SUSTAINING YOUR OPEN SOURCE PROJECT THROUGH TRAINING

A Hydra case study

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The Problem Space

- Rapidly growing project
- Quickly evolving technology
- Open source
- Volunteer staffing
- Geographically distributed
- Minimal centralized organization
- New functionality over documentation
- New adopters confused and frustrated
- $0 funding to develop training materials

... Sound Familiar?

Our Training Needs

- Multiple Goals
  - On-board new developers
  - Keep community up-to-date on new developments
  - Inform potential adopters
- Multiple Audiences
  - Developers
  - Implementation / Systems Support
  - Planners & Managers
- Multiple Delivery Venues
  - Dedicated Training Events – Hydra Camp
  - Custom Training – Institutional Bootstrap
  - Conference workshops – OR, C4L, DLF, etc.
  - Individual on-demand – remote folks without travel funding

The Proposed Solution

- Learn from and leverage other projects

- Modular training

- Synchronize documentation and training needs

- Expand Ownership

- Kaizen & Agile – keep making small improvements

Leverage Other Projects

- RailsBridge: A community supported training model

  - Designed to support participants *& instructors*
  - Solid educational scaffolding
    - Goals
    - Steps
    - Explanation
  - Values and encourages new participants!

Learn from RailsBridge - Content

Learn from RailsBridge - Structure
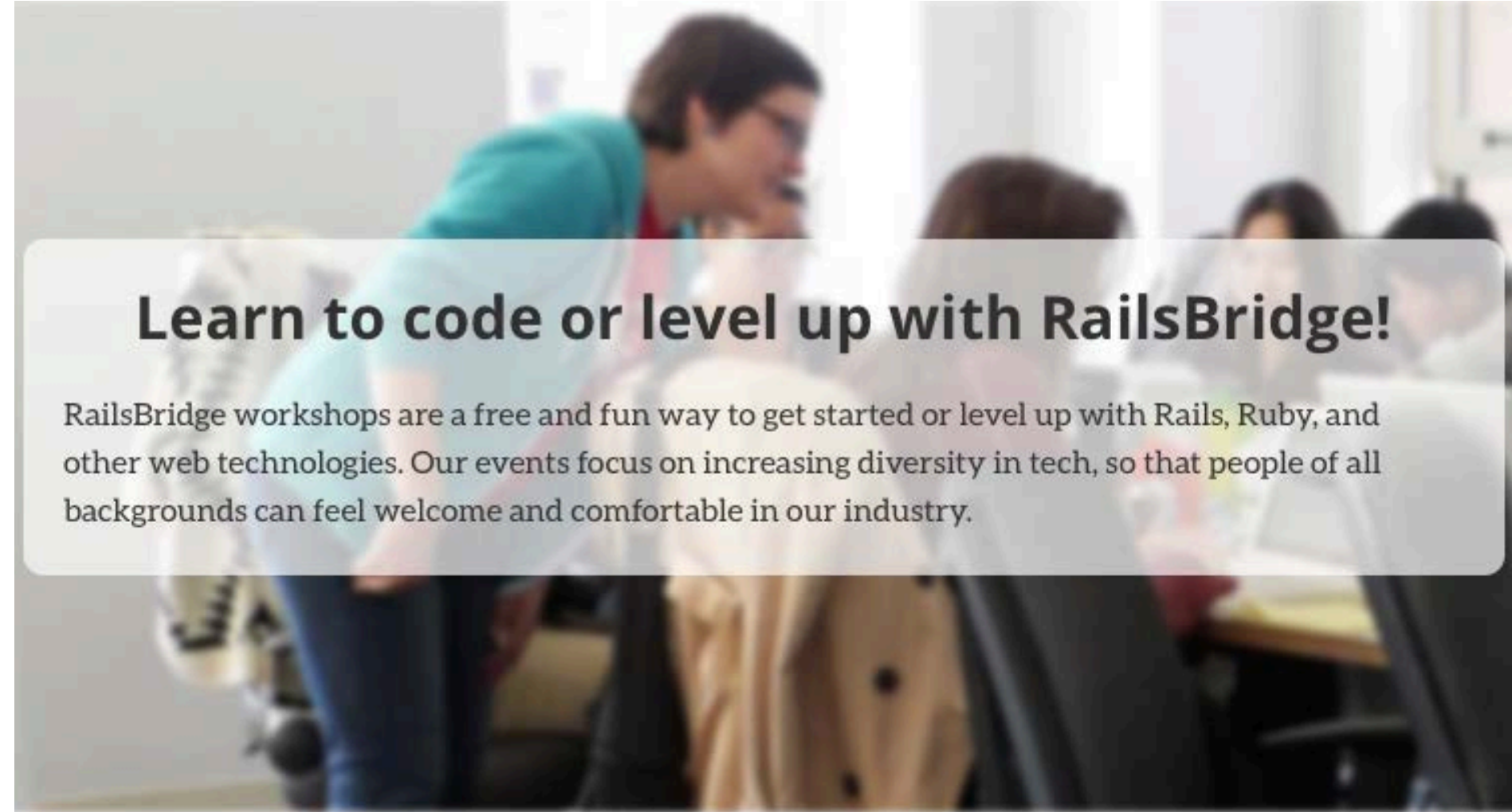
Learn from RailsBridge - Mission

Learn to code or level up with RailsBridge!

RailsBridge workshops are a free and fun way to get started or level up with Rails, Ruby, and other web technologies. Our events focus on increasing diversity in tech, so that people of all backgrounds can feel welcome and comfortable in our industry.

http://railsbridge.org

Modular Structure

Hydra Camp Overview

	Tuesday	Wednesday	Thursday	Friday
Morning	**Intro to Rails** (Railsbridge) Also @ C4L	**Github & Collaborative Development** *No module yet*	**Hydra Architectural Framework** *No module yet*	**Developer Tools & TDD** *Module in development*
Afternoon	**Dive into Hydra** (module) @ OR, HC, C4L	**Metadata Management** (XML & RDF modules) @ OR, C4L, HC	**Blacklight & Solr** (use their modules) @ C4L	**Q&A & Student Topics** *No module planned*

Modular Structure – Dive Into Hydra

Goals

- Create a Hydra Head
- Run Fedora and Solr underneath the Hydra Head
- Start & Stop the Application
- Start & Stop Fedora and Solr
- Define Models for Content to put into your Hydra Head (in this case Books and Pages)
- Use your Models to Create objects in Fedora and Solr
- See where content is persisted in Fedora and indexed in Solr
- Modify how metadata is indexed in Solr
- Use Git to Track Code Changes

Steps/Lessons

1. Lesson: Generate a Rails Application
2. Lesson: Add the Hydra Dependencies
3. Lesson: Install hydra-jetty
4. Lesson: Start the Application & Search for Results
5. Lesson: Build a Book Model
6. Lesson: Make Blacklight Return Search Results

Modular Structure – Modules to Date

- Hydra Managed Modules - Active
  - Dive Into Hydra – Introductory Module
  - Tame your XML with OM – XML Metadata Management
  - Access Controls – User Management and Gated Discovery

- Third-Party Modules
  - Intro to Rails – RailsBridge & Code School
  - Blacklight Quickstart – Project Blacklight
  - Solr Tutorial – Apache Project

Modular Structure – In Development

- Hydra Managed Modules – In development
  - Tame your RDF with ActiveFedora
    – RDF Metadata Management

  - Hydra for Managers
    – Planning and Implementing Hydra from an institutional perspective

  - DevOps and Hydra
    – Configuration and System Management

  - MODSBridge
    – Improve metadata management through testing & agile practices!

Synchronization with Training events

Benefits

- Presentations & Workshops = Deadlines!
- Fear of looking silly in front peers is a great motivator
- Pre-defined modules make the problem space much smaller

Schedule

- Hydra Camp – Spring & Fall
 – Full review
- Conferences – Code4Lib, Open Repositories, DLF Forum
– Specific modules reviewed

Expand Training Ownership

- Invite Community Members to Generate Content
  - RDF and Managers Workshops
  - Use public WIKIs

- Invite Community Members to Present, Co-Present, and TA
  - Conferences – EG. Monday workshops at OR2014
  - Hydra Camps

- Hire Community Members to Co-Lead
  - Hydra Camps – Paid travel and honorarium for Co-leaders when possible

Invite Contributions

- https://github.com/projecthydra/hydra/wiki/Dive-into-Hydra

Train the Trainers

WHY?

- More advocates for the project

- More hands to bootstrap new adopters

- Replacements for attrition among current trainers

- Broader sense of ownership of the project

EQUALS

- Project Sustainability

- Project Growth

Kaizen

… a daily process, the purpose of which goes beyond simple productivity improvement. It is also a process that, when done correctly, humanizes [work]…, and teaches people how to perform experiments on their work using the scientific method…

http://en.wikipedia.org/wiki/Kaizen

Gather Feedback
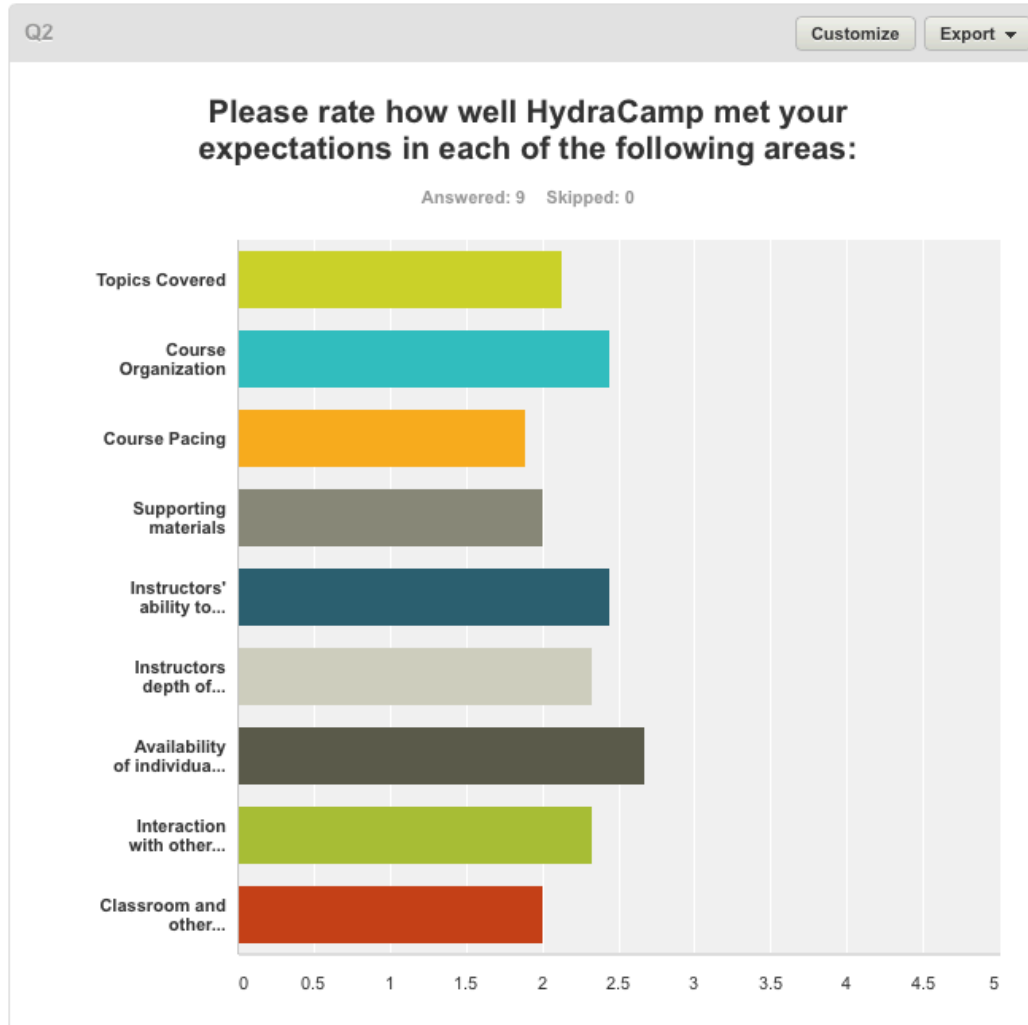
Then

The Wild West

- Multiple (conflicting) pages of documentation

- Software one to two releases ahead of documentation

- Quality of information and consistency of format varies widely

- Only one community trainer

& Now

Still room for improvement, but…

•Fewer pages of documentation to maintain

•Training updates 1-2 times / year

•Higher consistency of materials

•Multiple community members prepared to deliver materials

We'd love to continue the conversation…

- What open source & technical library training do you need?
- What is your project doing that we could learn from?

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