Division of Laboratory Systems

Developing a Learning Management System on Open-Source Platforms

About the Speakers

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To see full speaker biographies, visit https://www.cdc.gov/labtraining/onelab/onelab-summit-2022.html

Division of Laboratory Systems

Developing a Learning Management System on an Open-Source Platform

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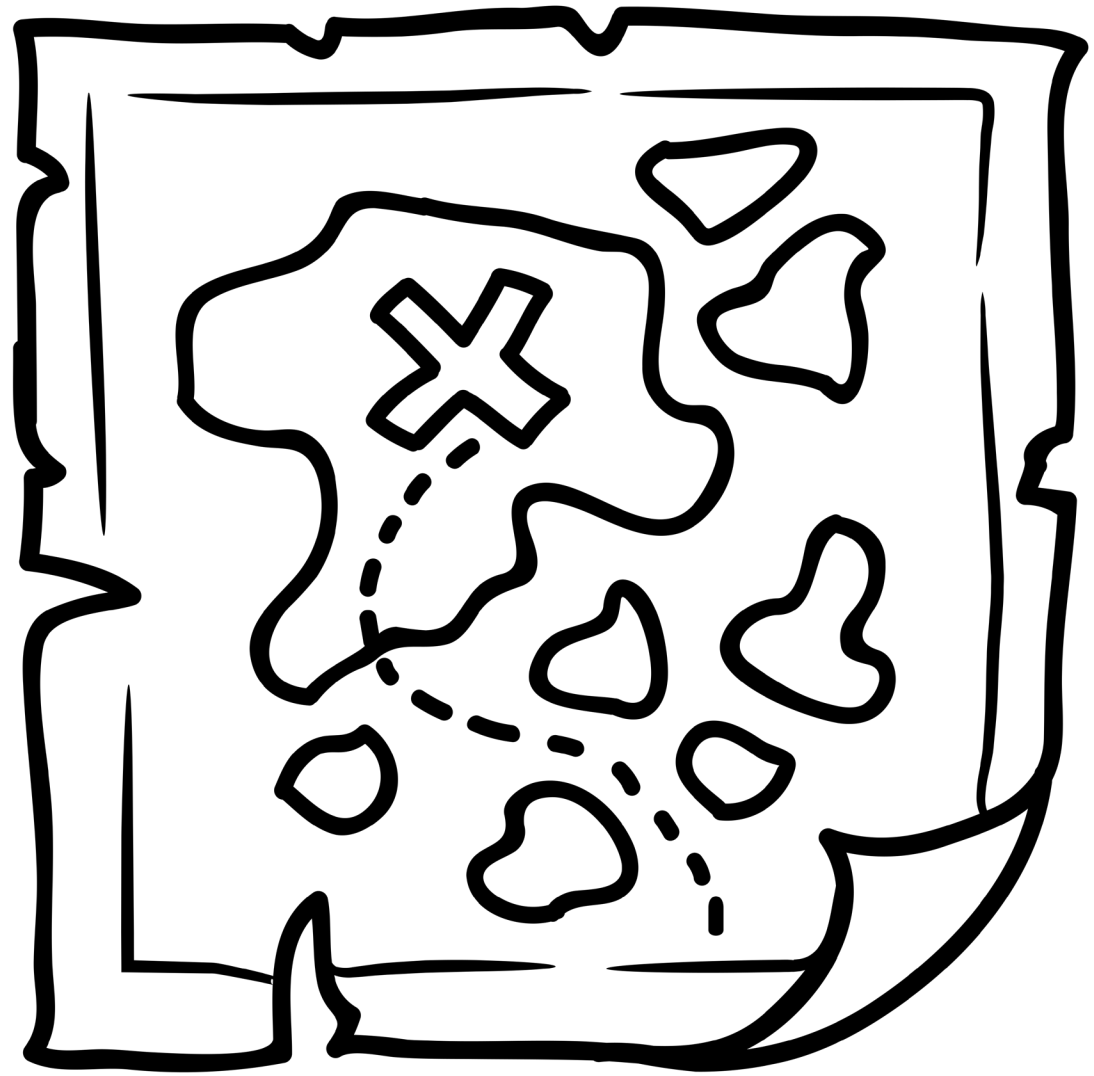
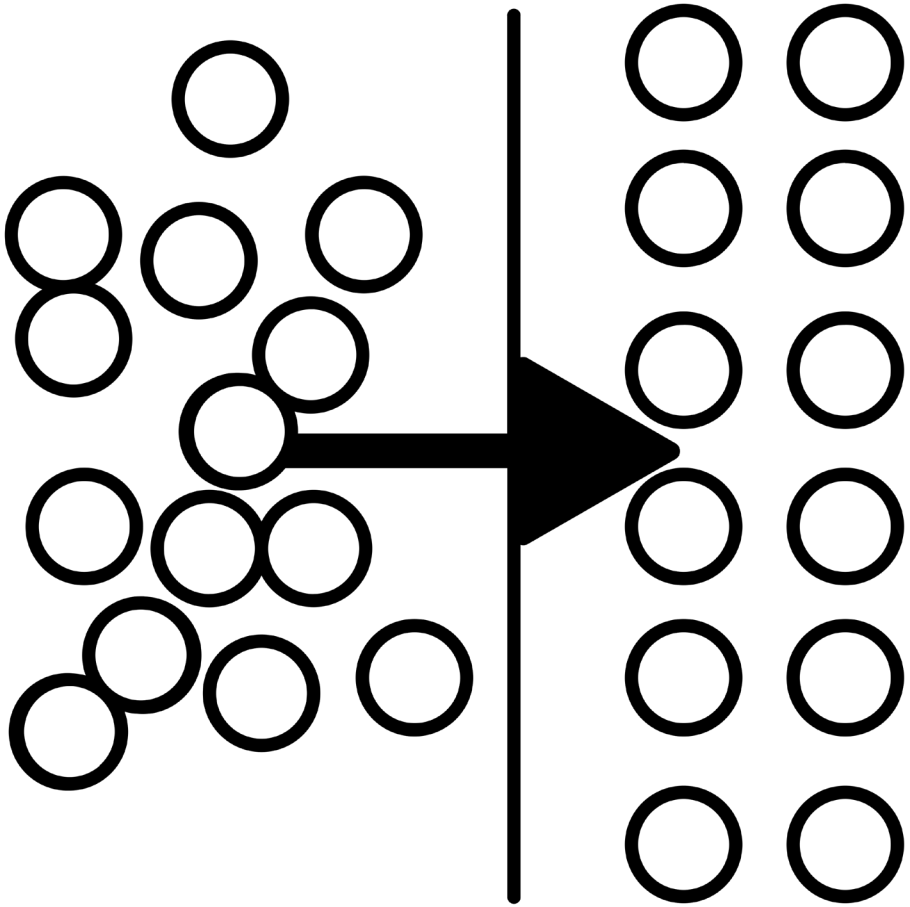
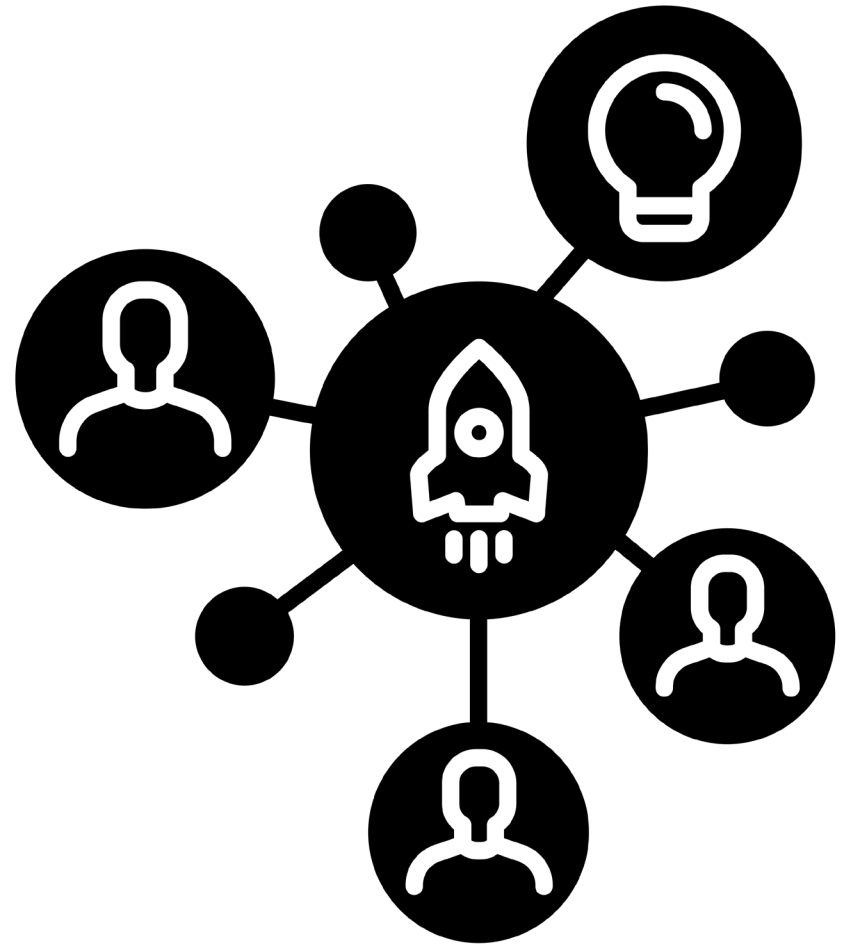
What is an LMS?

Why create a new LMS?







Lessons Learned

Develop criteria, then explore software options

- Initial high-level wish list:
  - Customizable for our target audience
  - Easy to use / intuitive for learners and LMS administrators
  - Accessible
  - Reliable
  - Sustainable
  - Secure

Develop criteria, then explore software options

- That wish list was fleshed out into 16 categories of requirements

Managing courses	• Uploading courses – with text information, images, basic labeling/categorizing for sorting feature on home page. Need three course "types"…on-demand eLearning, webinar, and Live Event. • Attach documents/brochures to courses • Be able to delete courses • Be able to password protect/restrict courses • Be able to duplicate courses • Be able to assign/modify expiration dates to courses • Automatically deactivate courses when expired • Be able to setup prerequisite courses
Pre/Post Assessments	• Optional pre/post-test built within LMS (editable T/F, MC, MA, images, Likert questions, date associated, scoring, order, duplicate, assign to courses). Ability to quickly modify if needed. • Optional pre/post-test built within training (open end point for training to record to LMS) • Pre/post-tests that are independent of course completions (if a user takes a live event training, we can simply send a URL for the pre/post-test to complete) • Create assessments independent of a course • Automatically saves answers that users who experience connectivity issues don't have to answer the same questions again. • Ability to retake posttest without having to drop course and re-enroll
Certification and transcripts	• Certificate of course completion • Add multiple certificates to one course • Customizable certificates • Setting rules on obtaining a certificate such as passing test and completing evaluation • Transcript with pass/fail score, date of completion, and certificate of completed courses • Downloadable certificate and transcript

Decide whether open-source software is a good fit

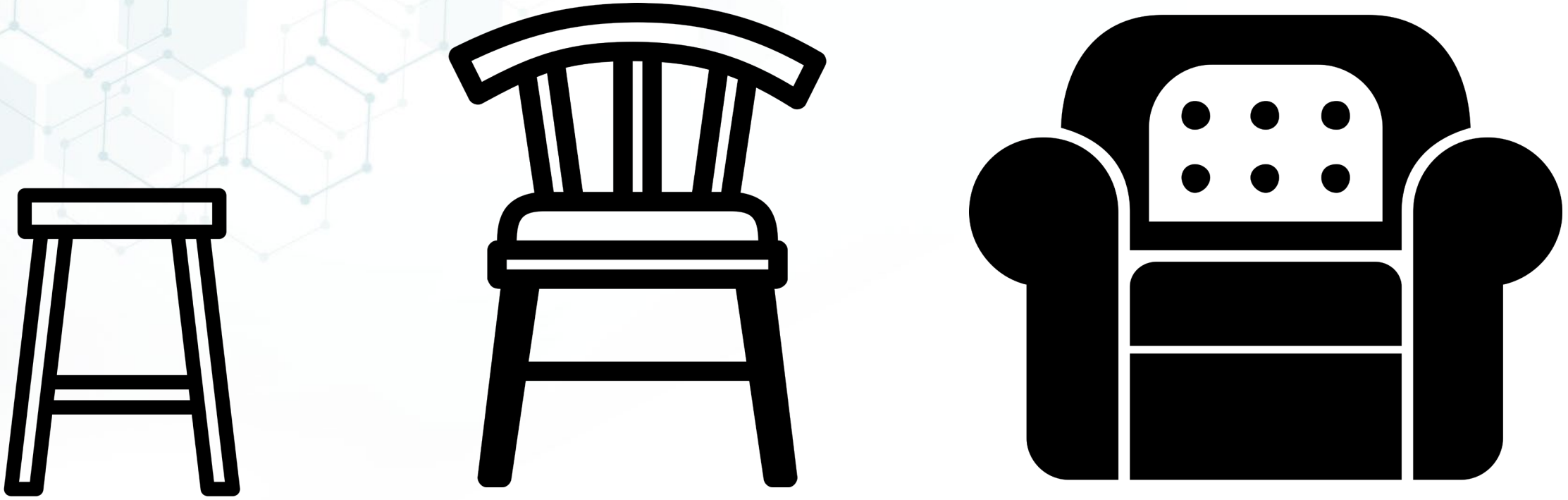
Benefits

- Free software
- Flexibility
- Reliability
- Longevity
- Security

Challenges

- Time and resources needed to adapt maintain if you create enterprise system
- Help desk and tech support not included
- Security

Create minimum viable product (MVP), then refine it



Communicate clearly and often

- Robust project plan with target dates for tasks and milestones
- Recurring working sessions with LMS developers
- Live meetings with IT staff and approvers
- Periodic demos to broader internal team
- Updates to target audience on anticipated launch
- Actively seek out and consider feedback along the way

Coming Soon!

Network members will receive an email alert when the launch date is set

To join OneLab Network, visit www.cdc.gov/onelab

Recap: Lessons Learned

- Establish criteria before exploring software options
- Decide whether open-source software is a good fit
- Focus on creating a “minimal viable product” while documenting future refinements
- Communicate clearly and often – not only with LMS developers, IT staff, and approvers but also with broader internal team and your target audience

Q&A

Thank you!

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

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