Hello

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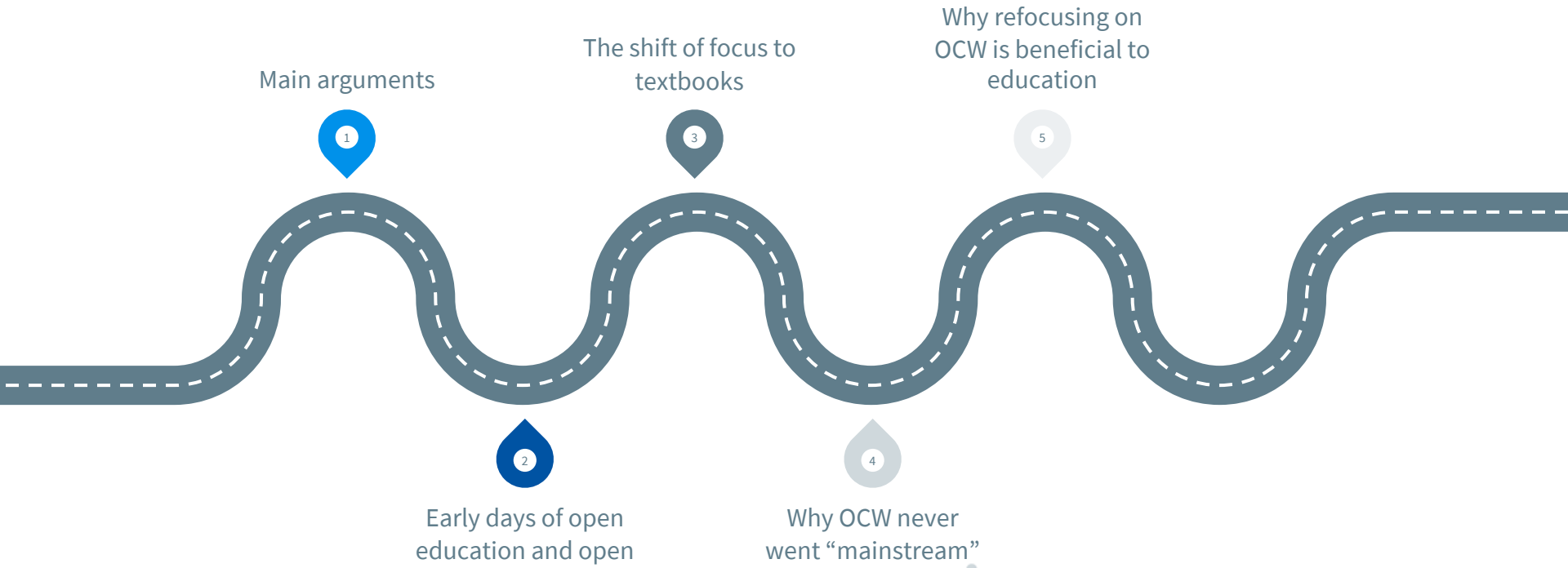
What Happened to OpenCourseWare?

Ten years of supporting open ed

Source CC image by Robin Higgins from Pixabay

What I’m going to talk about



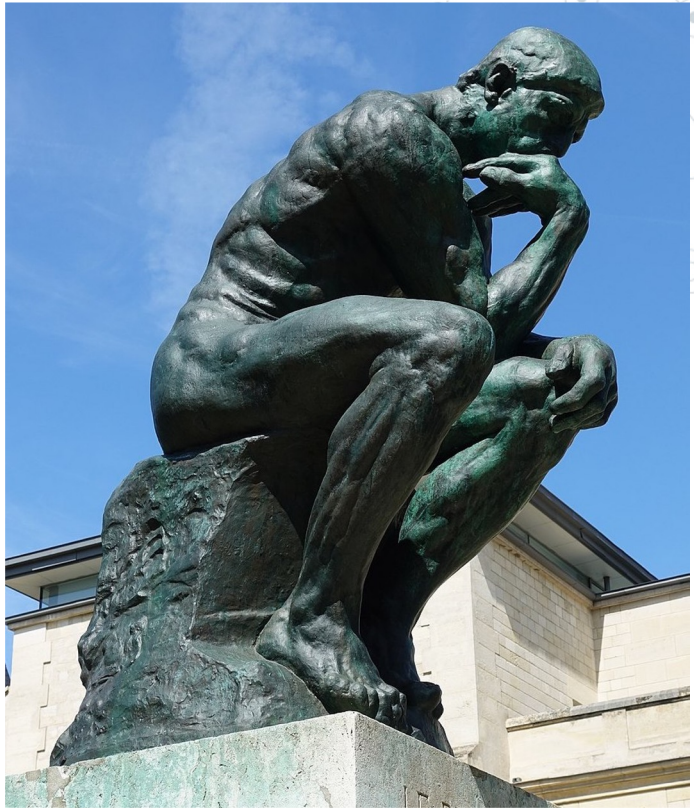
I’ve been pondering this for a while…

Argument in a nutshell

- Open ed arguably started with OCW
- OCW has been eclipsed by the focus on other elements of open ed

Why?

- Heavy textbook focus
- Challenges around ‘going public’ with a course
- Lack of an open source platform



Source: Wikimedia Commons

Early days of open ed

Source: CC image by Herman on Pixabay

"OpenCourseWare combines two things: the traditional **openness and outreach and democratizing influence of American education** and the ability of the Web to make vast amounts of information instantly available."

"OpenCourseWare is firmly at the heart of MIT's educational mission: **MIT faculty have a deeply ingrained sense of service and mission** -- they like to work on big problems and frankly, they like to influence the world. There is an incredible idealism in this faculty."

MIT News

ON CAMPUS AND AROUND THE WORLD

SUBSCRIBE

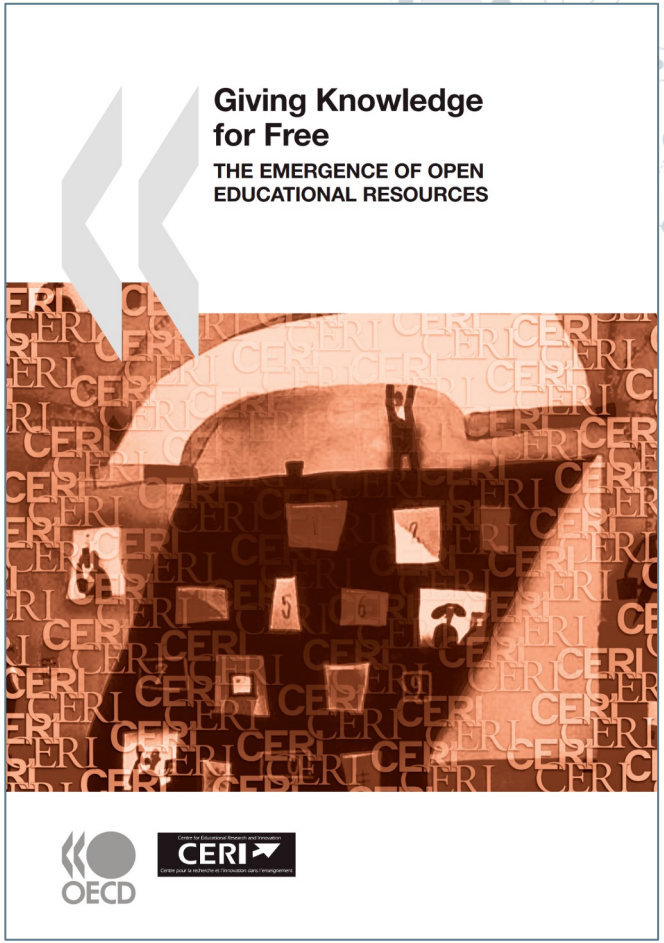
MIT to make nearly all course materials available free on the World Wide Web

April 4, 2001

Source: OECD. (2007). MIT News, April 4, 2001

Reasons to support OER

- **Expanding learning to more people, promoting lifelong learning**, and “bridging the gap between non-formal, informal and formal learning” (p. 11)
- Altruistic reasons: the idea that **sharing knowledge is consistent with educational institutions’ missions** - that publicly funded bodies should “leverage taxpayers’ money by allowing free sharing and reuse of resources”, and that “quality can be improved and the cost of content development reduces by sharing and reusing” (p. 11)
- Good for the **university’s reputation**, internal improvements to learning, and others



Source: OECD. (2007). *Giving knowledge for free: The emergence of open educational resources.*

The shift to textbooks

Source: CC image by Herman on Pixabay

A few stats on Canadian OER (i)

BC Campus

- Approx. **363 open textbooks**
- **18 “course packs”** (OCW)

Open Education Alberta

- **45 PressBooks**

OpenEd Manitoba

- Collaboration with BC Campus
- **13 PressBooks**

Source: CC image by Lukas on Pexels

A few stats on Canadian OER (ii)

eCampus Ontario (‘Open Library’)

- **458 textbooks** listed - approx 900 listed under their PressBooks network
- **156 open courses** with downloadable materials

Atlantic OER

- **25 textbooks** in their PressBooks network

Source: CC image by Lukas on Pexels

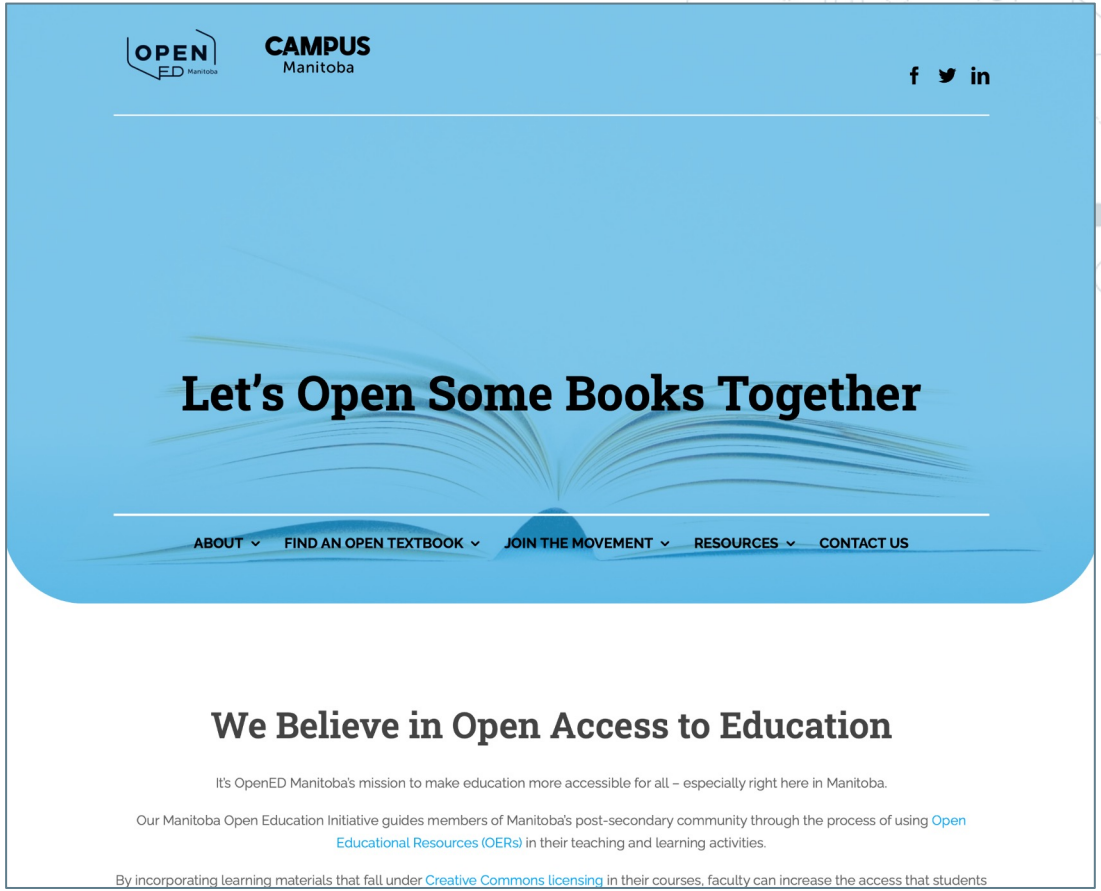
Textbook-centric language

“Find an open textbook”

“Adopt and open textbooks”

“Review an open textbook”

“Browse collection of open textbooks”



Source: OpenEd Manitoba

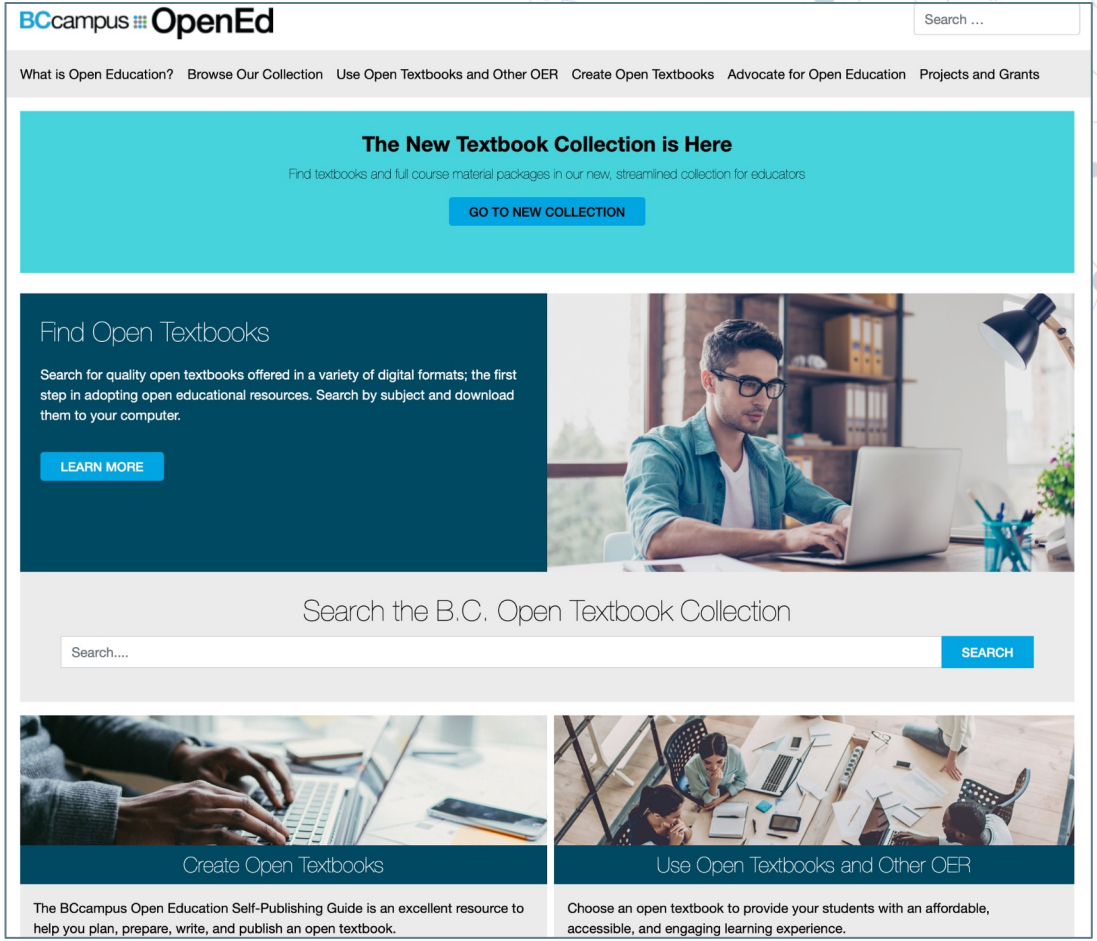
Textbook-centric language

“New textbook collection”

“Find open textbooks”

“Search the B.C. Open Textbook Collection”

“Create Open Textbooks”



Source: [BC Campus OpenEd]

Easier to measure the impact of textbooks

Lots of advocacy from students to ease post secondary costs.

Easier to measure student student savings.

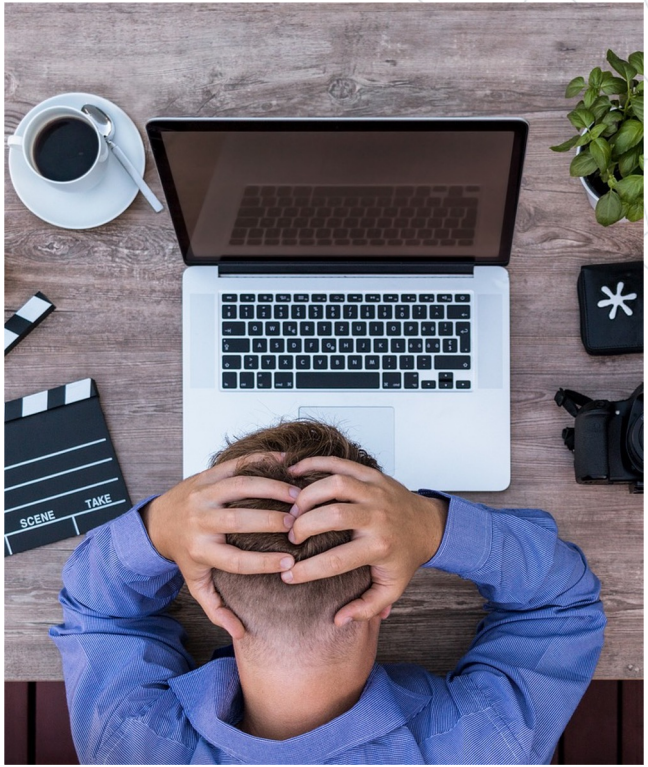
- BC Campus: $34 million since 2012
- OpenEd Manitoba: $3.5 million
- eCampus Ontario: $12 million since 2017

Open Oregon: $14 million in savings, $12 for every $1 invested.

OCW has taken a back seat to the other ‘opens’

Going public is hard

- **Courses have a highly personal element** - representing years of scholarship
- Understanding OCW values requires a **“leap of faith”** (Panto & Comas-Quinn, 2013)
- **Administrative support** and institutional credit matters (Wei, H.-C., & Chou, C., 2021)
- The idea of openness is not well understood and is a **charged term** (Knox, 2013; Baker III, 2017)
- Achieving openness in OCW requires a **willingness and effort** (McNally & Christiansen, 2019)



Source: CC image by Lukas Bieri from Pixabay

PEER-REVIEWED JOURNAL ON THE INTERNET

Fifty shades of open

by Jeffrey Pomerantz and Robin Peek

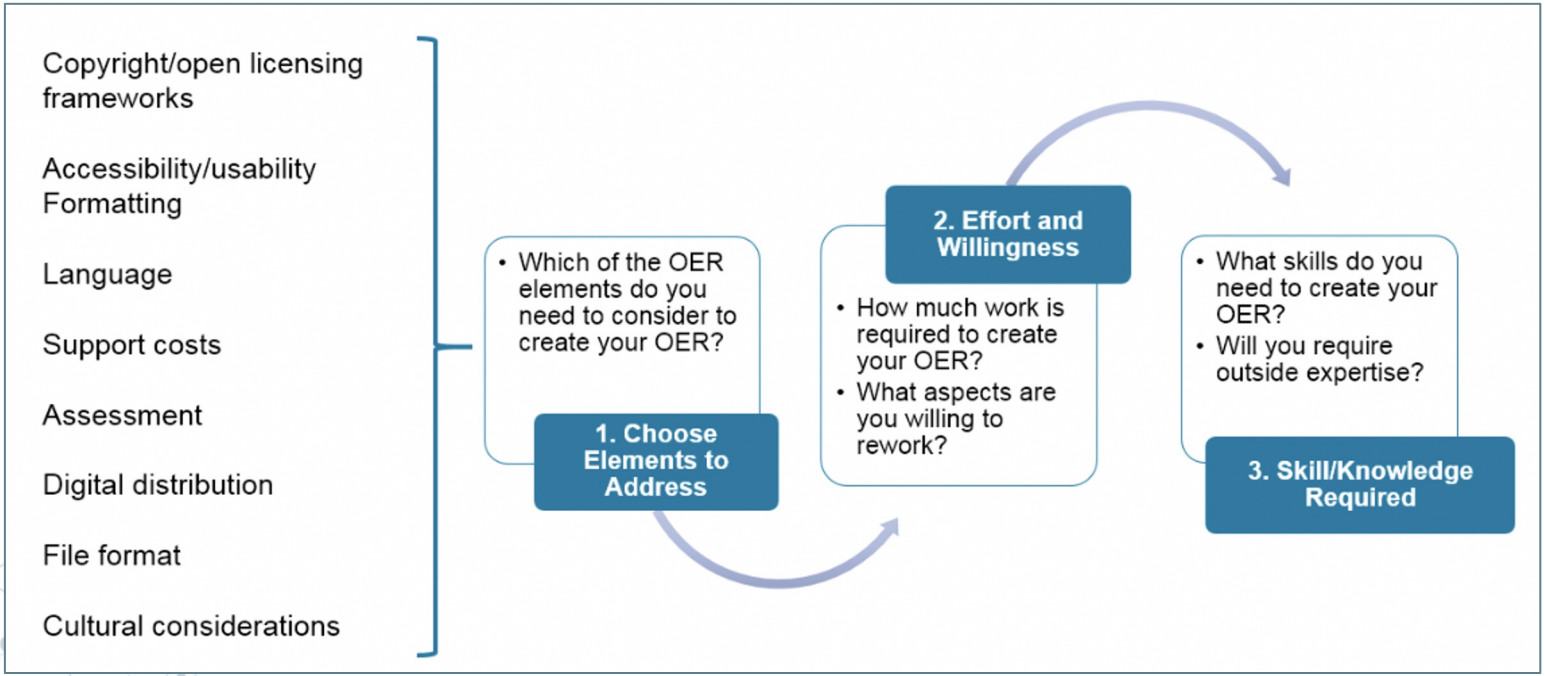
Abstract

Open source. Open access. Open society. Open knowledge. Open government. Even open food. The word "open" has been applied to a wide variety of words to create new terms, some of which make sense, and some not so much. This essay disambiguates the many meanings of the word "open" as it is used in a wide range of contexts.

Source: Pomerantz and Peek, 2016

Open enough? Eight factors to consider when transitioning from closed to open resources and courses: A conceptual framework

by Michael B. McNally and Erik G. Christiansen



Source: McNally & Christiansen, 2019

Examining the technological and pedagogical elements of select open courseware by Erik G. Christiansen and Michael B. McNally

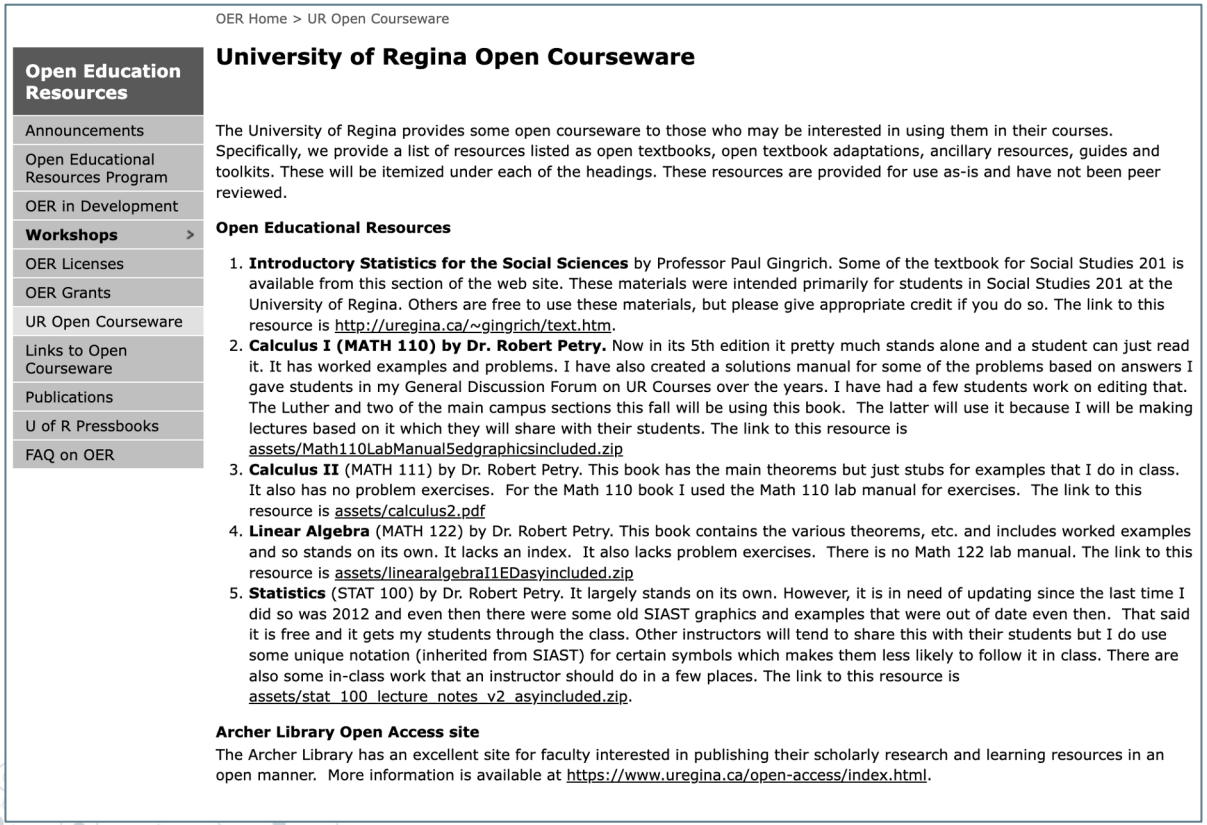
	Copyright/OL	Accessibility/Usability	Language	Support Costs	Assessment	Digital Distribution	File Format	Cultural Considerations
MIT OCW								
Public Transportation Systems	Mixed	Most Open	Closed	Closed	Mixed	Most Open	Closed	Mixed
Equity and Inclusion:	Mixed	Most Open	Closed	Closed	Mixed	Most Open	Closed	Closed
Introduction to Art History	Mixed	Most Open	Closed	Closed	Mixed	Most Open	Closed	Closed
Innovation Systems	Mixed	Most Open	Closed	Closed	Mixed	Most Open	Closed	Closed
Biological Chemistry II	Mixed	Most Open	Closed	Closed	Most Open	Most Open	Closed	Most Open
TU Delft OCW								
Public Hygiene and Epidemiology	Mixed	Closed	Mixed	Most Open	Closed	Most Open	Closed	Mixed
Hydrology of Catchments, Rivers and Deltas	Mixed	Closed	Closed	Mixed	Mixed	Most Open	Closed	Most Open
System Validation	Mixed	Closed	Closed	Closed	Most Open	Most Open	Closed	Most Open
Structured Electronic Design	Mixed	Closed	Closed	Closed	Mixed	Most Open	Closed	Most Open
Drinking Water Treatment 2	Mixed	Closed	Closed	Closed	Most Open	Most Open	Closed	Most Open

	THREE DIMENSIONS OF OPENNESS		
FACTOR	**Closed**	**Mixed**	**Most Open**
TECHNICAL FACTORS			
Copyright & Licensing Definition: The copyright status of the course materials applied by the author or institution.	The course documents protected copyright (all rights reserved); no open licence.	The course documents have less open Creative Commons (CC) licence terms (e.g. NonCommercial or Share-Alike).	The course documents have a more open CC Attribution (CC-BY) License/ Public Domain.
File Format Definition: Document file format of course content.	The course includes print resources, document images, PDF, or other non-editable formats that cannot be altered without expensive software or by re-typing.	The course includes an editable proprietary file format that could be adapted using open software (e.g. .docx file edited using LibreOffice)	The course includes fully open formats (e.g. HTML or .odf) that could be edited using either open source or proprietary software.
Discoverability Definition: Discoverability of course through an existing open education repository/search engine.	The course is closed/available only to institutional users (e.g. only accessible via a learning management system).	The course is publicly available but has low discoverability (e.g. available through a single institutional repository only).	The course is publicly available and has high discoverability (e.g. available through YouTube, Merlot, BC Campus).
PEDAGOGICAL FACTORS			
Language Definition: Language(s) of course content.	The course content is presented in one language.	The course content is bi-lingual or includes guides/steps for translation.	The course content is multi-lingual or includes guides/steps for translation and is bilingual.
Material Costs Definition: Costs of supporting content including textbooks, books, scholarly articles, or web resources.	The course has paid resources that must be purchased (e.g. commercially available textbooks).	The course has licensed library resources (e.g. subscription journals available to institutional users).	The course has openly licensed resources (e.g. open access scholarly articles or books) or materials that are in the public domain.
Assessment Definition: Availability of and approach to mechanisms used to assess learners' understanding/ knowledge of course content.	The course has no assessments made publicly available, using an open licensing framework and are not shared through an OER repository.	The course assessments are publicly available using an open licence; learners can self-assess, but they are not meaningful (i.e. questions and assignment descriptions only).	The course has assessments made publicly available using an open license; meaningful self-assessment is possible (i.e. questions and answers provided).
Accessibility Definition: Evidence that the course has adhered to commonly accepted accessibility web standards in course design and content.	The course does not adhere to an accepted accessibility standard.	The course adheres to some accepted accessibility standards (e.g. closed captioning).	The course adheres fully to an accepted accessibility standard (e.g. compliance w/ US HHS or W3C)
Other considerations (not measurable using the three dimensions of openness)	**Cultural considerations** ☐ Are there considerations for outside/culturally diverse users? ☐ Are the materials/content culturally specific? **Usability** ☐ Is the interface easy to navigate for users? ☐ Is the design responsive (for mobile devices)? **Harvestability** ☐ Are the full set of course materials easily downloaded (preferably as a single .zip file)?		

Source: Christiansen & McNally, 2022

Image by Ahmad Ardity from Pixabay

Presentation matters



OER Home > UR Open Courseware

Open Education Resources

- Announcements
- Open Educational Resources Program
- OER in Development
- **Workshops** >
- OER Licenses
- OER Grants
- UR Open Courseware
- Links to Open Courseware
- Publications
- U of R Pressbooks
- FAQ on OER

University of Regina Open Courseware

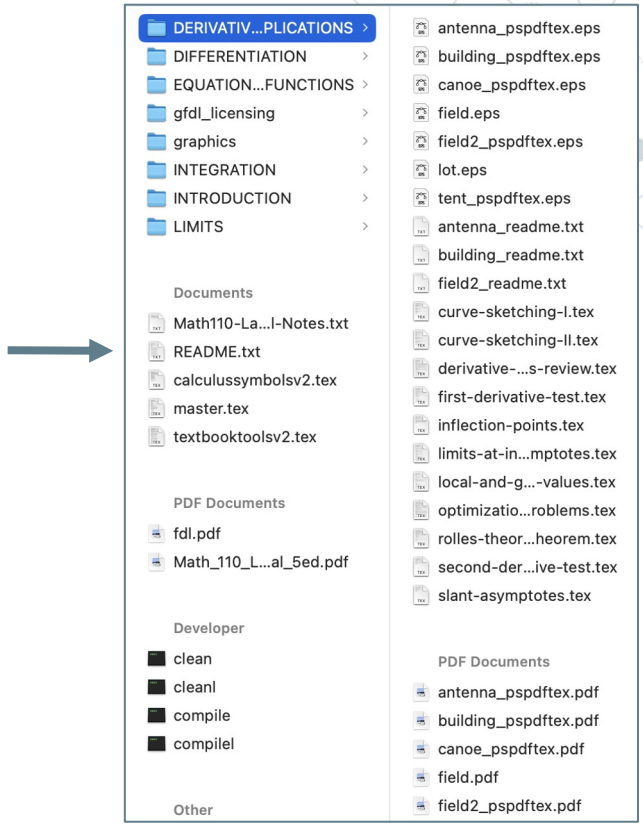
The University of Regina provides some open courseware to those who may be interested in using them in their courses. Specifically, we provide a list of resources listed as open textbooks, open textbook adaptations, ancillary resources, guides and toolkits. These will be itemized under each of the headings. These resources are provided for use as-is and have not been peer reviewed.

Open Educational Resources

1. **Introductory Statistics for the Social Sciences** by Professor Paul Gingrich. Some of the textbook for Social Studies 201 is available from this section of the web site. These materials were intended primarily for students in Social Studies 201 at the University of Regina. Others are free to use these materials, but please give appropriate credit if you do so. The link to this resource is http://uregina.ca/~gingrich/text.htm.
2. **Calculus I (MATH 110) by Dr. Robert Petry.** Now in its 5th edition it pretty much stands alone and a student can just read it. It has worked examples and problems. I have also created a solutions manual for some of the problems based on answers I gave students in my General Discussion Forum on UR Courses over the years. I have had a few students work on editing that. The Luther and two of the main campus sections this fall will be using this book. The latter will use it because I will be making lectures based on it which they will share with their students. The link to this resource is assets/Math110LabManual5edgraphicsincluded.zip
3. **Calculus II** (MATH 111) by Dr. Robert Petry. This book has the main theorems but just stubs for examples that I do in class. It also has no problem exercises. For the Math 110 book I used the Math 110 lab manual for exercises. The link to this resource is assets/calculus2.pdf
4. **Linear Algebra** (MATH 122) by Dr. Robert Petry. This book contains the various theorems, etc. and includes worked examples and so stands on its own. It lacks an index. It also lacks problem exercises. There is no Math 122 lab manual. The link to this resource is assets/linearalgebraI1EDasyincluded.zip
5. **Statistics** (STAT 100) by Dr. Robert Petry. It largely stands on its own. However, it is in need of updating since the last time I did so was 2012 and even then there were some old SIAST graphics and examples that were out of date even then. That said it is free and it gets my students through the class. Other instructors will tend to share this with their students but I do use some unique notation (inherited from SIAST) for certain symbols which makes them less likely to follow it in class. There are also some in-class work that an instructor should do in a few places. The link to this resource is assets/stat_100_lecture_notes_v2_asyincluded.zip.

Archer Library Open Access site

The Archer Library has an excellent site for faculty interested in publishing their scholarly research and learning resources in an open manner. More information is available at https://www.uregina.ca/open-access/index.html.



Source: University of Regina

Presentation matters

18.02SC | Fall 2010 | Undergraduate

Multivariable Calculus

Syllabus

1. Vectors and Matrices
2. Partial Derivatives
3. Double Integrals and Line Integrals in the Plane
4. Triple Integrals and Surface Integrals in 3-Space

Final Exam

Part A: Vectors, Determinants and Planes

Session 1: Vectors

« Previous | Next »

Overview

In this session you will:

- Read course notes
- Review an example
- Watch a lecture video clip and read board notes
- Review three additional examples
- Watch a recitation video
- Do problems and use solutions to check your work

Related Readings

Introduction to Vectors (PDF)

Examples

Vector Addition (PDF)

Lecture Video

Video Excerpts

Clip: Vectors

The following images show the chalkboard contents from these video excerpts. Click each image to enlarge.

Course Info

INSTRUCTOR

Prof. Denis Auroux

DEPARTMENTS

Mathematics

AS TAUGHT IN

Fall 2010

LEVEL

Undergraduate

TOPICS

Mathematics

Calculus

Differential Equations

Linear Algebra

LEARNING RESOURCE TYPES

Examples

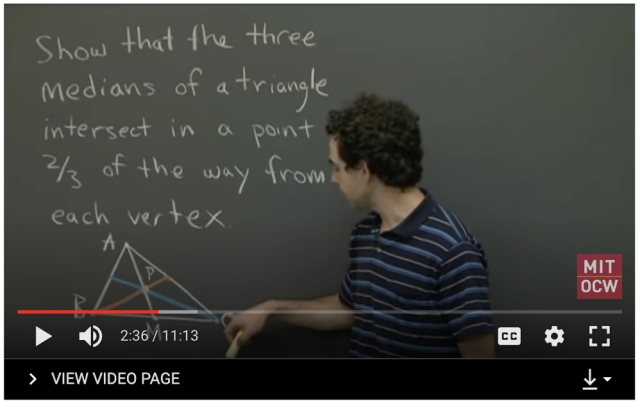
Vector Lengths (PDF)

Force is a Vector (PDF)

Proofs Using Vectors (PDF)

Recitation Video

Coordinate Free Proofs: Centroid of a Triangle



Problems and Solutions

Problems: Vectors (PDF)

Solutions (PDF)

« Previous | Next »

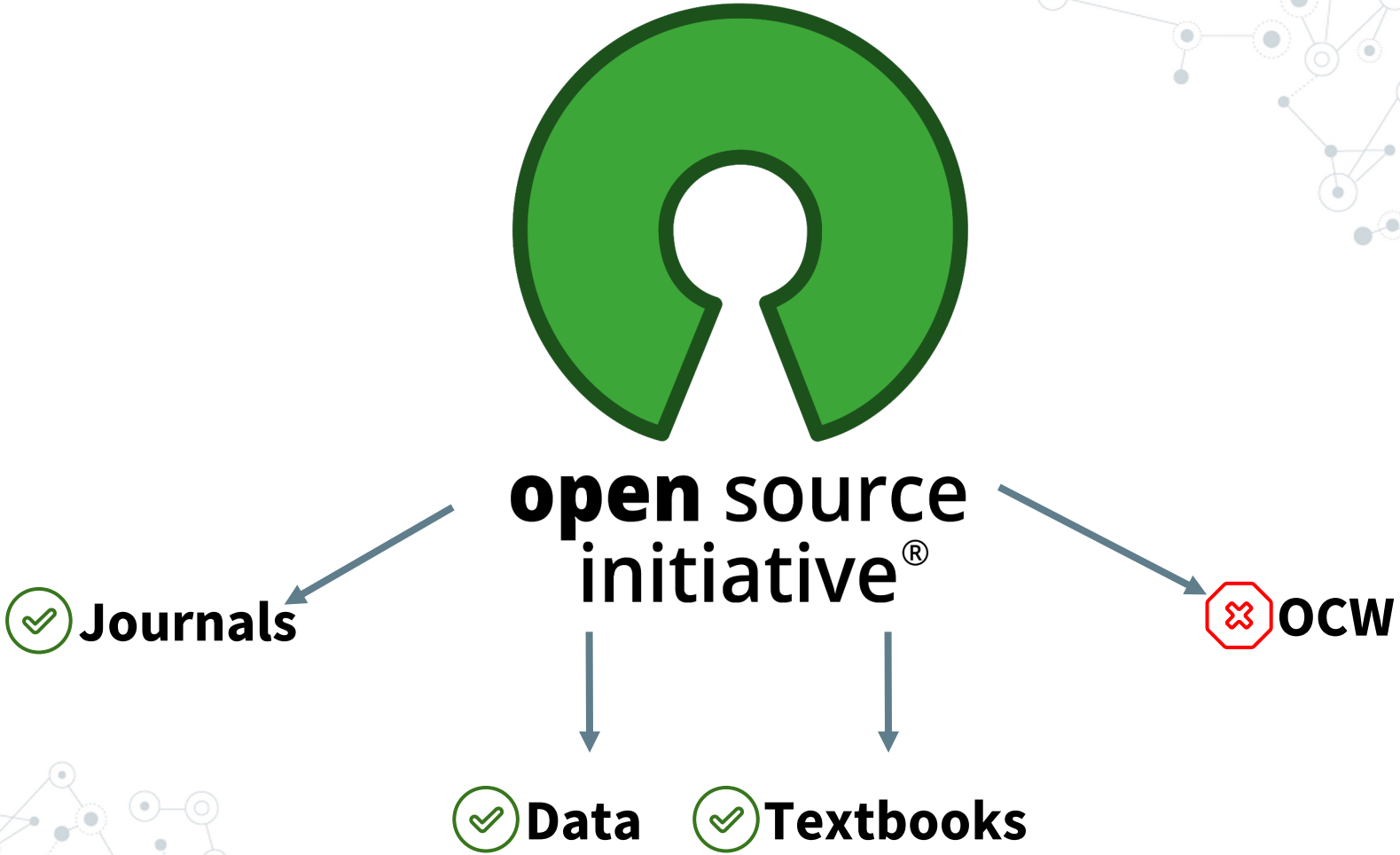
Source: Auroux, D. (Fall 2010). Multivariable calculus. *MIT OpenCourseWare*

Situates OER alongside open source software and open access, both of which are tied to technological developments.

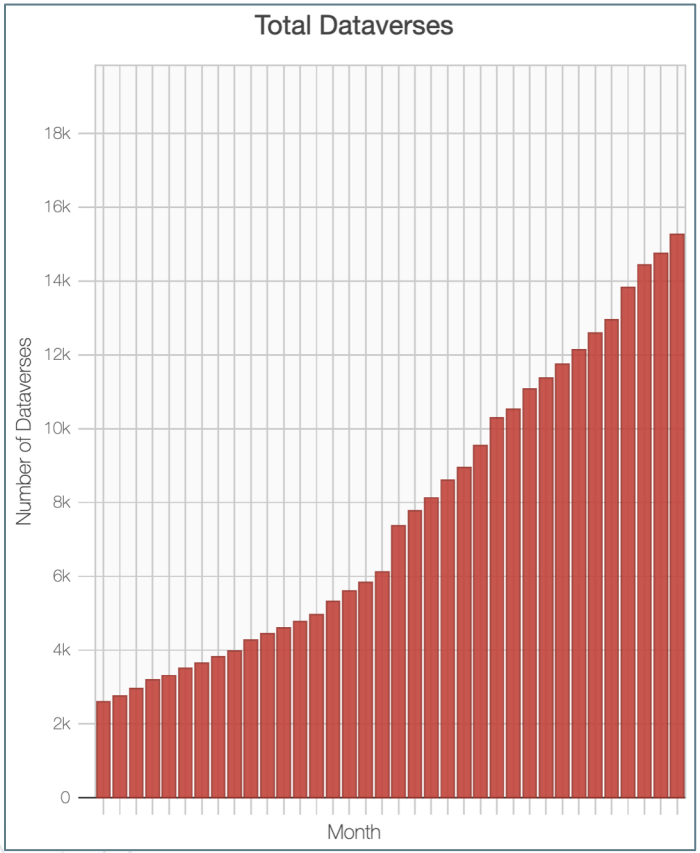
Reasons why people share their content

- “...include improved, less costly and more **user-friendly information technology infrastructure (such as broadband), hardware and software”** (p. 11).

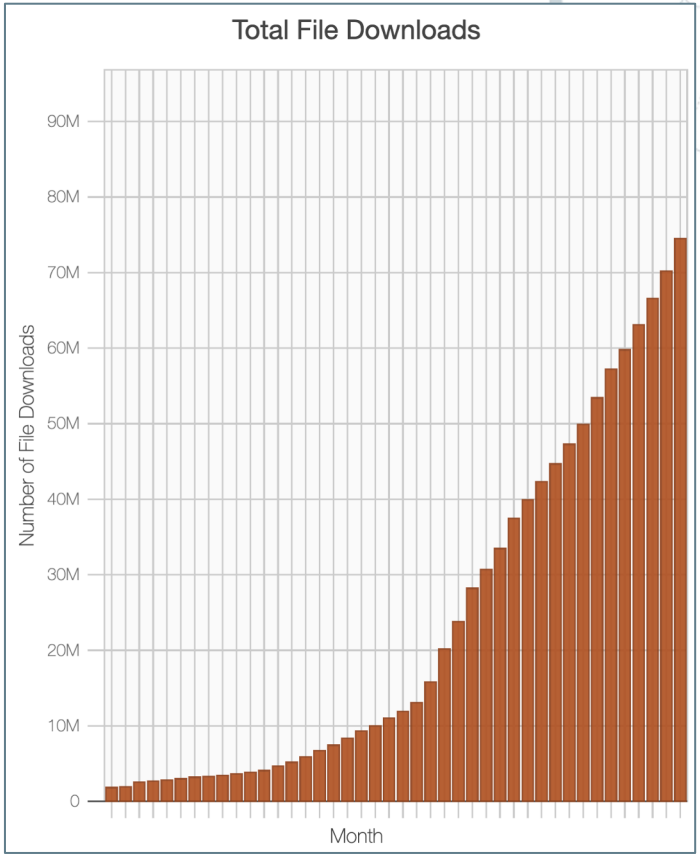
Source: OECD. (2007). *Giving knowledge for free: The emergence of open educational resources.*


open source initiative®
Journals
OCW
Data
Textbooks

June 2017 - April 2023



June 2016 - April 2023



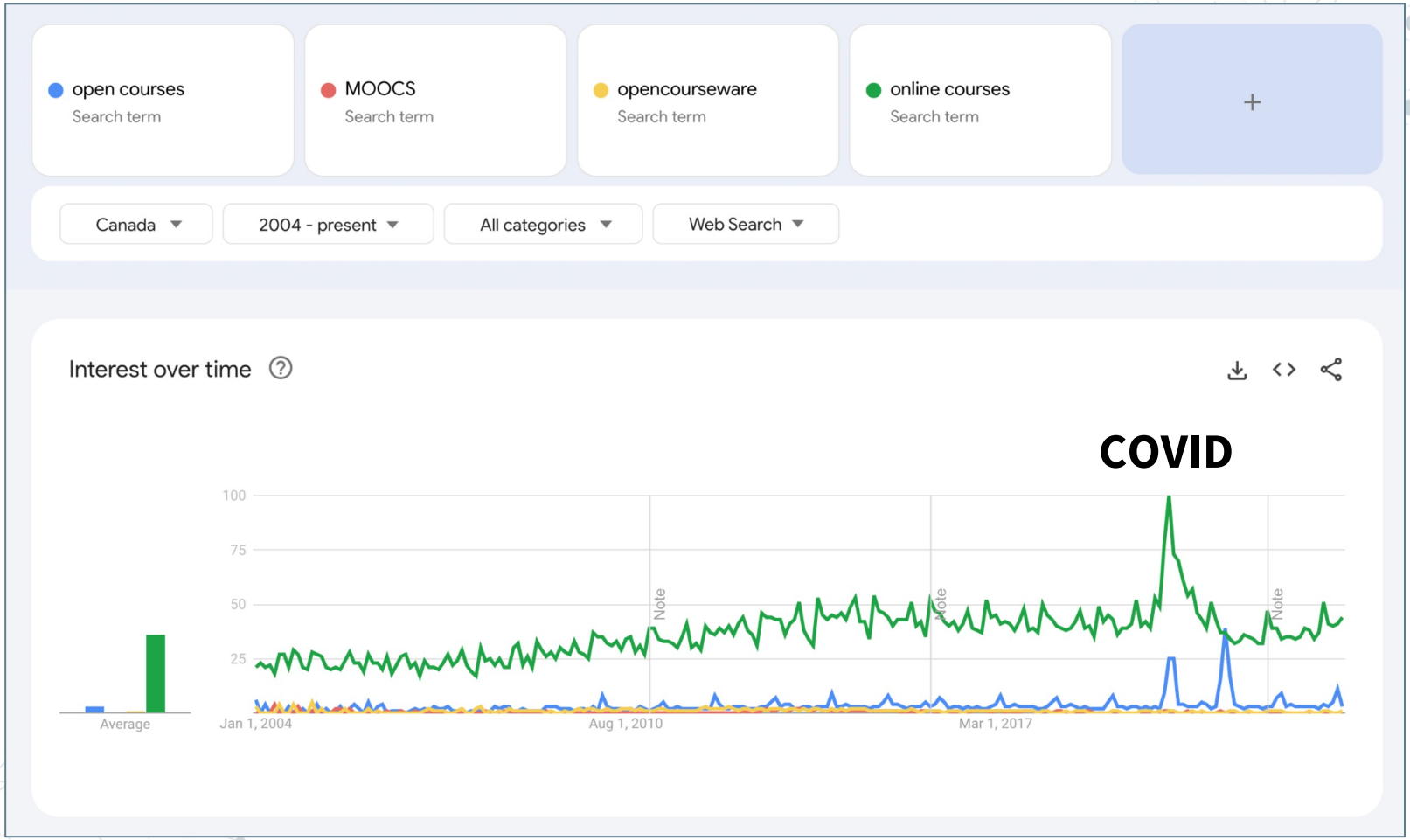
Source: Dataverse Metrics, Accessed May 18, 2023

Pandita & Singh, 2022

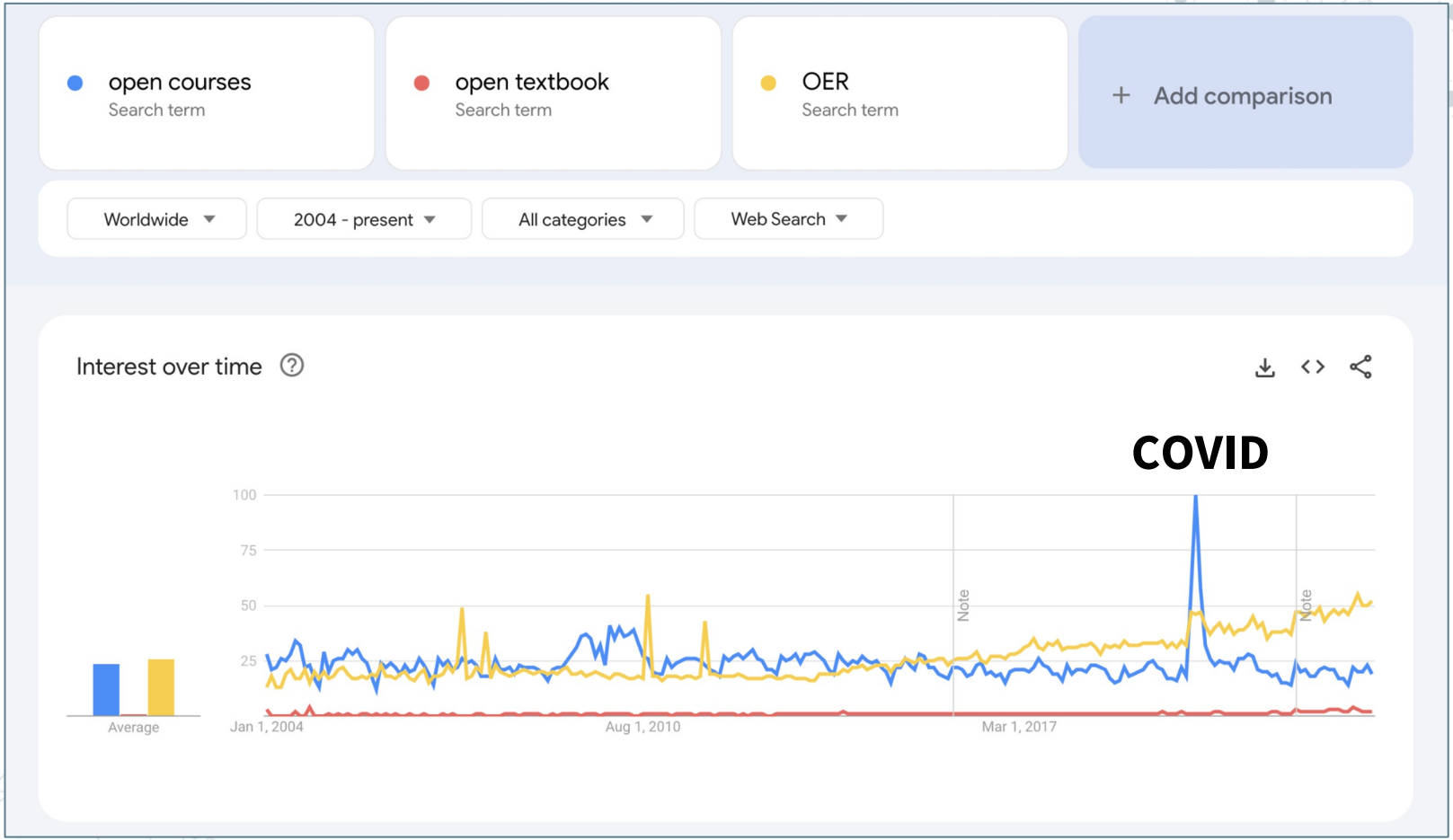
- Examined growth in OA journal from 2002 - 2021
- In 2002 there were 22 journals in the DOAJ. 16,589 by 2021
- Average of 829.45 journals indexed each year

Source: DOAJ, Accessed May 18, 2023

Value of refocusing on OCW



Source: Google search trends

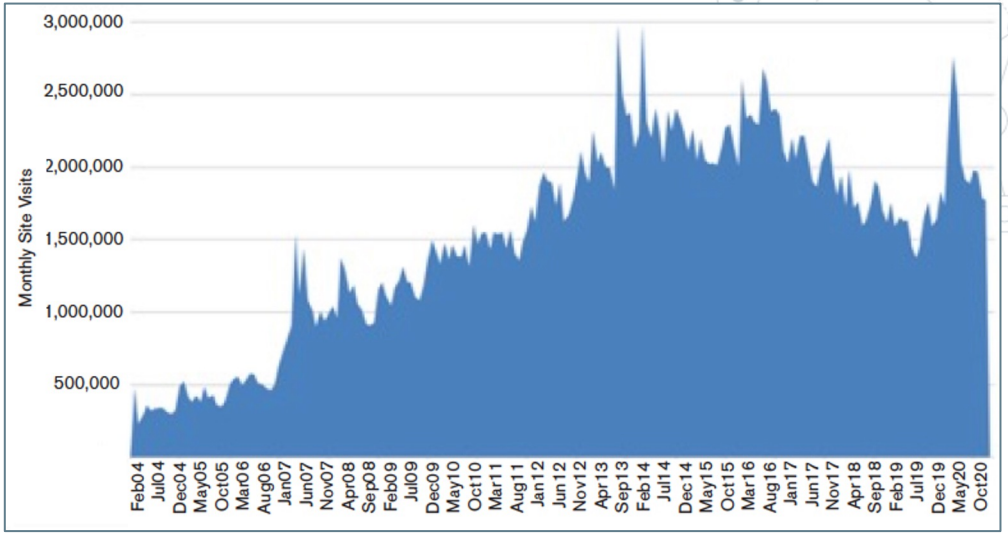


Source: Google search trends

In the early days of the pandemic, MIT OCW has **2.2 million visits a month** - up 75% from 2019.

- Post-pandemic there's still an average **15% increase in usage**
- MIT OCW gets approx **22 million visits** a year
- **4.5 million** YouTube subscribers.

"...**massive shift to remote and hybrid learning** over the past year has brought into sharp relief both the **opportunities of online education and the disparities of access**, technology, and equity for learners everywhere."



Sources: MIT Faculty Newsletter, May/June, 2021; The next generation of MIT OCW, YouTube, June 2022\

Long history of openness in education

Peter and Deimann (2013) examine the expanding and contracting nature of openness in education throughout history.

Late middle ages, “the population was becoming increasingly mobile and there was a rising demand for ‘expert knowledge’, matched by an overall growing intellectual curiosity (Riddle, 1993; Southern 1970)” (p. 9)

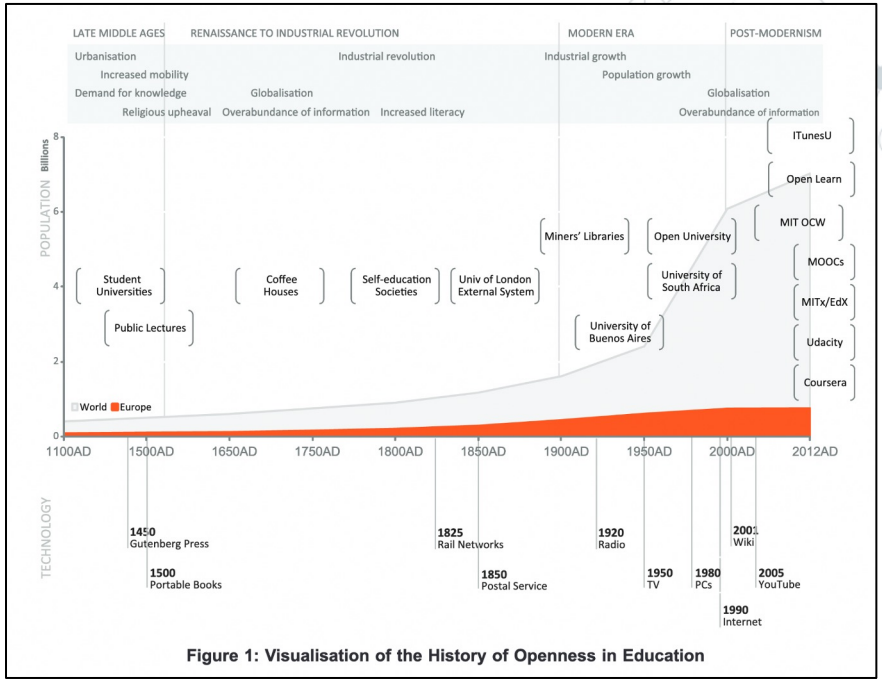


Figure 1: Visualisation of the History of Openness in Education

Source: Peter, S., & Deimann, M. (2013)

Long history of openness in education

"I think the original conception of OCW was that the majority of users would be other educators… I think it's caught everyone off guard how much hunger and curiosity there is just from the world at large for this knowledge. At times, our **estimate is over half of the traffic that comes to OCW is just from curious independent learners**…"

Source: EdTech Examined podcast, March 2, 2021

Source: CC image from Wikimedia

Thanks!

Any questions?

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