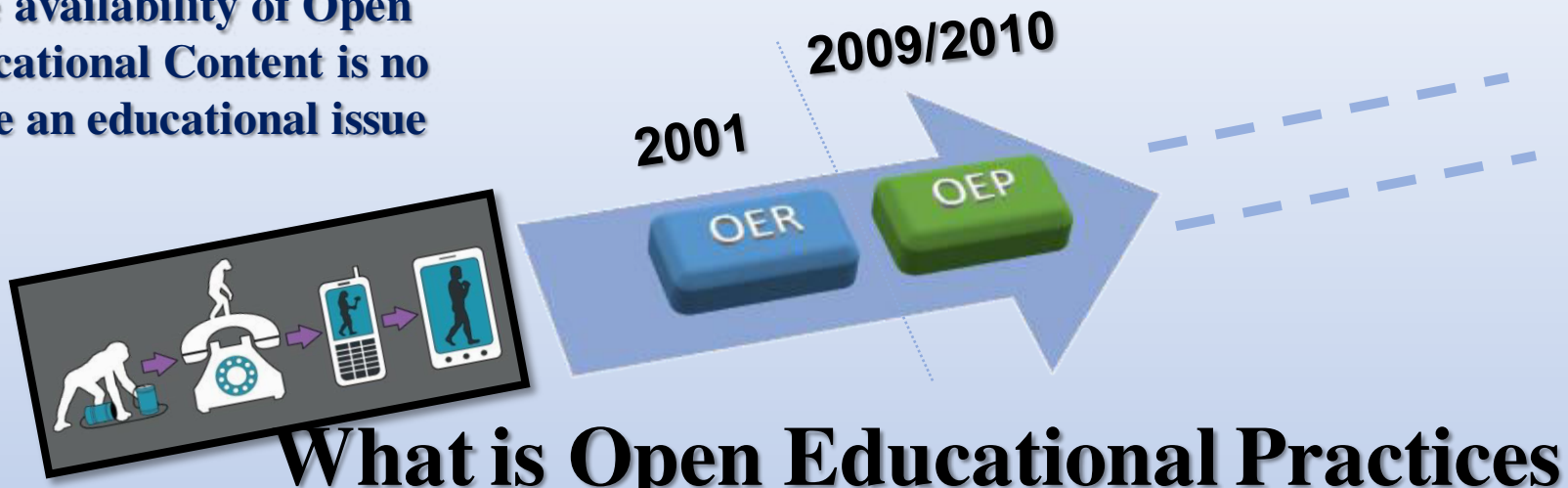
Open Content Resources is no more an issue

Stage 2 OEP

Open Educational Practices

Evolution of OER

The availability of Open Educational Content is no more an educational issue



What is Open Educational Practices (OEP)

"OEP are defined as practices which support the (re)use and production of OER through institutional policies, promote innovative pedagogical models, and respect and empower learners as co-producers on their lifelong learning path". OEP address the whole OER governance community: policymakers, managers/ administrators of organizations, educational professionals and learners."

CC BY SA

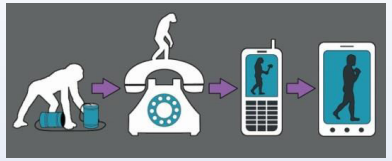
OER Transformation to OEP

Open educational practices are defined as, for example, “a set of activities around instructional design and implementation of events and processes intended to support learning. They also include the creation, use and repurposing of Open Educational Resources (OER) and their adaptation to the contextual setting

"Open pedagogy makes use of this abundant, open content (such as open educational resources, videos, podcasts), but also places an emphasis on the network and the learner's connections within this

"OER-enabled pedagogy", which is defined as "the set of teaching and learning practices that are only possible or practical in the context of the 5R permissions which are characteristic of OER", emphasizing the 5R permissions enabled by the use of open licenses.

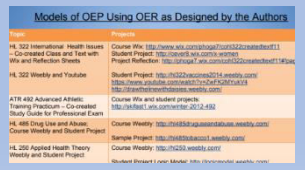
Open Educational Practices
OEP
The Transformation in Education

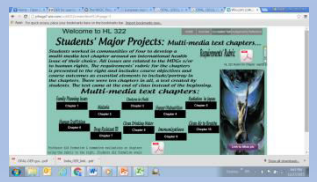


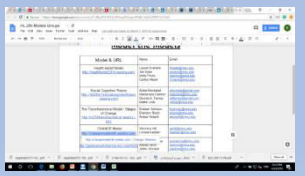
"collaborative practices that include the creation, use, and reuse of OER, as well as pedagogical practices employing participatory technologies and social networks for interaction, peer-learning, knowledge creation, and empowerment of learners" (Cronin 2017)

Educational Resources are no more an issue

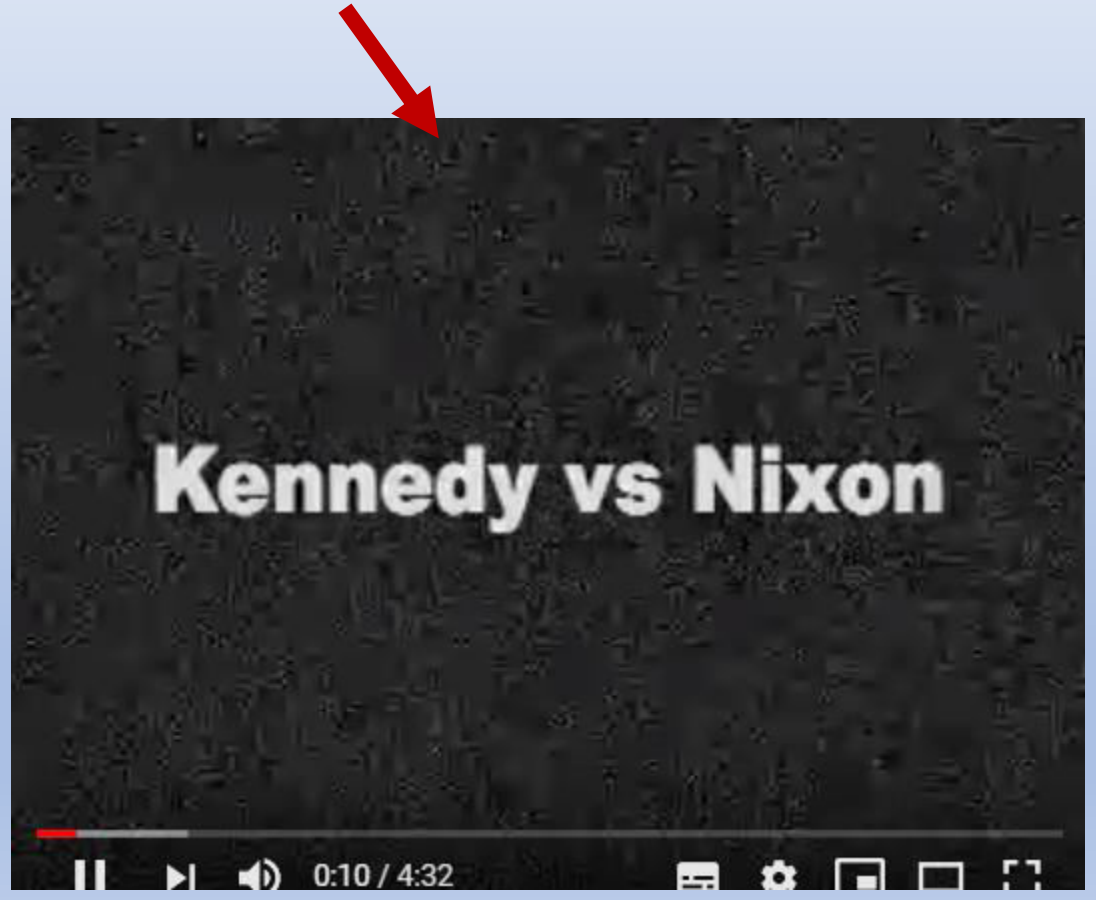
Examples

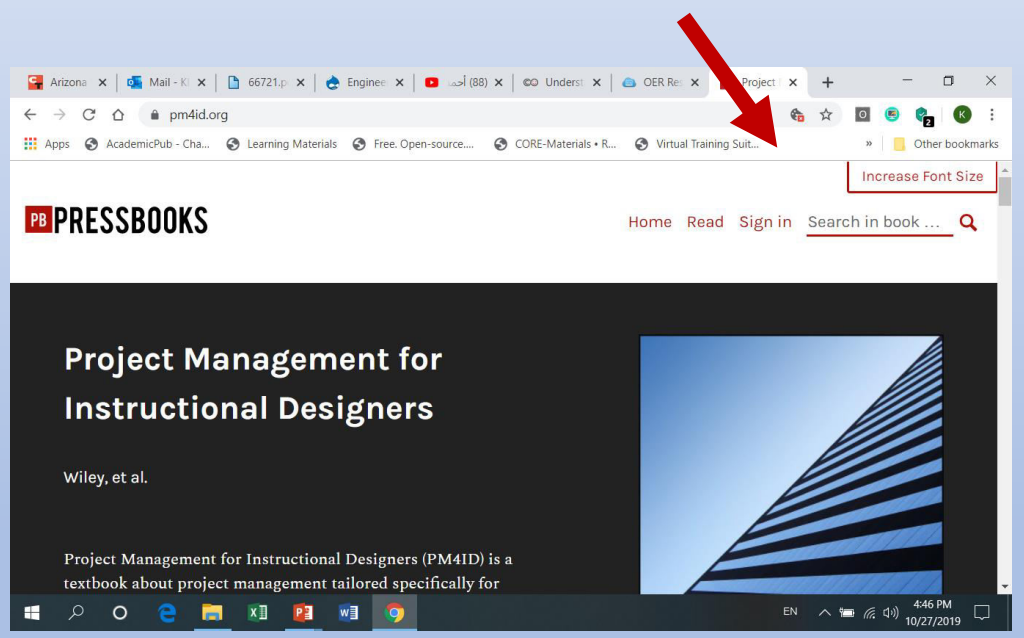






Disposable assignments





Open Textbooks

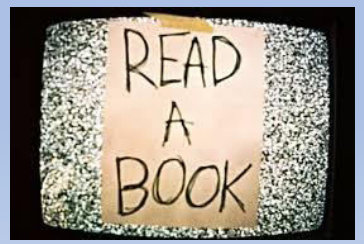
Challenges With Traditional Textbooks

- No textbook fits exactly and it's all or nothing
- High prices - Flawed market structure and Business model
- Textbooks are bundled with [too] many resources, labs etc.
- Print textbooks don't have the advantages of e Textbooks – but commercial e Textbooks are not open
- The problem with new editions
- The Digital Native Student
- Localization and culture environment
- The Lecturer's students notes practices

Open Textbook Definition

An open textbook is a textbook licensed under an open copyright license, and made available online to be freely used by students, teachers and members of the public. Many open textbooks are distributed in either print, e-book, or audio formats that may be downloaded or purchased at little or no cost

Static



1

Open Textbooks

5

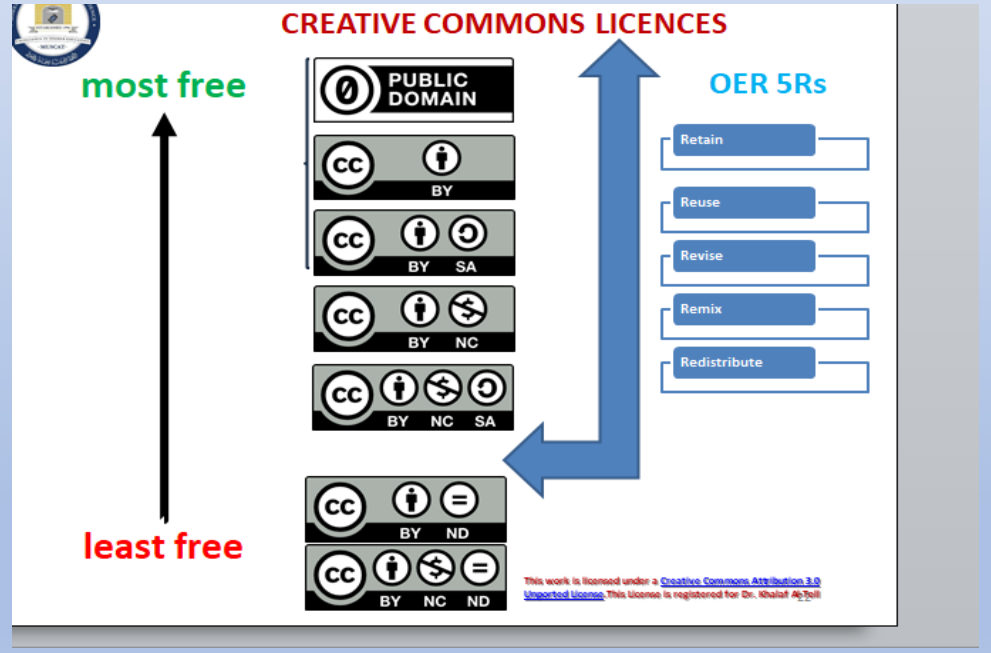
Dynamic
Interactive

What is an open textbook ?

Open Textbook = Textbook + Creative Common Licenses

Open licenses legally grant the right to:

- **Make copies and change formats**
- **Distribute copies**
- **Create customized versions**



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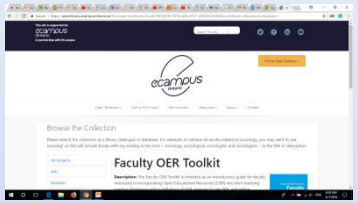
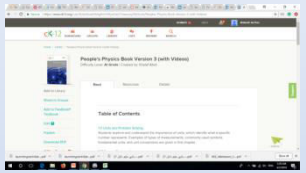
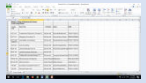
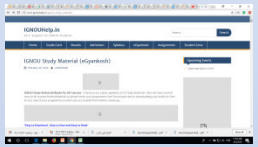
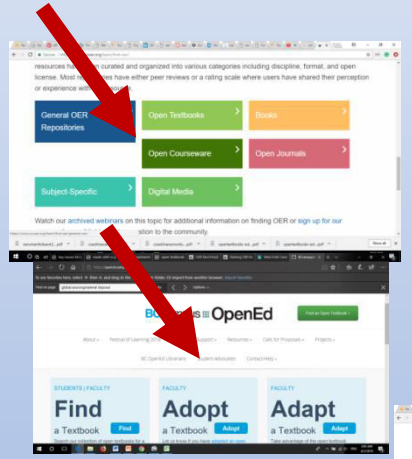
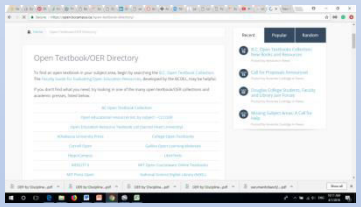
Selected Examples
Open Textbooks

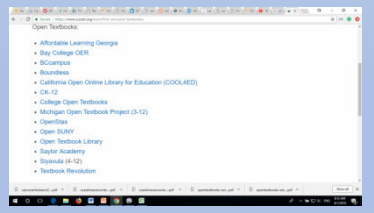


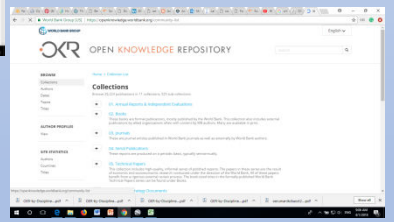


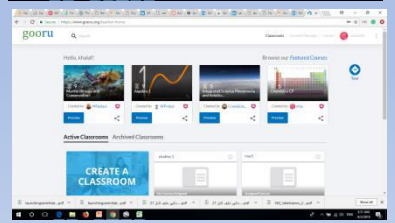


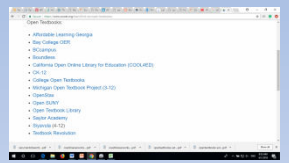



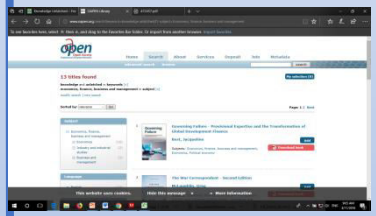
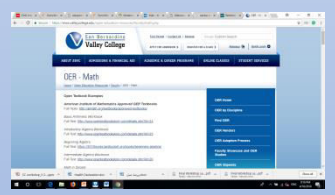


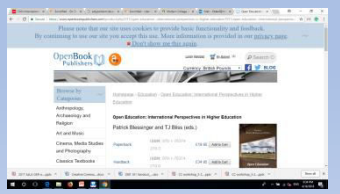




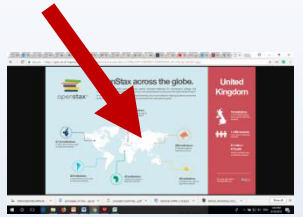




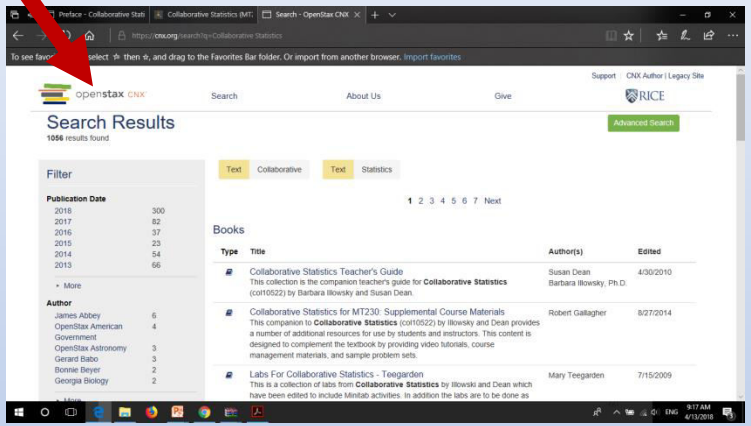


Example: OpenStax

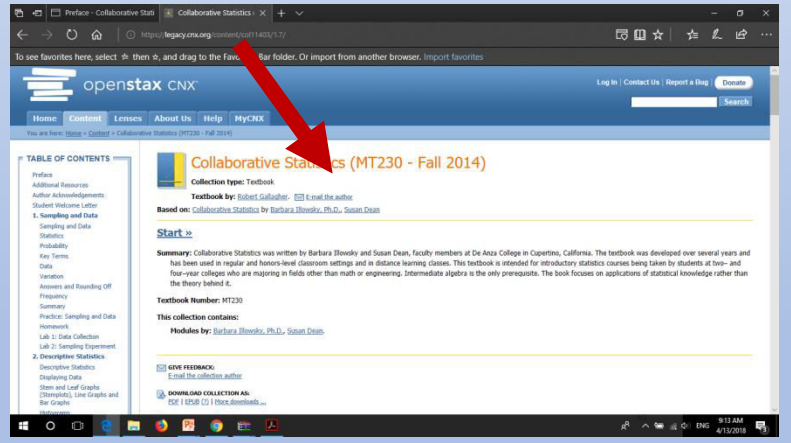


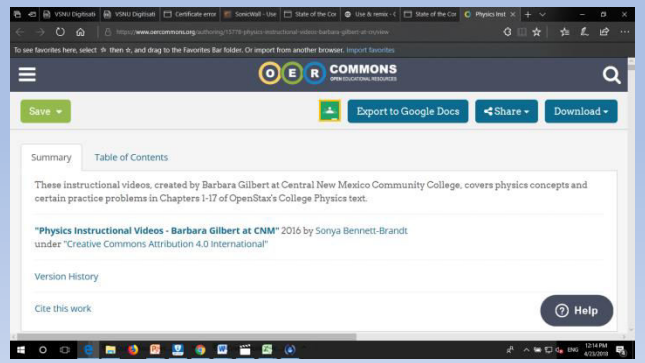
Statistics

Support



Reuse/Modify





Opencourseware

Opencourseware(OCW) Definition

What is Open Courseware?

An Open Course Ware (OCW) is a free and open digital publication of high quality UJ and university-level educational materials. These materials are organized as courses, and often include course planning materials and evaluation tools as well as thematic content.

Open Course Ware are free and openly licensed, accessible to anyone, anytime via the internet.

Open Courseware

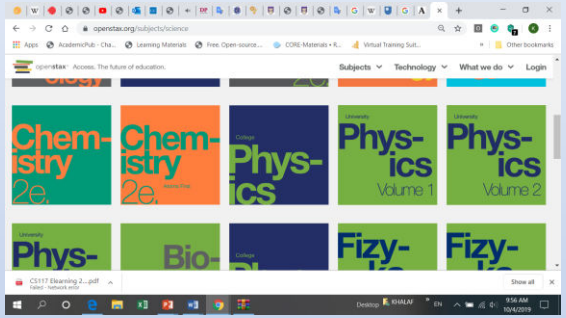
Selected Examples

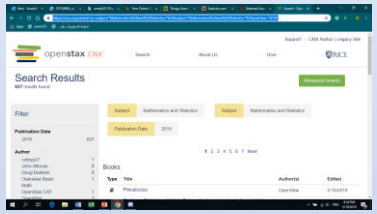
Yarmouk University OER/OEP Center

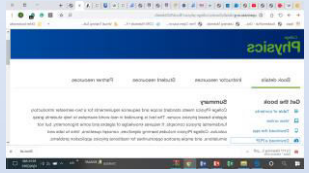
1- Move from the present " Commercial Textbooks" to "Open Textbooks".

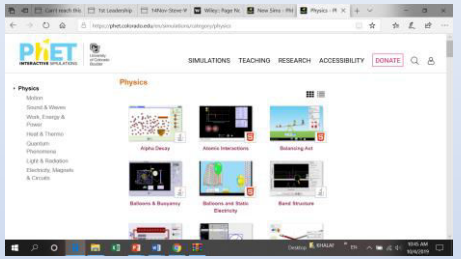
Open Textbooks

Support







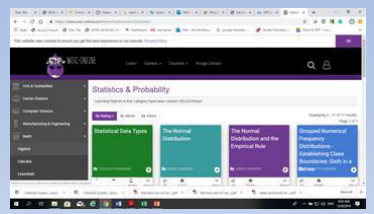


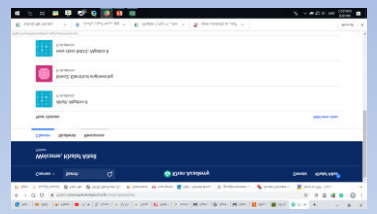
Task 2 & 3

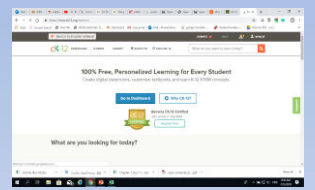
2- Move from "Textbook based delivery" to "OER/Activities based Delivery".

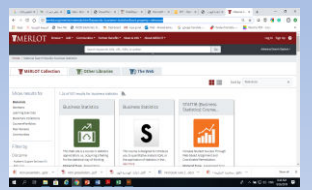
OER Reading Materials
OER-based video/audio
OER-Simulation

3- Move to technology-enhanced student Centered- Learning.









BREAK