Leveraging LTI and CASA to expand the value of your LMS Environment

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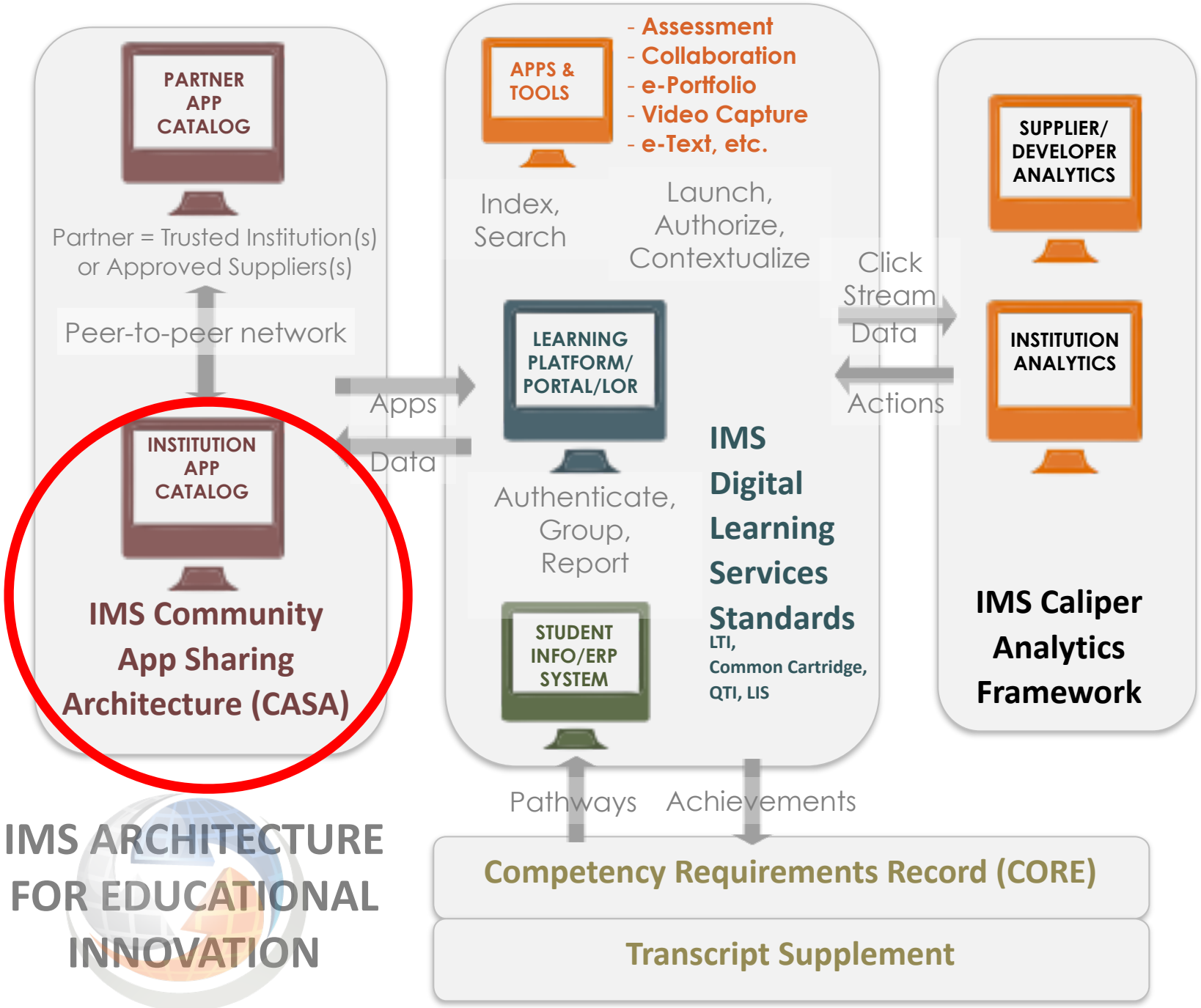
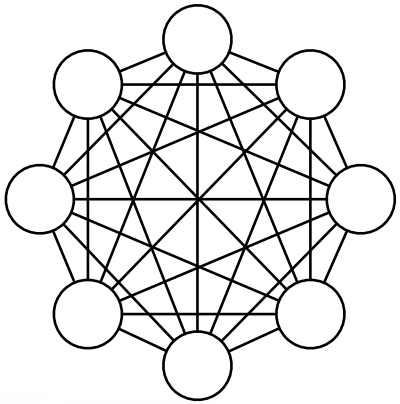
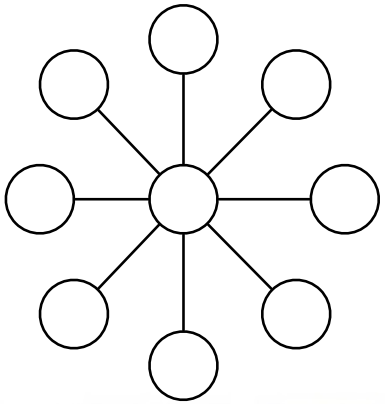

PARTNER APP CATALOG
Partner = Trusted Institution(s) or Approved Suppliers(s)
Peer-to-peer network
INSTITUTION APP CATALOG
IMS Community App Sharing Architecture (CASA)
APPS & TOOLS
- Assessment
- Collaboration
- e-Portfolio
- Video Capture
- e-Text, etc.
Index, Search
Launch, Authorize, Contextualize
Apps
Data
LEARNING PLATFORM/ PORTAL/LOR
Authenticate, Group, Report
STUDENT INFO/ERP SYSTEM
IMS Digital Learning Services Standards
LTI, Common Cartridge, QTI, LIS
Click Stream Data
Actions
SUPPLIER/ DEVELOPER ANALYTICS
INSTITUTION ANALYTICS
IMS Caliper Analytics Framework
Pathways
Achievements
Competency Requirements Record (CORE)
Transcript Supplement
IMS ARCHITECTURE FOR EDUCATIONAL INNOVATION

Evolution of LTI App Sharing

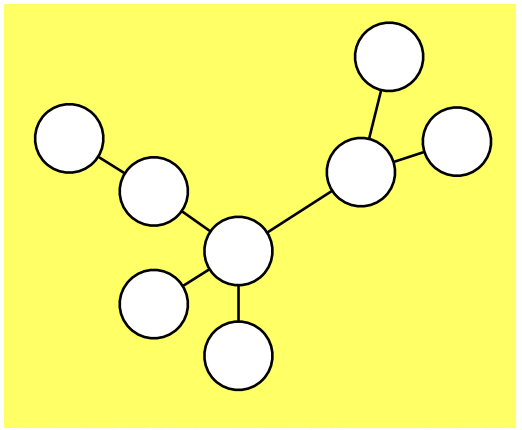
Inefficient Integration



Authoritative Integration



Peer to Peer App Ecosystem



What can CASA do?

- **Publish, share & connect**
- **Curate & filter the network**

Why is CASA Useful ?

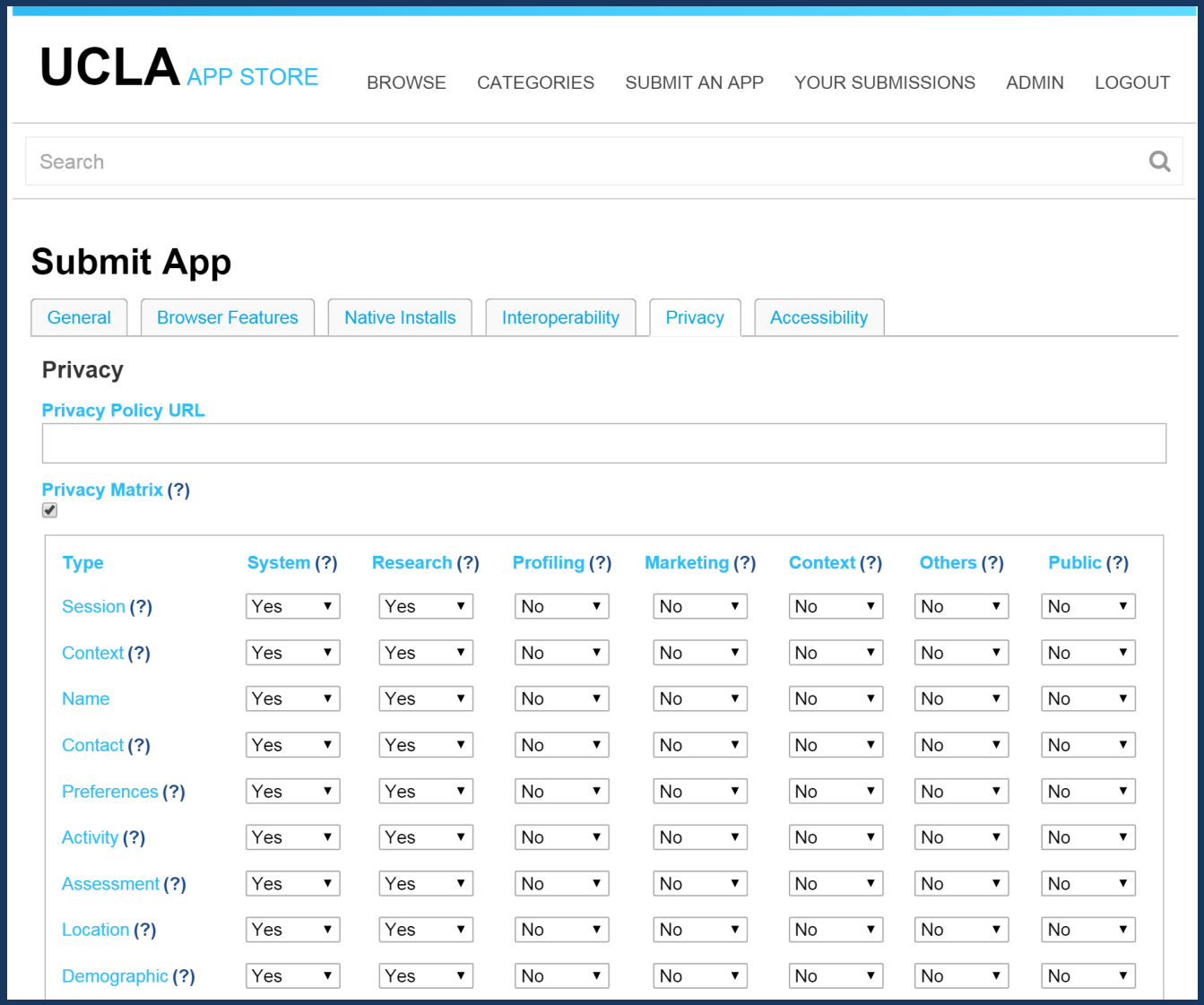
- Provides Discovery and local ratings of apps
- Curation of Apps with regard to our own
  - Policys:
    - Mobile Friendly
    - Ads
    - Privacy
    - Accessibility
    - Standards

How does this work?

Where does all the meta data come from?

App Meta Data & Policies

Filter based on Privacy...



Filter on Interoperability

Submit App

General | Browser Features | Native Installs | Interoperability | Privacy | Accessibility

Interoperability

LTI

IMS Global's Learning Tools Interoperability (LTI) standard allows for interoperability between applications and consumers such as learning management systems. These properties allow the app store to push an app back to a learning management system with all the information necessary to set up the app as an LTI tool.

Supports LTI

☑

Launch URL

Configuration URL

Registration URL

Versions Supported

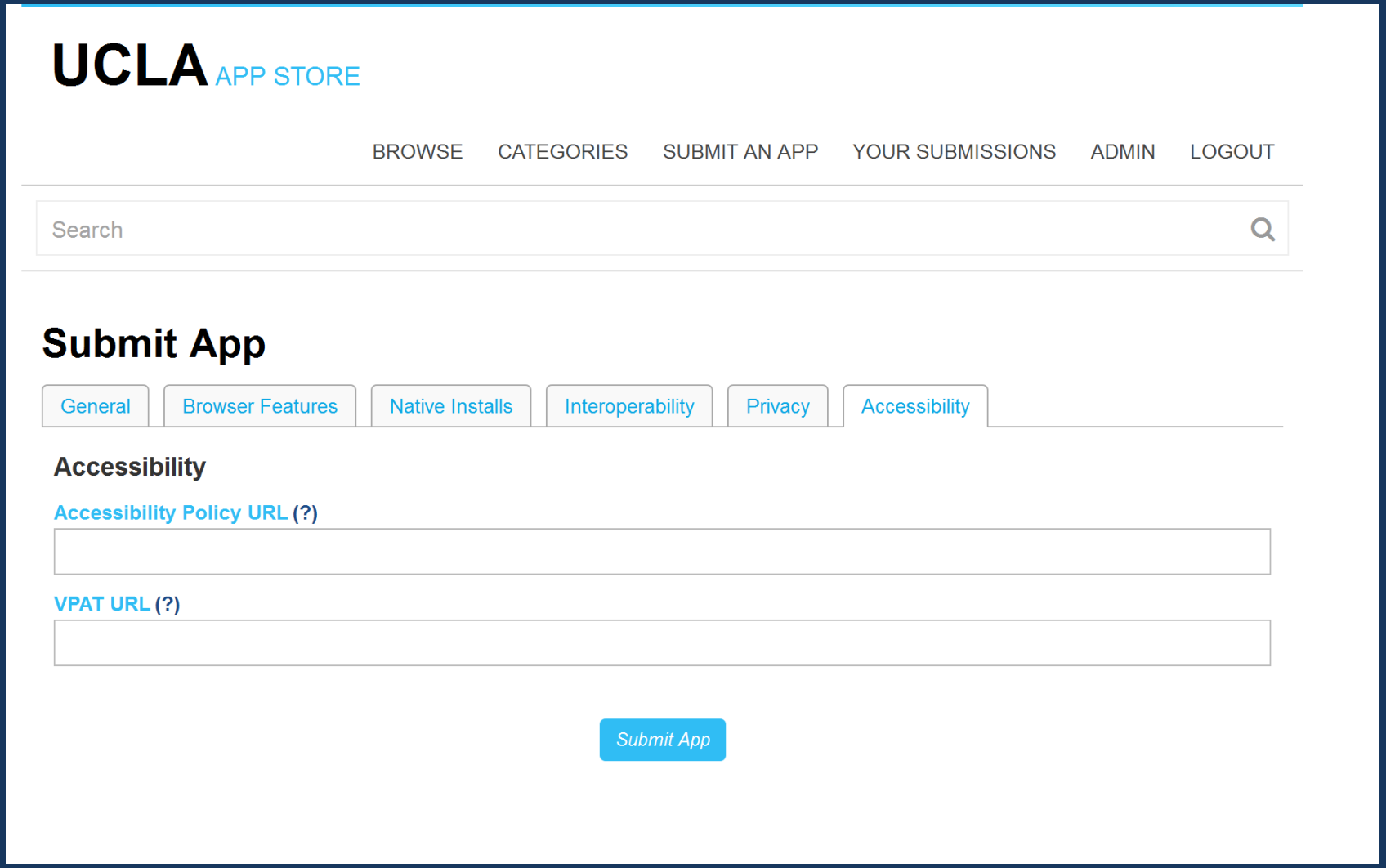
1.0
1.1
1.2
2.0

Outcomes

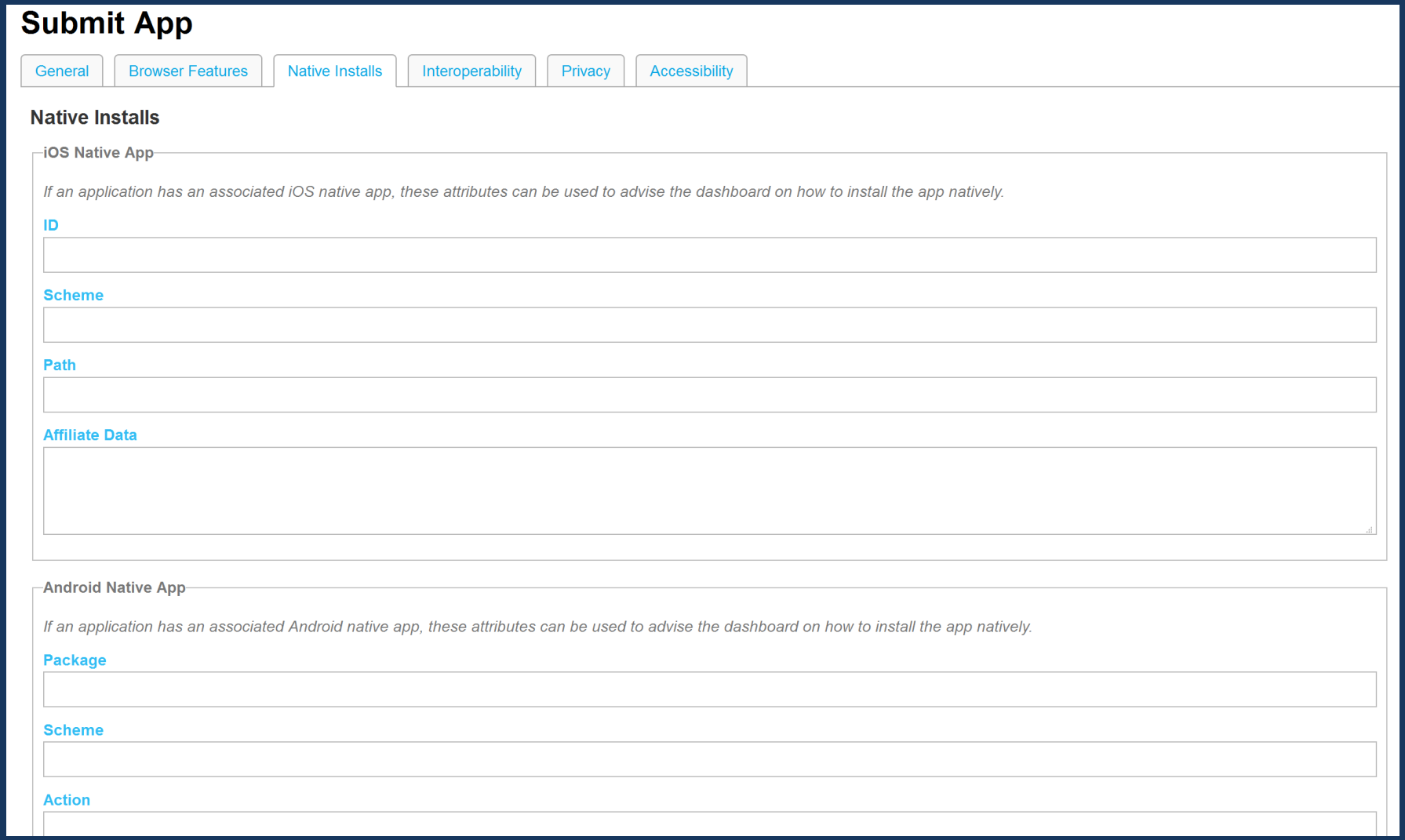
No

Submit App

Filter on Accessibility



Launch Web & Native Apps if exist



What else can CASA do?

- **Discover, review & rate**
- **Collect, analyze & explore**

App Discovery in an LMS

Use Case:

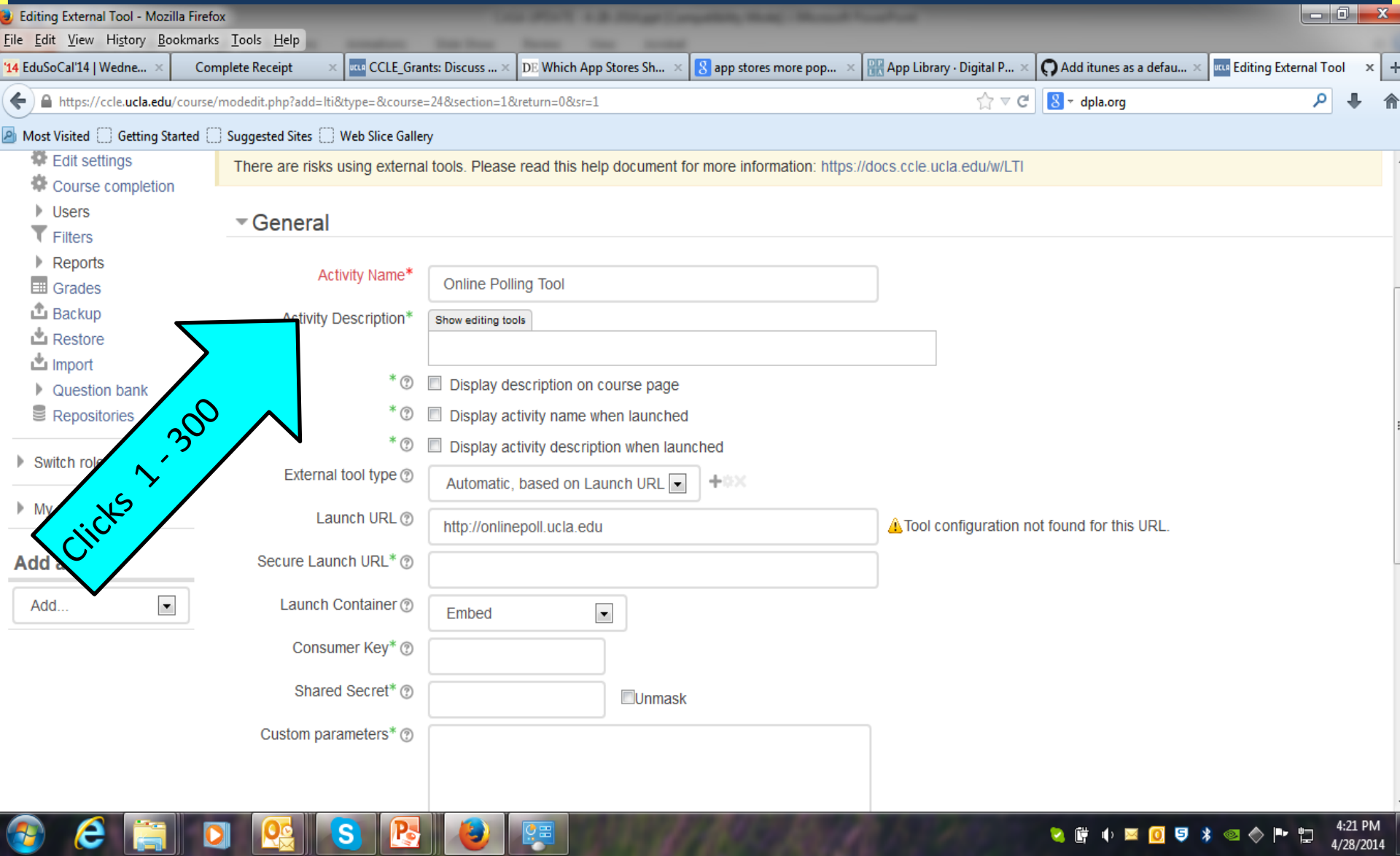
Connecting to a new LTI app in Moodle Today...

takes about 300 clicks

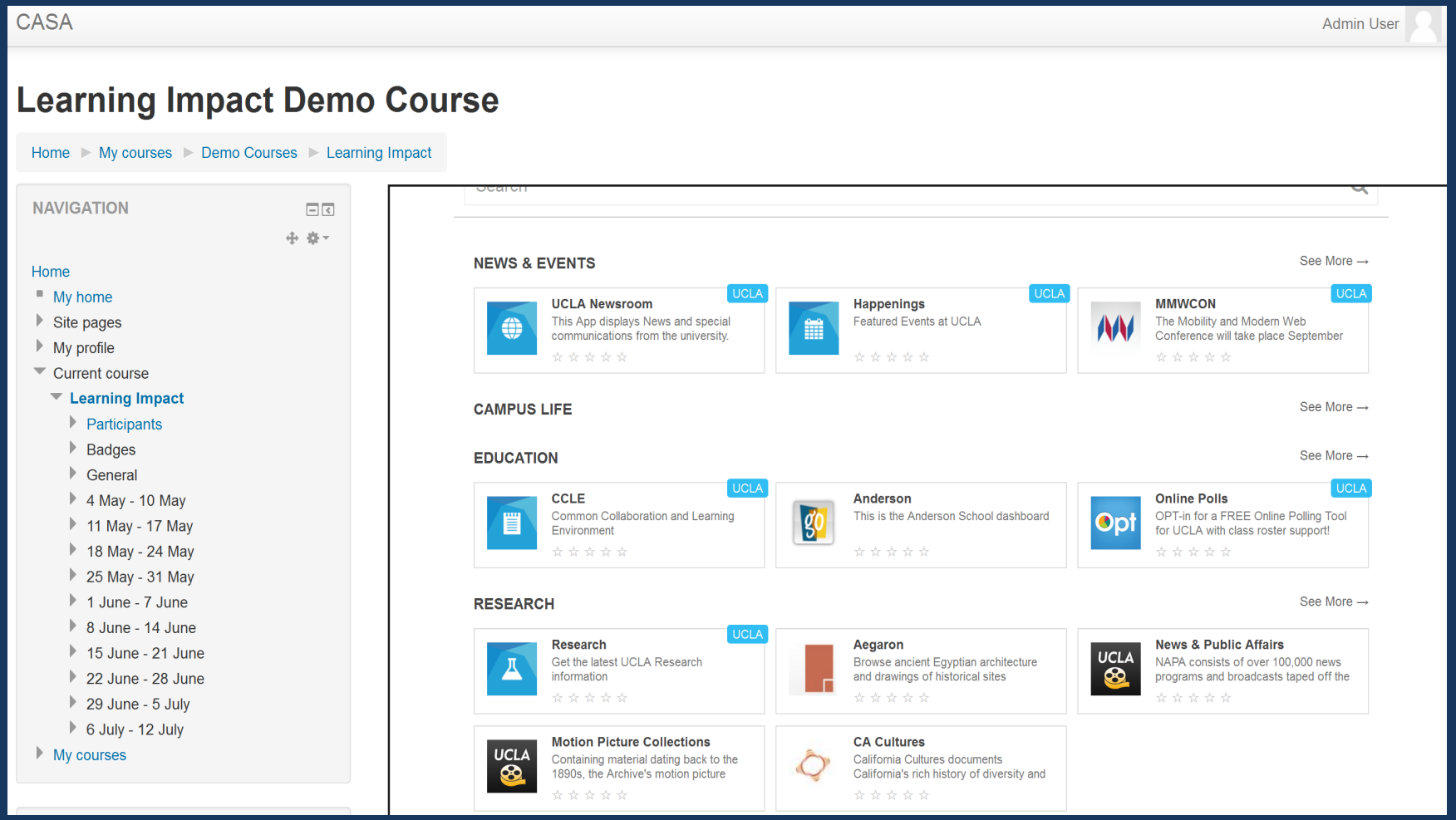
The problem:

Instructors, do not have a good mechanism to **discover**, find and review **ratings** of **LTI enabled tools** so that they can quickly and expediently figure out which ones will enhance their courses.

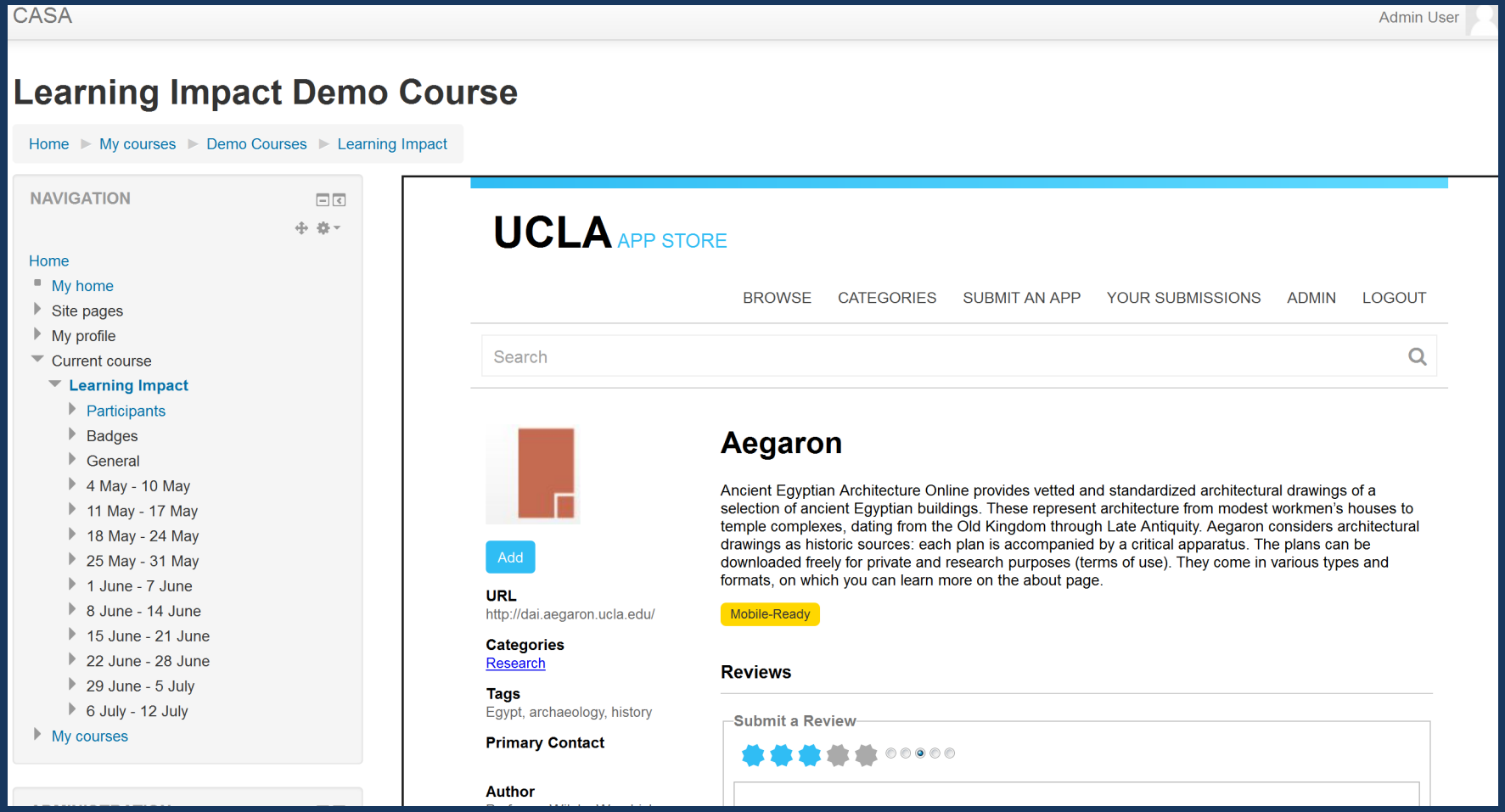
Adding External Tools w/o CASA



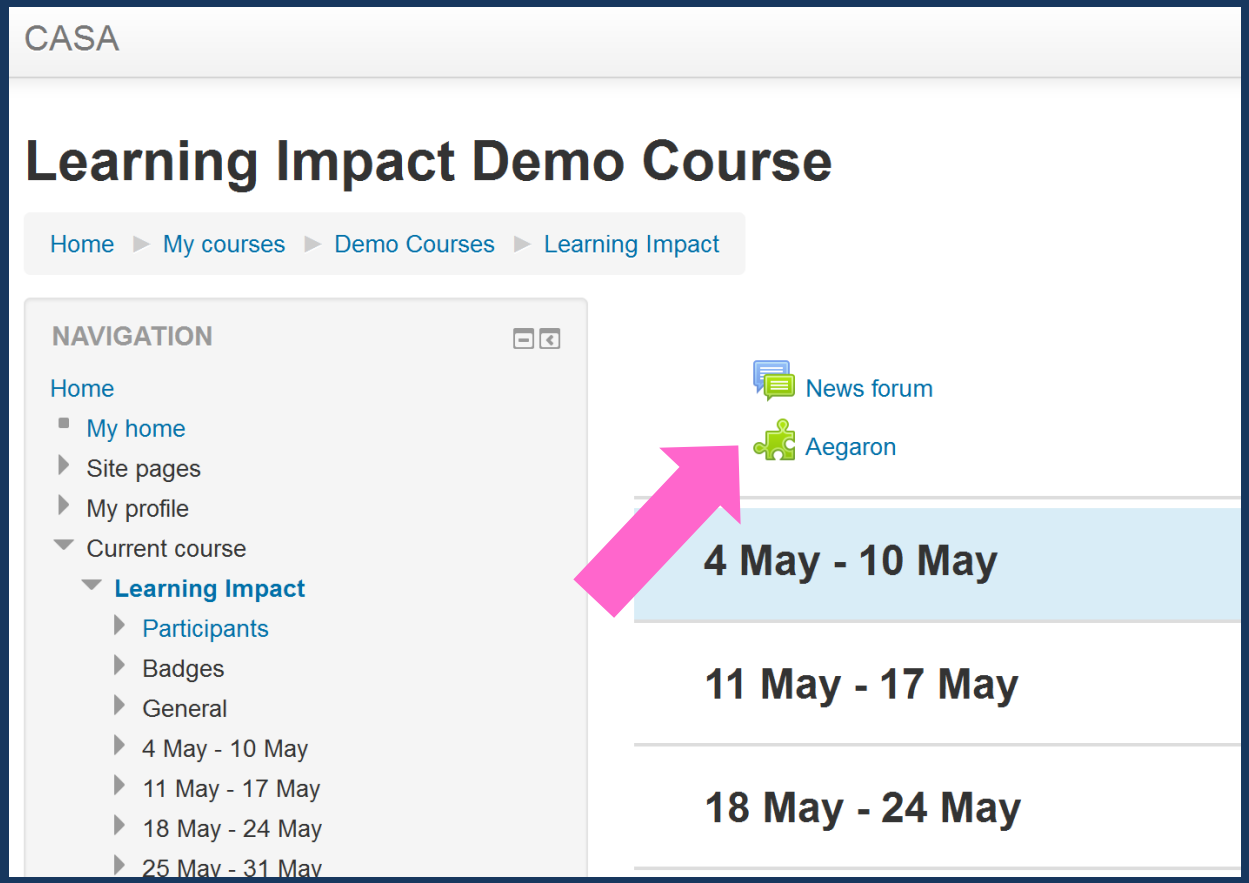
LTI App store inside Moodle



Review App & Add it



Tool Added into Course



Great, Lots of new tools, but…

- The institution has no idea…
  - Which content is being added to which courses
  - How content is being used
- The publisher has no idea…
  - How their content is propagating through the network
  - If and why their content is being rejected by other nodes
  - How effectively users are finding their content

Content Discovery Metric Profile

- Create sensors that report on…
  - How apps spread through the network
  - How apps are found and viewed
  - When apps are added to storefronts and courses
- Actors mirror CASA modules, but not CASA-specific
- Events (or some of them) could be applied to other stores, even if they don't have peering functionality

Events Captured by CASA Caliper Sensors

CASA Centric Environment Sensors

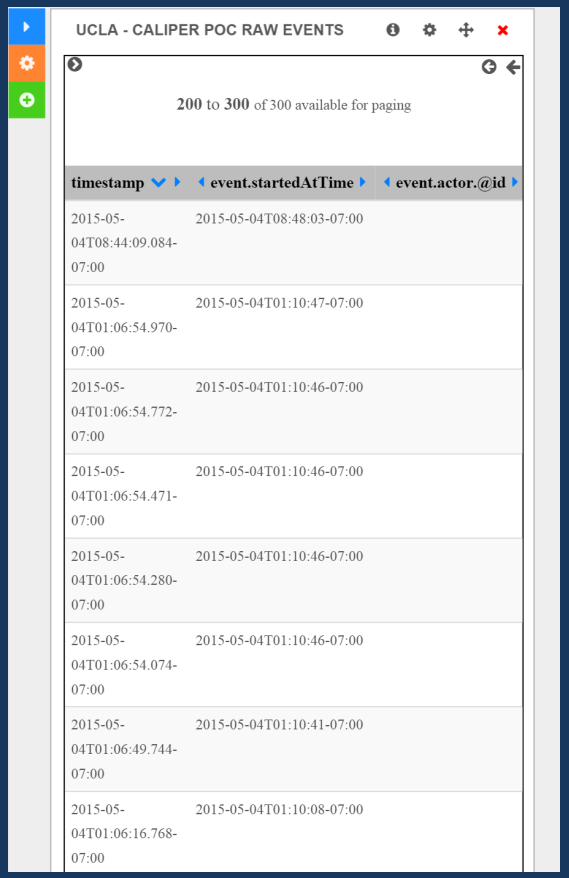
- nodeShared (publisher)
- nodeRejected (receiver)
- nodeAccepted (receiver)

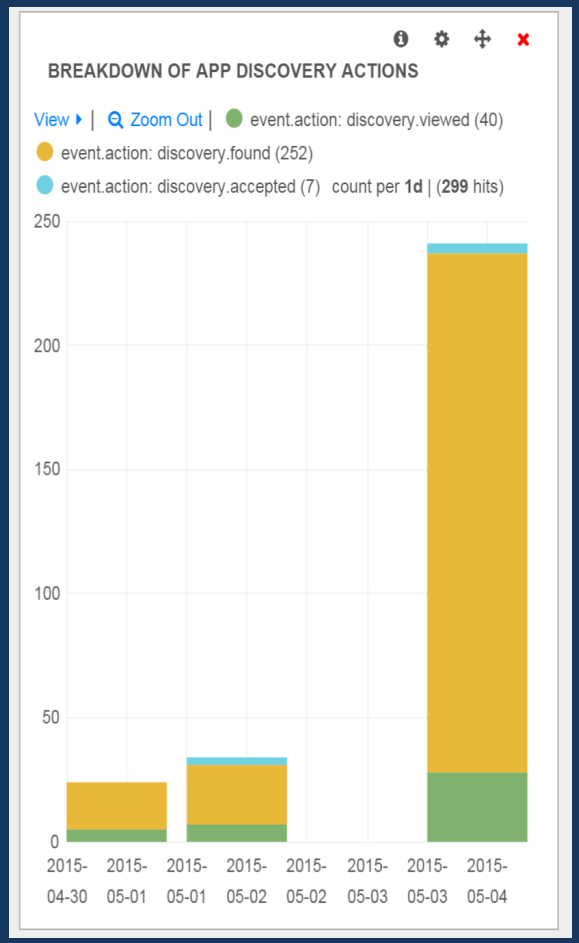
LMS Embedded Environmental Sensors

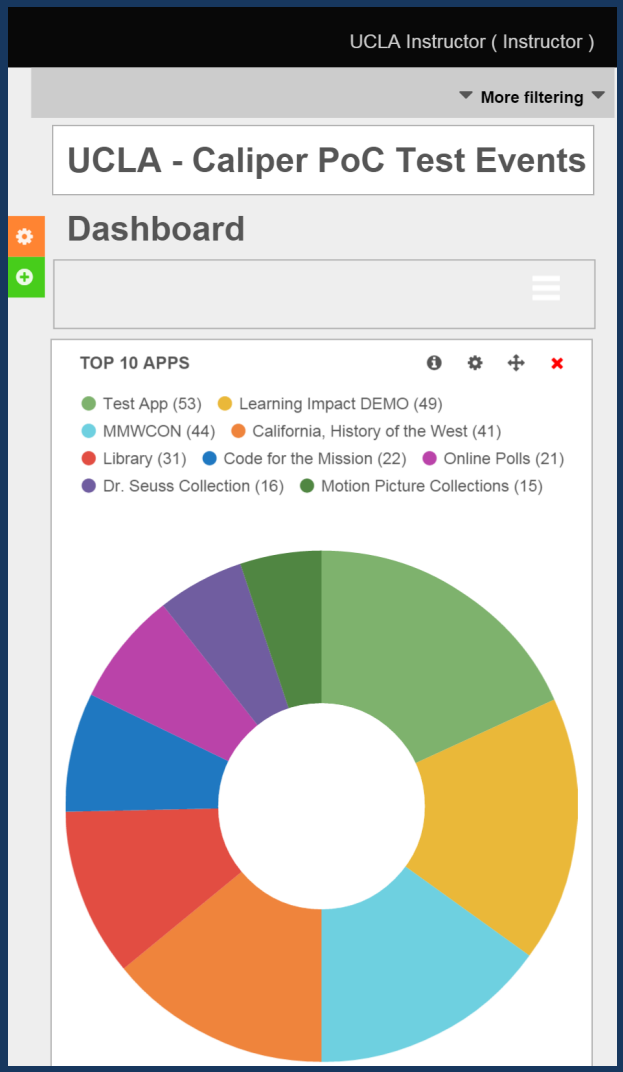
- userFound (storefront)
- userViewed (storefront)
- userAdded (consumer)

3 Demos

CASA-Caliper Sensor Visualization







What's Next for CASA?

- **Caliper Attribute**
  - This will allow filtering of tools that provide DATA back to the institution
- **Potential to add more LTI 2.0 details**
- **Competency attribute (s)**

Discussion – How do we share this message about CASA?

- How do we get the awareness we need?
- Ideas?
- Thoughts?
- Brainstorm?

How to get involved:

- Join the IMS Global CASA Taskforce
- Launch your own CASA App Store
- Or make your existing App Store speak CASA
- Join biweekly meeting discussions
- Develop attribute schemas
- Share how you implement CASA

Links

- CASA Mailing list link: http://www.imsglobal.org/casa/
- Current Protocol Link:
  http://imsglobal.github.io/casa-protocol
- CASA on Rails (available **FREE** – AGPL):
  - https://github.com/ucla/casa-on-rails
  - CHEF : https://github.com/ucla/chef-casa-on-rails-cookbook

Questions

?

Feel free to drop us a note @

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- Rose Rocchio: rrocchio@ucla.edu

Appendix

Browser features

Browser Features

This metadata can be used to determine if a user's browser is capable of supporting the app. A feature may use the settings "Required" if the application cannot be used without the feature, as well as "Optional" in the event that the app works best with it but will degrade gracefully if the browser does not support it.

Application Cache

Not Used

Canvas Element

Not Used

CSS Animations

Not Used

CSS Flexbox

Not Used

CSS Multi-column Layout

Not Used

CSS Transformations

Not Used

CSS Transformations (3D)

Not Used

CSS @font-face

Not Used

CSS :before and :after

Not Used

Drag-and-Drop

Not Used