Moving Beyond the Stop - Gap Solution:

Evolving Asynchronous Online Learning Modules

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Agenda

- **1.** Context: Where are we now?
- 2. Overview: Asynchronous learning modules and library instruction
- 3. Best practices: Surveying the literature for sound approaches
- 4. Toolkit: Using open source tools to enhance elearning content

A note on context

- Important to note that this presentation was submitted in the wake of the pandemic
- You'll recall that there was much chatter about moving from emergency or 'stop-gap' solutions to permanent, process-oriented ones
- Our initial proposal emerged from that transitional phase, but we recognize that institutions have committed long-term to asynchronous learning content

Asynchronous online learning modules

Contain a wide range of learning objects, including text, images, interactive components, videos, assessment tools, etc., that students can engage with in a self-paced manner.

Why use asynchronous modules?

• Flexible:

- Course-embedded or self-directed use
- Standalone or integrated in sequence
- Active:
 - Support flipped learning classrooms
 - Include interactive components
- Customizable:
 - Can be mixed and matched to serve specialized learning contexts
- Efficient:
 - Once created, can be widely reused

However, also requires:

- Extensive time
- Technical expertise
- Costly technologies
- Maintenance

COVID-era process

Identify goals

Develop content

Create object

- Filling sudden gaps in synchronous instruction
- Transitioning to remote learning format
- Enrich student learning during stressful time

- Selecting format types
- Writing text and script
- Designing interactivity and images
- Determining sequence

- Using software to build learning object
- Documenting object metadata
- Sharing object in accessible location

OISE Library example

Pivot to online learning

Identified immediate need to transform 3-hour synchronous lesson for Master of Teaching students into series of modules.

Built modules

Constructed modules by creating text, videos, and assessment tools; Published modules as online course.



Long -term process



What makes an effective online learning tool?

- Dewald's seminal 1999 article advises:
 - Situate tool in student learning context
 - Make it interactive and collaborative
 - Use different modes of media
 - Ground in clear learning objectives
 - Provide options for additional follow-up
- Hess (2014): Designs objects to be maintainable, available, geared at users, informative, and customizable
- McLean (2014): Considerations should include planning, pedagogy, incorporating active learning, embedding communication, and testing

Universal Design for Learning (UDL)

Engagement

How instructors build affective experiences, garner motivation and interest, and cultivate hospitable classrooms.

Representation

How instructors convey information, such as explanation or instructions, through media and language.

Expression

How students demonstrate their own learning by communicating back with peers and instructors.

See: CAST, 2018. Universal Design for Learning Guidelines Version 2.2.

UDL in action: Online learning examples

Engagement

Building in explicit moments of self-regulation into learning modules, such as goal-setting and self-reflection exercises.

Representation

Illustrating an information literacy concept through video, a visual diagram, and a text transcript.

Expression

Allow students to respond in a variety of formats to demonstrate their understanding or skill.

From the literature: Pedagogical frameworks

Instructional Design Model	Overview	Case studies in practice	,	identity goals
Backwards Design	 Identify desired results Determine acceptable evidence Plan learning experiences 	Franklin et al., 2021; Diamond, 2019	2 — —	Plan content
ADDIE Model	Analysis, Design, Development, Implementation, and Evaluation	Allen, 2017; Campbell, 2014; Ezell, 2021	3	Create object
USER Instructional Design	Understand, Structure, Engage, Reflect	Dinscore, 2022	4	Assess object
Mayer's Cognitive Theory of Multimedia Learning	Highlights power of interplay between multimedia, words, and pictures	Rapchak, 2017; Scales et al., 2014	5	Revise object

From the literature: Creating objects

- Best practices and accessibility standards are often specific to format type
- Example: Video screencasts should...
 - Clearly state learning objectives
 - Be < 2 minutes in length
 - Use both visual and audio cues
 - Be linked at points-of-need (Weeks and Davis, 2017)
- Some institutions have developed localized decision trees to aid in selecting appropriate tools





From the literature: Assessing objects



From the literature: Revisions and updates

- Maintaining relevance, accuracy, and consistency of content
- Most LIS literature focuses on large-scale redesign of learning objects, not regular maintenance
- Bussman and Plovnick (2013) use the following questions to guide their revisions process:
 - Do we revise or retire the existing tutorial?
 - What is out of date in terms of design, navigation, content, and technology?
 - What is most useful in the current tutorial? What is least useful?
 - Which revisions are attainable within the scope of the project?
 - Why should students use the tutorial?



OISE Library Learning Objects Database

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Wrap-Up (Research 1)	contains one visible page: "Where to Find Us" contains one visible assessment: "Research Check-in II (2020)" contains one hidden page: "Copying Content"	Learning module	Up to date	November 22, 2022	Kaushar Mahetaji	Quercus (Learning Ma	https://q.utoi s/178191/m
Which databases contain educational research articles?	2:53 video	Tutorial Video	TBD - needs review	November 3, 2022	Kaushar Mahetaji	MyMedia OISE Library	https://play.li ca/watch/c9 c505f51c69
Which databases contain educational research articles?	2:35 video	Tutorial Video	Under review	September 23, 2020	Emily Hector	MyMedia OISE Library	https://play.li ca/watch/c03 f213747d21
Where to Search? (I HAE)	contains four visible pages: "The	Loorning modulo	TPD poods roview	November 24, 2022	Kaushar Mahetaii	Quorous (Loorning Ma	https://a.utor

But what about all the tools required to bring this plan to life?

Open Source Options

- Substantial development in open source software for eLearning development
- One of the most important considerations for an any type eLearning development is infrastructure
- Influenced by:
 - institutional values;
 - resourcing (or lack thereof);
 - support;
 - sustainability
- Directly affects what you can do in a module
- Previously, strong control by commercial entities









Open source software available that enables designers to create content that is accessible, effective, and polished.

H5P - through eCampus or Lumi Cloud

Lumi H5P desktop editor

Open eLearning editor

Desktop Editor



Lumi Cloud



H5P Studio

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Another option (particularly for HTML5 or SCORM content) is Open ELearning Editor.

Attempts to recreate the Articulate 360 UI.

Includes gamified learning, logic, assessment, rich media, iFrames, export options.





Hugo, or other alternatives, enable users to quickly create static websites that are small, sustainable, and portable.

A perfect solution for serving simple content.



Depending on resourcing, the institution's LMS is likely the most accessible and dependable vehicle to roll our elearning content.

Blackboard



Gitlab Pages or Github Pages offer free hosting and Git control of content, allowing you to host your static websites (and leave Springshare or your university website in the dust).





Building is only half the effort

- Irrespective of its quality, it's very common for elearning content to remain unused on the shelf, collecting dust
- A serious marketing effort coupled with user-friendly integrations is key to increase usage
- "In order to ensure awareness and use of e-learning materials, good communication among librarians, point-of-need marketing strategies, and persistence are all key." (Eastman, Saulnier, 2020).
- User-friendly integrations need to be front and center
 - **Ex.**

Ev

Export

Want to include this lesson in your LMS? You got it.

Feb 3, 2023

You should feel free to direct your students to this website whenever you want. Alternatively, you can import our lessons into your course in your learning management system. Currently, we only support D2L Brightspace. If you would like to import this lesson into your course, click on the Export button below. A zip file will be downloaded to your computer. You will be able to import that file into your course by following these instructions: <u>Documentation</u>.



What are some challenges you've faced in continuing to improve your online learning content?

If you'd like to share online, visit <u>www.menti.com</u> and enter code 5629 9575

Thank you! emily.hector@utoronto. ca | cmurgu@brocku.ca

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