

Product Development in the Open: From Presentation to Authentic Participation

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Dave Ormsbee, tCRIL

Braden MacDonald, OpenCraft

What's this talk about?

- How our approach to discovery differed from past approaches
- Methods for inclusive product research
- How community feedback loops shaped the project
- Challenges
- Learning opportunities
- Open questions - Help us improve!

Overview of Modular Learning Initiative

Benefits and Impact

- Positions Open edX to become a platform innovator and leader in modular content delivery - beyond the traditional “course” structure
- Enables flexible content reuse (a #1 community request) and reduces authoring time
- Fixes legacy pain points and feature parity gaps
- Lays the groundwork for more robust and creative content sharing initiatives down the road, such as an Open edX course and content repository

Overview of Modular Learning Initiative

Objectives

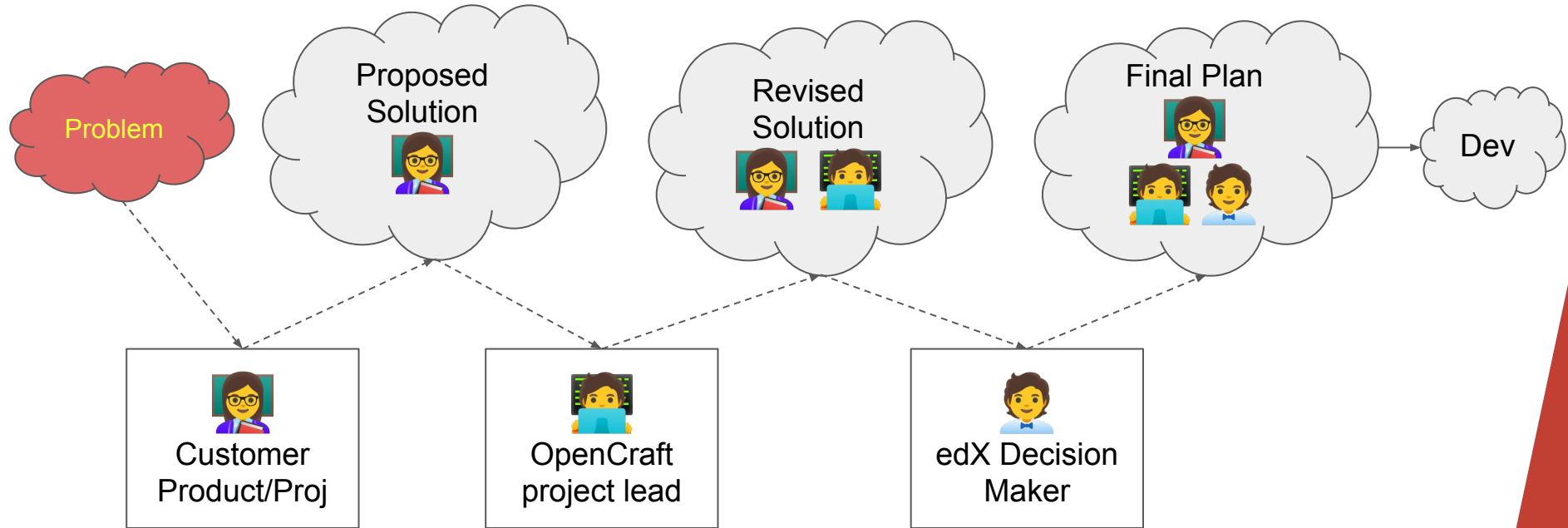
- Make Content Libraries into full-fledged flexible authoring environments, dynamic content management systems, and the foundation for adaptive content generation
- Enable delivery of diverse types of learning products or learning presentations, such as mini-courses, stackable learning sequences, customizable learning pathways
- Build easier course and content reuse workflows, both between Open edX courses and to external LMS'
- Create seamless integration experiences with adaptive engines and other third party LTI tools

What is modular content? Making **all levels of the course hierarchy** independent, re-usable, and composable as stand-alone learning products

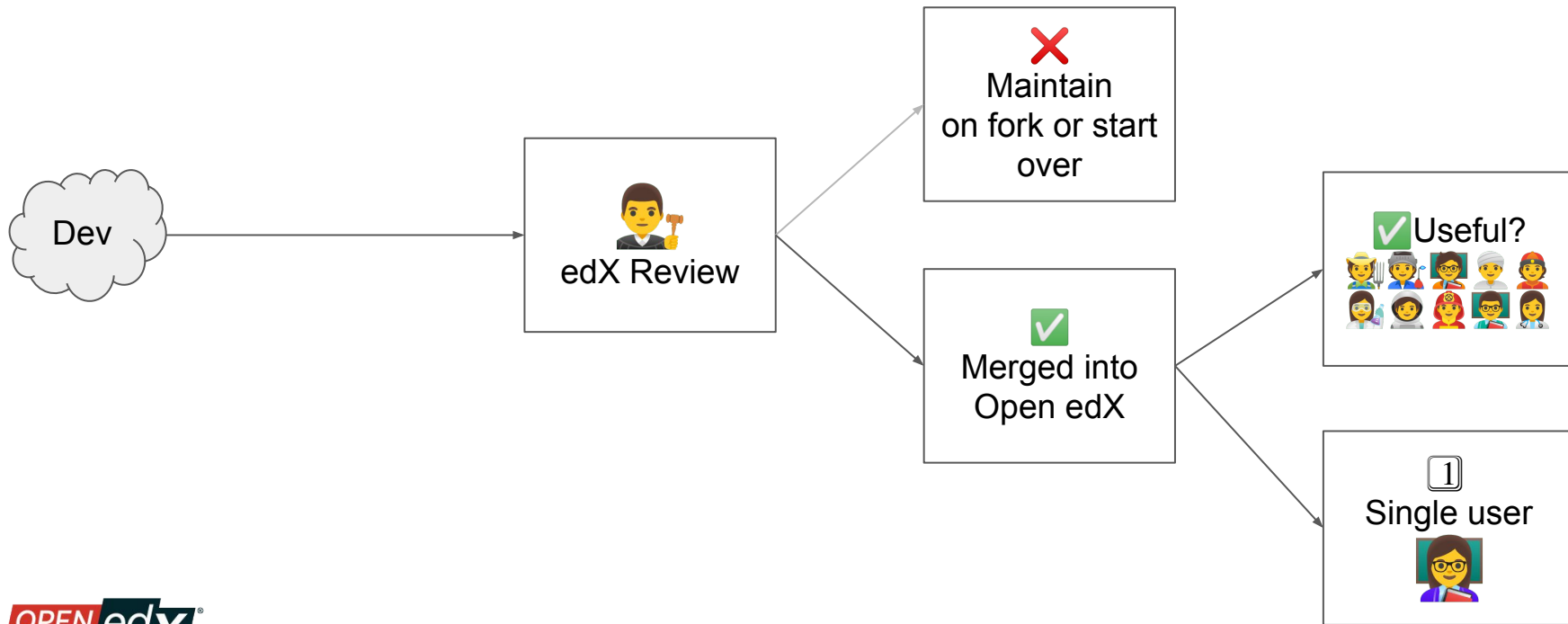
“We need to bust open the course!”
-Mike Hasset, WGU

The screenshot displays a course structure in an LMS. At the top, a 'Section' is listed with a dropdown arrow, a clock icon, and the text 'Scheduled: Jan 01, 2024 at 00:00 UTC'. Below it is a 'Subsection' with similar icons and text. Underneath is a 'Unit' with a document icon and the text 'Unpublished units will not be released'. Below these are three component types: 'Text component' with the text 'How to set me free!', 'Problem component' with the text 'Problem component' and '1 point possible (ungraded)', and 'Video component' which is a YouTube video titled 'edX - How It Works'.

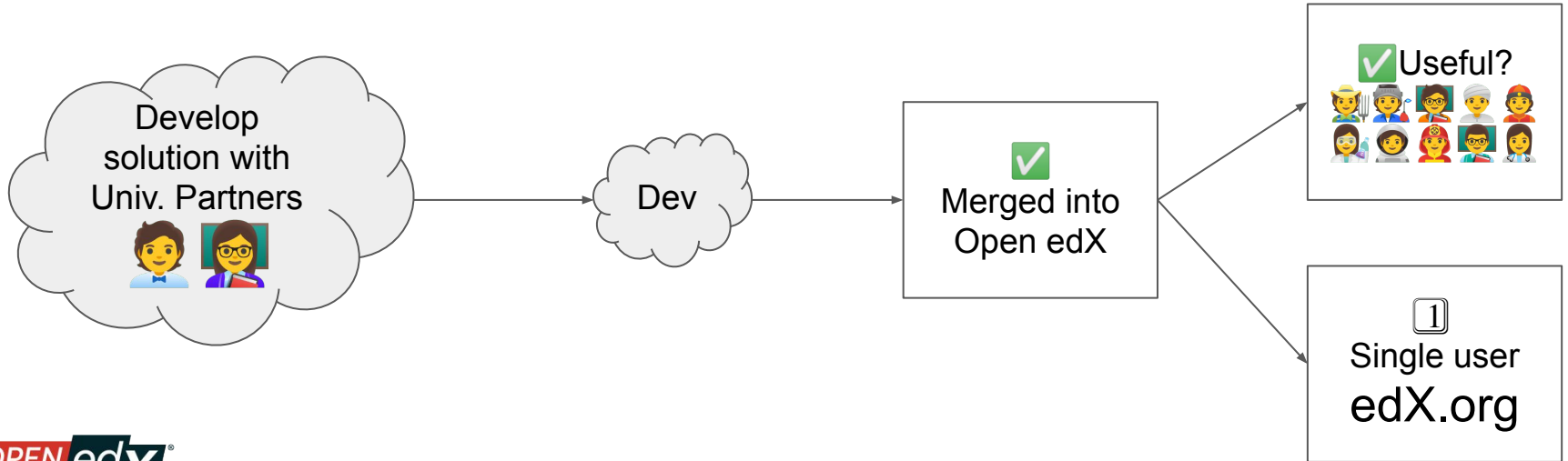
Previous approach to Product Development



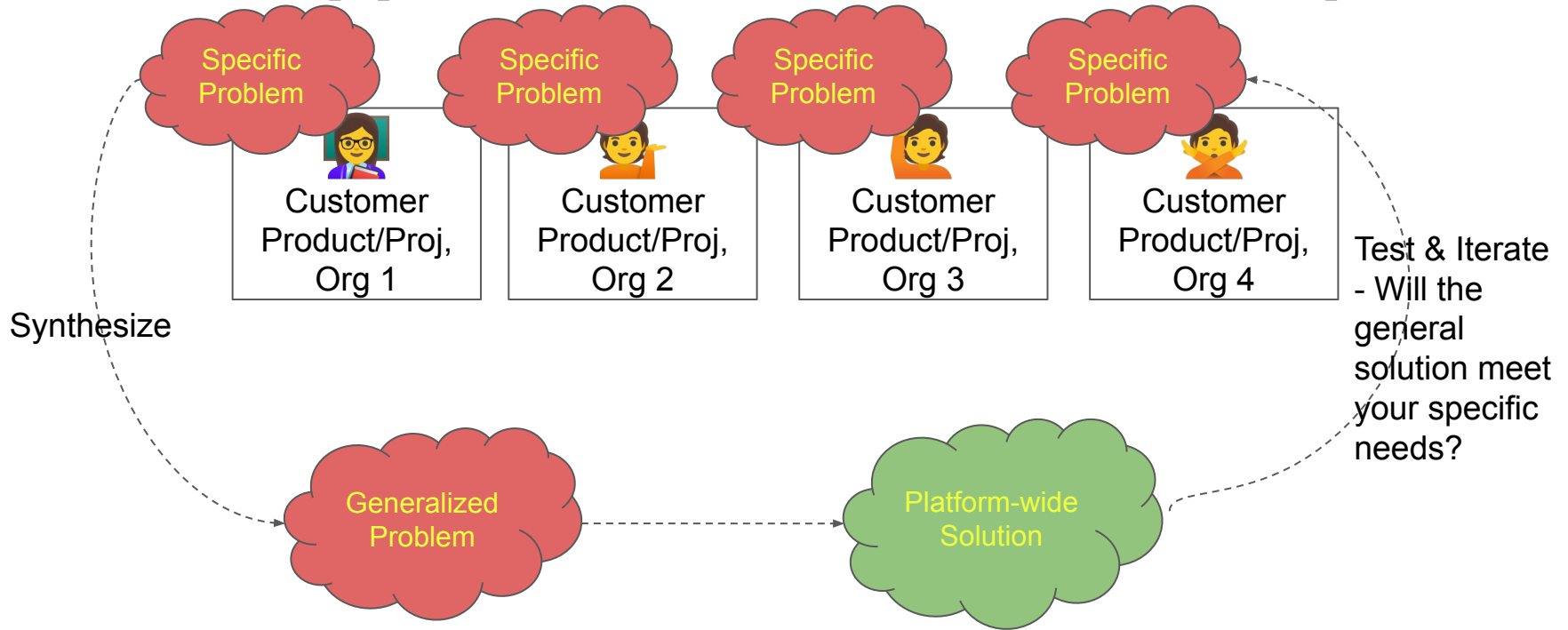
Previous approach to Product Development



Previous approach to Product Development



New approach to Product Development



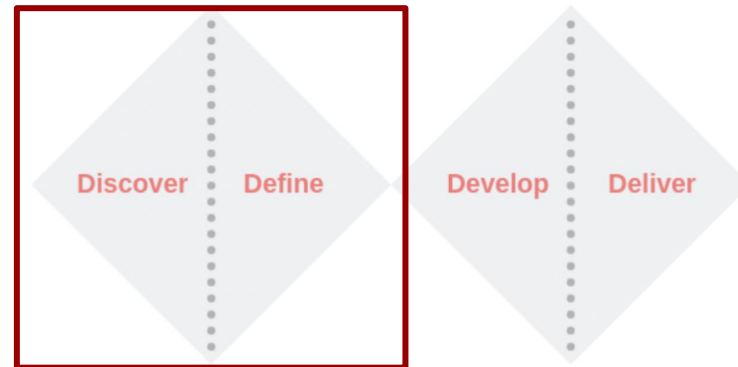
An Inclusive Approach to Product Discovery

Phase 1: Gathering and synthesizing

Phase 2: Stakeholder interviews

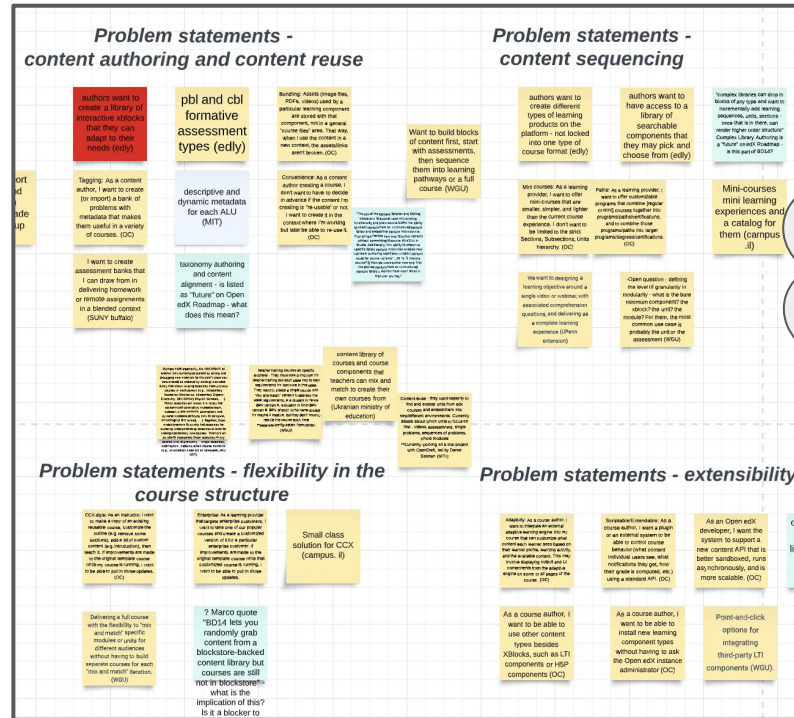
Phase 3: Generalized user stories

Phase 4: Stakeholder Feedback and adjustment



An Inclusive Approach to Product Discovery

Phase 1: Gathering and synthesizing



Specific problems around authoring and content creation

An Inclusive Approach to Product Discovery

Phase 2: Stakeholder interviews

1. Clarify what your needs are in regards to content reuse.

REUSE:

Stakeholder 1



Stakeholder 2



Stakeholder 3



Specific and
standardized
questions

An Inclusive Approach to Product Discovery

Phase 3: Generalized user stories that reflect majority needs

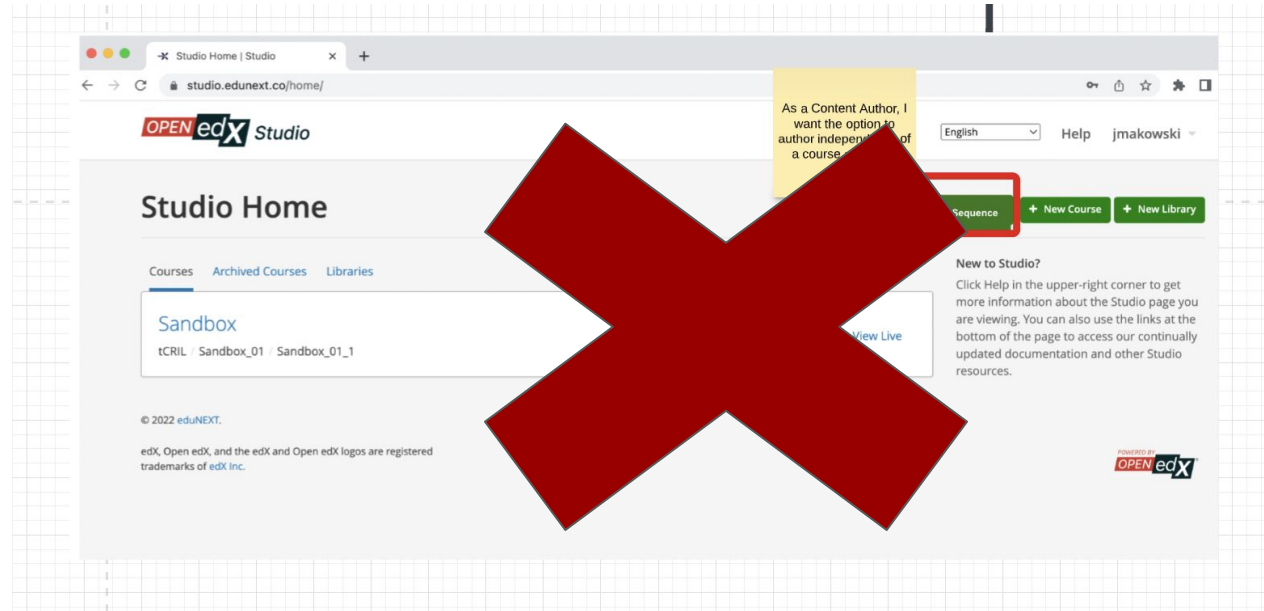
“As an author, I want to reuse an existing video, problem, unit, or even section from one course to another, to save time when creating content.”

“As an author, I want to be able to create units, subsections and sections, independently from the course outline, without knowing which course they’ll go in.”

An Inclusive Approach to Product Discovery

Phase 4: Stakeholder feedback and adjustment

- Simplified
- De-scoped
- Prioritized



An Inclusive Approach to Product Discovery

Open edX Product Management

Modular Learning

Approach Memo: Studio Copy & Paste for Content Reuse Across Courses

- Copy/paste Project Board
 - Technical Approach: Studio Copy/Paste Feature:
 - Design Docs
 - Discovery: Course/Content Configuration Conflicts
- ### Content Libraries Enhancements
- › Content Tagging
 - Create units, subsections and sections in Libraries

Open edX Product Manag... / Modular Learning



Approach Memo: Studio Copy & Paste for Content Reuse Across Courses



Created by Jenna Makowski

Last updated: Mar 15, 2023 • 2 min read • 37 people viewed • QC - R&U

STATUS: IN PROGRESS

Key concept: All levels of the course hierarchy are re-usable in another Open edX course
- component, unit, subsection, section

Full user stories [here](#).

Deliverable:

An Inclusive Approach to Product Discovery

Approach Memo: Studio Copy & Paste for Content Reuse Across Courses



Created by Jenna Makowski

Last updated: just a moment ago · 2 min read · 37 people viewed · QC - R&U

STATUS: IN PROGRESS

Key concept: All levels of the course hierarchy are re-usable in another Open edX course - component, unit, subsection, section

Full user stories [here](#).

Deliverable:

A lightweight functionality that enables authors to reuse components, units, subsections, and sections directly from one course to another. Reuse functionality will extend to the first MVP, the content is copied as a one-time action, and any future edits made to the content are synced. However, it is possible to edit the component independently in its new environment.

Benefits:

- Quick solution to part of the highest majority user story: to enable reuse at all levels of the course hierarchy
- Solution temporarily bypasses content libraries/blockstore, in order to create space to address the user story

Technical Approach: Studio Copy/Paste Feature:



Created by Jenna Makowski

Last updated: just a moment ago · 12 min read · 36 people viewed · QC - R&U

This is the Technical Approach doc for [Approach Memo: Studio Copy & Paste for Content Reuse Across Courses](#)

- **Key concept:** All levels of the course hierarchy are re-usable in another Open edX course - component, unit, subsection, section
- Full user stories [here](#)

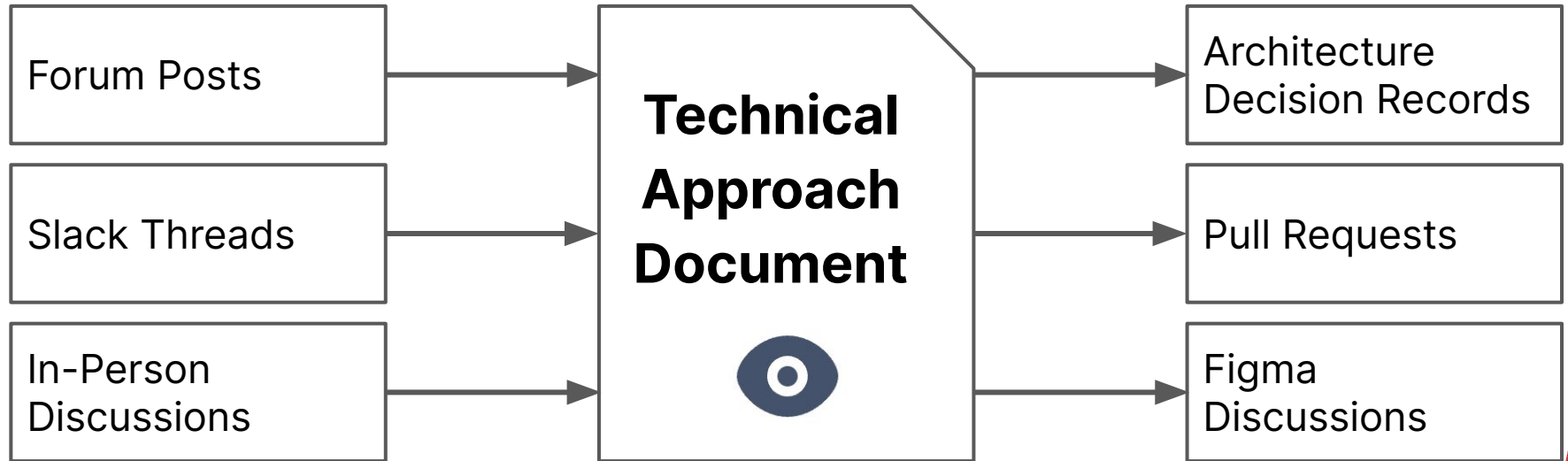
50+ views
20+ comment threads

functionality that enables authors to reuse components, units, subsections and sections from one course to another. The copy/paste functionality will also work for the content is copied as a one-time action, and any future edits made to the content, it is possible to edit the component independently in its new environment.

changes dependencies public static asset files Special Case: content_lib.zip Content Incompatibility and Reconciliation

An Inclusive Approach to Technical Discovery

Technical Approach Document as a Hub



An Inclusive Approach to Technical Discovery

  *It's okay to not have all the answers...*  

Possible solutions

Implementation Challenges

Future Possibilities

This needs to be tested.

Alternative UX Considered

An Inclusive Approach to Technical Discovery

Collaboration and Decision Making Example

Monica (Partner Support, 2U): “... **what if we let people use this to copy/paste a custom page?** A lot of times the content in those pages is applicable broadly...”

Dave (Engineering, tCRIL): “... the custom pages are **implemented with an XBlock type**, so copying those should be very similar to what's done for Components.”

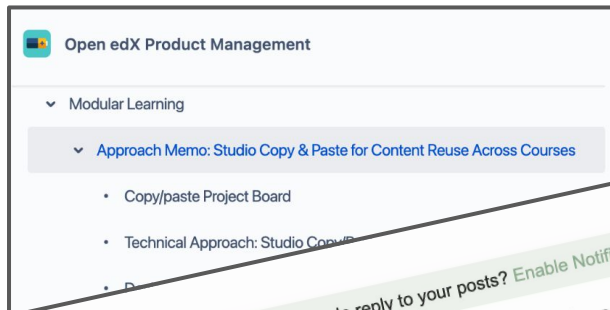
Jenna (Product, tCRIL): “**If it's the same effort as copying components**, we should definitely enable copying/pasting of pages for the MVP!”

Ali (Design, OpenCraft): “Good catch! **I'll add the ability to copy and paste custom pages to the wireframes.**”

Challenge: Communication Channels

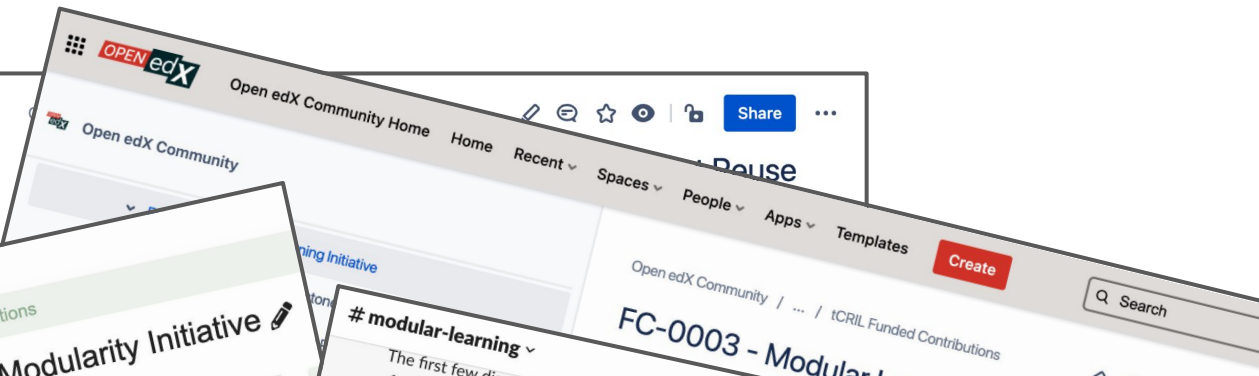


Challenge: Information Overload



Open edX Product Management

- Modular Learning
 - Approach Memo: Studio Copy & Paste for Content Reuse Across Courses
 - Copy/paste Project Board
 - Technical Approach: Studio Copy & Paste



Open edX Community Home

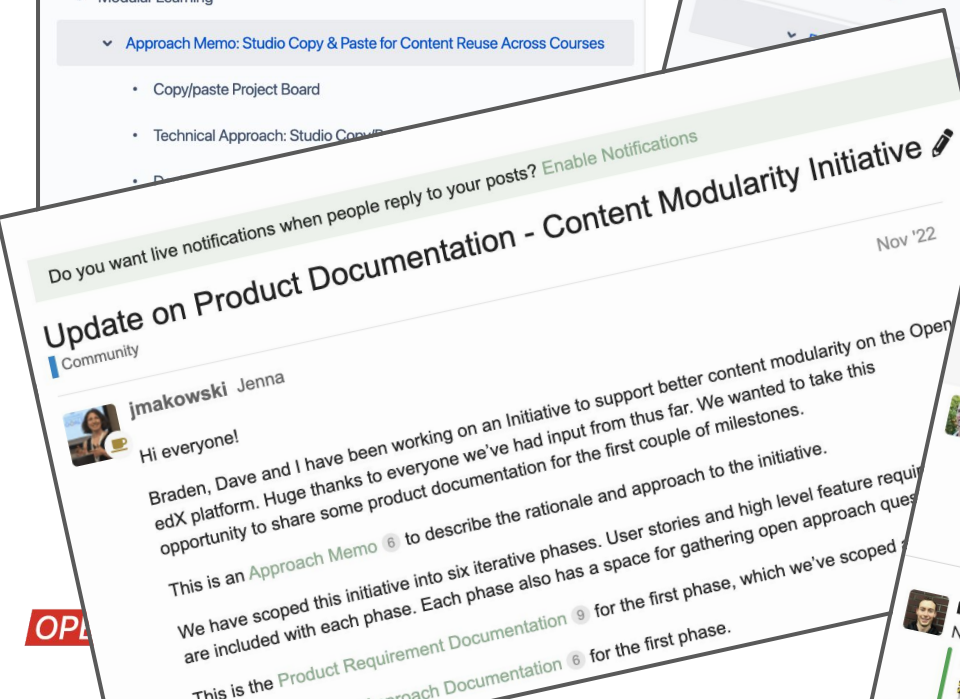
Home Recent Spaces People Apps Templates

FC-0003 - Modular Learning Initiative

Open edX Community / ... / ICRIL Funded Contributions

Create

Search



Do you want live notifications when people reply to your posts? [Enable Notifications](#)

Update on Product Documentation - Content Modularity Initiative

Nov '22

Community

jmakowski Jenna

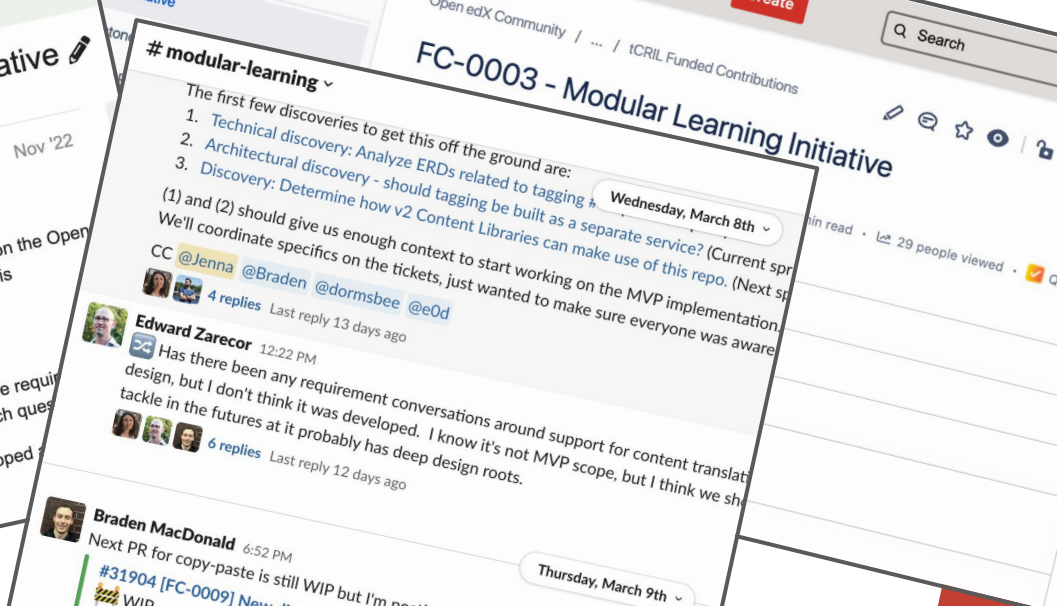
Hi everyone!

Braden, Dave and I have been working on an Initiative to support better content modularity on the Open edX platform. Huge thanks to everyone we've had input from thus far. We wanted to take this opportunity to share some product documentation for the first couple of milestones.

This is an [Approach Memo](#) to describe the rationale and approach to the initiative.

We have scoped this initiative into six iterative phases. User stories and high level feature requirements are included with each phase. Each phase also has a space for gathering open approach questions.

This is the [Product Requirement Documentation](#) for the first phase, which we've scoped to include [Approach Documentation](#) for the first phase.



modular-learning

The first few discoveries to get this off the ground are:

1. **Technical discovery:** Analyze ERDs related to tagging & reuse.
2. **Architectural discovery:** should tagging be built as a separate service? (Current spr...
3. **Discovery:** Determine how v2 Content Libraries can make use of this repo. (Next sp...

(1) and (2) should give us enough context to start working on the MVP implementation. We'll coordinate specifics on the tickets, just wanted to make sure everyone was aware

CC @Jenna @Braden @dormsbee @eOd

4 replies Last reply 13 days ago

Edward Zarecor 12:22 PM

Has there been any requirement conversations around support for content translation design, but I don't think it was developed. I know it's not MVP scope, but I think we should tackle in the futures at it probably has deep design roots.

6 replies Last reply 12 days ago

Braden MacDonald 6:52 PM

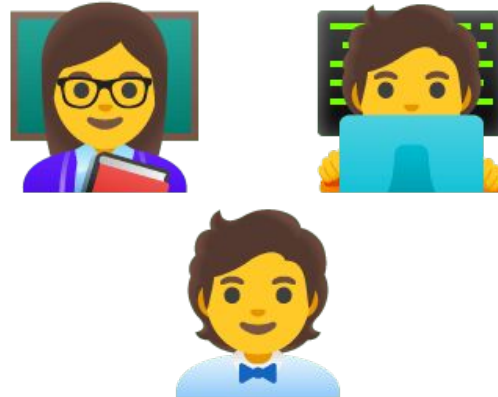
Next PR for copy-paste is still WIP but I'm near...

#31904 [FC-0009] New...

WIP

Thursday, March 9th

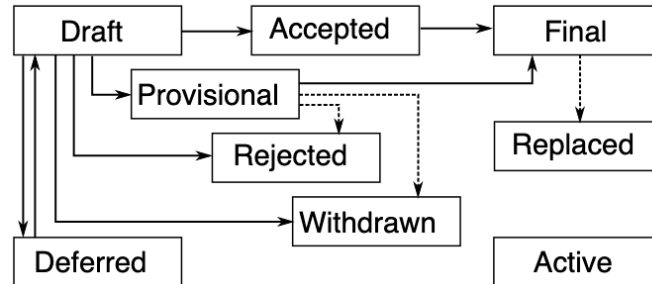
Challenge: Getting Involved



Learning Opportunities



1. Post ideas on Discourse forum
2. Feature request on the issue tracker, *or*
PEP Process
3. Discussion, revision



Learning Opportunities

OEPs

Best Practices

- [OEP-2: Repository Metadata](#)
- [OEP-9: User Authorization \(Permissions\)](#)
- [OEP-11: Front End Technology Standards](#)
- [OEP-13: Open edX web API conventions](#)
- [OEP-16: Bootstrap Adoption](#)
- [OEP-17: Feature Toggles](#)
- [OEP-18: Python Dependency Management](#)
- [OEP-19: Developer Documentation](#)
- [OEP-22: Caching in Django](#)
- [OEP-37: Dev Data](#)
- [OEP-38: Data Modeling Best Practices](#)
- [OEP-42: Authentication](#)
- [OEP-47: Semantic Versioning](#)
- [OEP-49: Django App Patterns](#)
- [OEP-51: Conventional Commits](#)

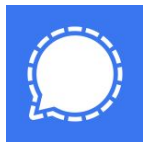
Architectural Decisions

- [OEP-3: Asynchronous Task Management](#)
- [OEP-4: Application Authorization \(Scopes\)](#)
- [OEP-6: Context-scoped XBlock Fields](#)
- [OEP-14: Archiving edX GitHub Repositories](#)
- [OEP-15: Course-wide Custom JavaScript](#)
- [OEP-23: Style Customization](#)
- [OEP-26: Real-time Events](#)
- [OEP-30: PII Markup and Auditing](#)
- [OEP-31: Micro-frontend Internationalization](#)
- [OEP-32: Unique Identifier for Users](#)
- [OEP-41: Asynchronous Server Event Message Format](#)
- [OEP-45: Configuring and Operating Open edX](#)
- [OEP-48: Brand Customization](#)
- [OEP-50: Hooks extension framework](#)
- [OEP-52: Event Bus Architecture](#)
- [OEP-58: Translations Management](#)

Processes

- [OEP-1: OEP Purpose and Guidelines](#)
- [OEP-10: Open edX Releases](#)
- [OEP-21: Deprecation and Removal](#)
- [OEP-54: Core Contributors](#)
- [OEP-55: Project Maintainers](#)
- [OEP-56: Architectural Advisory Process](#)
- [OEP-57: Core Product](#)
- [OEP-60 Open Source Security Working Group](#)

Learning Opportunities?



Signal

There is not and there has never been a public road map. The closest you'll get to a road map is reading the [blog posts](#).



VLC

4.0
expires on Nov 1, 2023
Open VideoLAN / VLC

1129 Issues · 2464 Merge requests
67% complete



Firefox

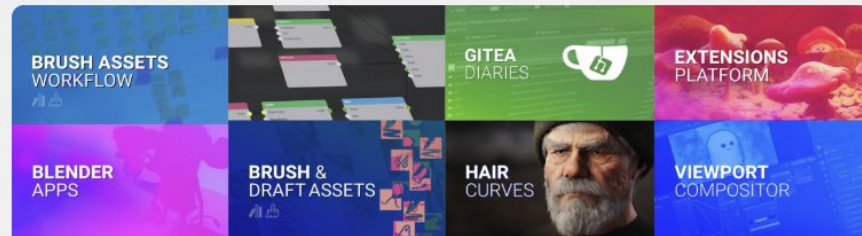
Mozilla is working on a roadmap of sorts for Firefox. Finally we can see what will come to firefox.

Learning Opportunities



Projects to Look Forward to in 2023

JANUARY 5TH, 2023 - DEVELOPMENT, NEWS - TON ROOSENDAAL

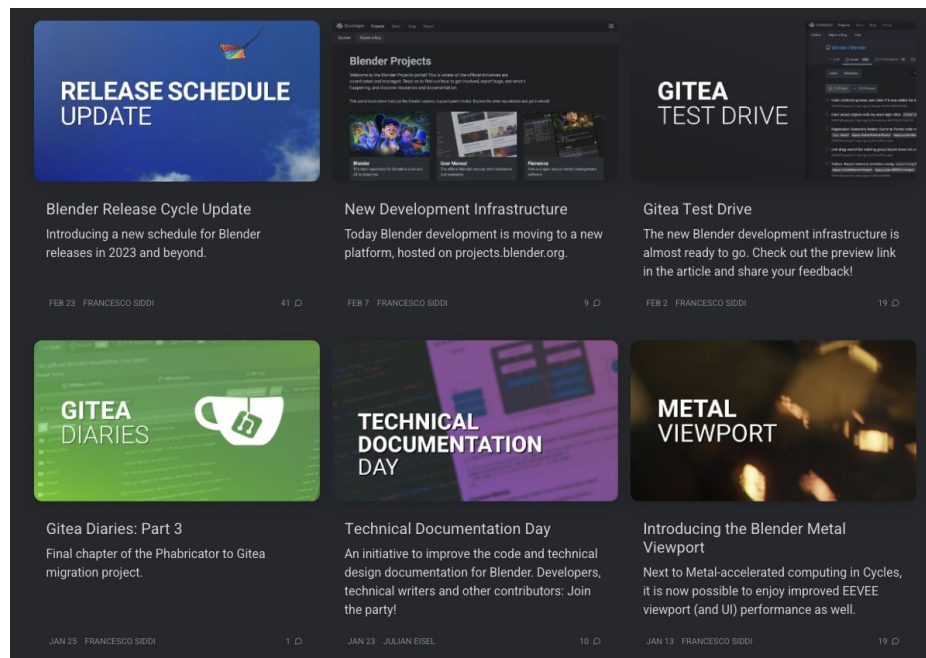


The upcoming year is going to be interesting for Blender. Aside from the blender.org community effort to keep core functionality stable and up to date, several high profile projects have started already that – fingers crossed – might get realized this year.

Weekly Updates

- 27 March 2023 (Upcoming - finalized at 19:00 CET)
- 20 March 2023
- 13 March 2023
- 6 March 2023
- 27 February 2023
- 20 February 2023
- 13 February 2023

[Get involved](#) in Blender development.





Modules

Blender development is organized into modules and projects with different teams.

General

Module	Topics
Core	DNA & RNA, .blend file, undo, datablocks, linking, overrides, support libraries
Development Management	Communication, release, documentation, forum, onboarding, infrastructure
Platforms, Builds, Tests & Devices	Windows, macOS, Linux, automated tests, build system, release builds, libraries
Triaging	Triaging bug reports and first round of pull request review
User Interface	Interface, window manager, internationalization, tools & operators, outliner

Features

Module	Topics
Add-ons	Official and community add-ons
Animation & Rigging	Graph editor, dopesheet editor, NLA editor, keyframes, drivers, constraints, armatures
Grease Pencil	Grease pencil drawing, editing, sculpting and all related to 2D animation module in Blender
Modeling	Meshes, modifiers, nurbs, curves, metaballs, transform, UV editor, subdivision surfaces
Nodes & Physics	Geometry nodes, function nodes, node editor, simulations, rigid body, cloth, softbody, fluids
Pipeline, Assets & I/O	Import/export, integration into production pipelines, and asset browser
Python API	Python API, text editor and console
EEVEE & Viewport	EEVEE, workbench, overlays, GPU, OpenGL, Vulkan, Metal, multi-view, virtual reality
Render & Cycles	Cycles, render pipeline, materials, textures, Freestyle, baking and color management
Sculpt, Paint & Texture	Sculpting, vertex and image painting
VFX & Video	Video sequencer, compositor, motion tracking, Libmv, audio

Description

This project includes the graph editor, dopesheet editor, NLA editor, keyframes, drivers, constraints, armatures, and more.

Status

The module is working on [Animation 2025](#), as well as polishing existing features and resolving bugs.

Members

Module owner: [@dr.sybren](#)

Developers: [@angavrilov](#), [@amelief](#), [@chrislend](#), [@cmbasnett](#), [@nrupsis](#), [@PaoloAcampora](#), [@dr.sybren](#)

Artists: [@BassamKurdali](#), [@BCClark](#), [@zanqdo](#), [@Mets](#), [@hjalti](#), [@JasonSchleifer](#), [@jpbouza-4](#), [@LucianoMunoz](#), [@EosFoxx](#), [@SimonThommes](#)

Subproject	Developers
Animation Editors & Tools	@angavrilov , @chrislend , @dr.sybren , @sergey
Inverse Kinematics	@brecht
Constraints	@angavrilov
Non-Linear Animation (NLA) Editor	

Contacts

- [#animation-module](#) on [blender.chat](#).
- [Forum](#) with meeting agenda/notes and some other topics. There is also a [meeting calendar](#).
- [Mailing List: bf-committers](#)
- Bug reports and patches are to be tagged with 'module > Animation & Rigging'

Documentation

- [Wiki](#) for things that aren't tracked here (ideas for the future/bigger project ideas, code documentation, approach to code reviews, etc.)
- [Issues](#)
- [Pull Requests](#)



Stay Connected

Get your questions answered on the developers forum, and chat in real-time with developers and users.

[DevTalk](#)

[#blender-coders](#)



Stay Social

Watch developers code on YouTube live streams, and follow the latest updates on Twitter.

[YouTube](#)

[Twitter](#)



Stay Tuned

What's new and what's up. Every week notes and live streams.

[Blender Today](#)

[Weekly Meetings](#)

[Module Meetings](#)

Feedback Wanted on Area Docking Ideas

■ User Interface

Testing Wanted for Windows Clipboard Cop

■ User Interface

New Line Art proposal 2023, feedback?

■ Blender Development [grease-pencil](#)

Suggestions / feedback on the extensi

■ Blender Development [python](#)

Feedback wanted on Cycles resolution

■ Other Development Topics ■ User Feedback



Alaska

I created a patch that has now been merged with Blender master resolution divider Cycles uses in the viewport. [Cycles: adjust res](#)
[usable viewport · 0963ee559e - blender - Blender Projects](#) 9

CHANGELOG



ROADMAP



**PRODUCT
PLANNING
IN THE OPEN**



Open Questions and Discussion

How can we do this better next time, and going forward?