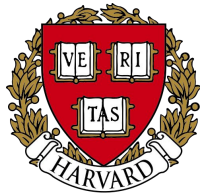


BOF2805: How to Run a Successful Open Source Java EE Project

Philip Durbin and Stephen Kraffmiller
@philipdurbin @sekmiller



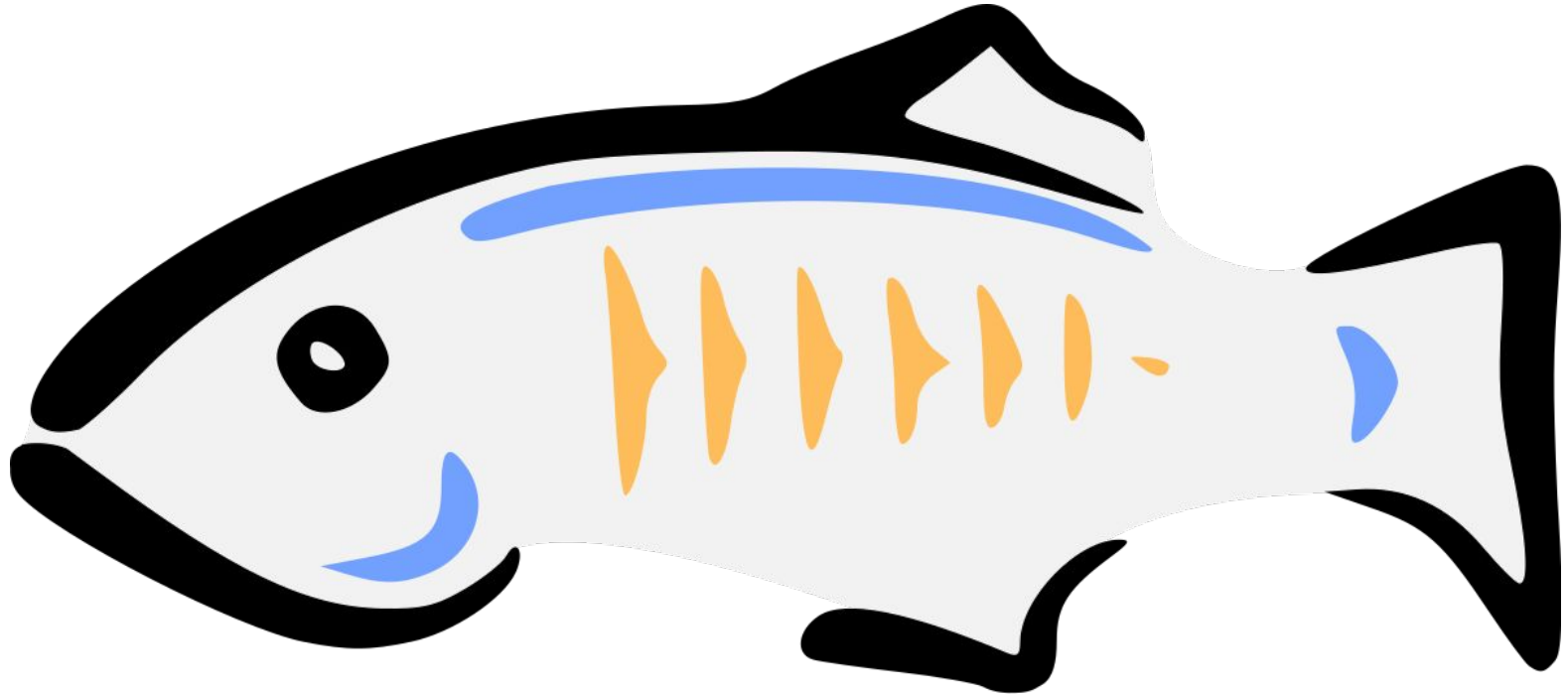
Run

```
c35eb8c skraffm... @RequiredPermissions(Permission.PublishDataset)
c35eb8c skraffm... public class ReturnDatasetToAuthorCommand extends AbstractCommand<Dataset> {
d447458 philip_...
c35eb8c skraffm...     private final Dataset theDataset;
872dc56 skraffm...     private final String comment;
d447458 philip_...
☐ eb5d93e skraffm...     public ReturnDatasetToAuthorCommand(DataverseRequest aRequest, Dataset ar
c35eb8c skraffm...         super(aRequest, anAffectedDvObject);
eb5d93e skraffm...         this.theDataset = anAffectedDvObject;
872dc56 skraffm...         this.comment = comment;
c35eb8c skraffm...     }
c35eb8c skraffm...
```

Successful



Java EE Project



Agenda

build the right thing

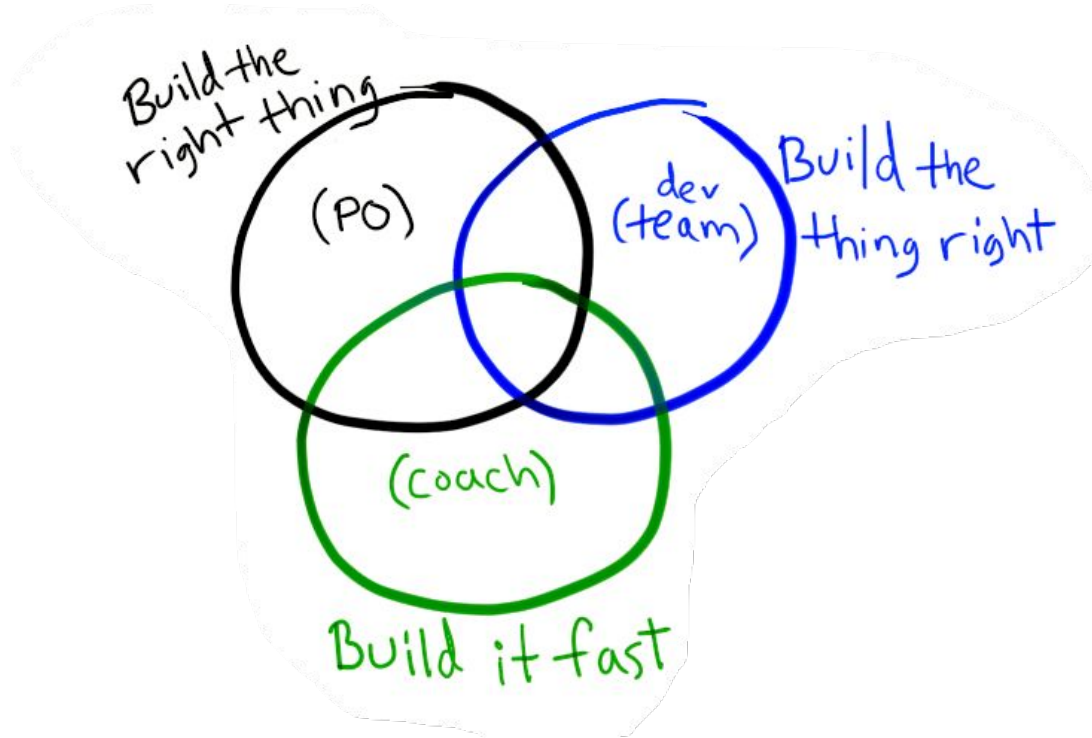
presenting your project to the world

culture

encouraging contribution

challenges

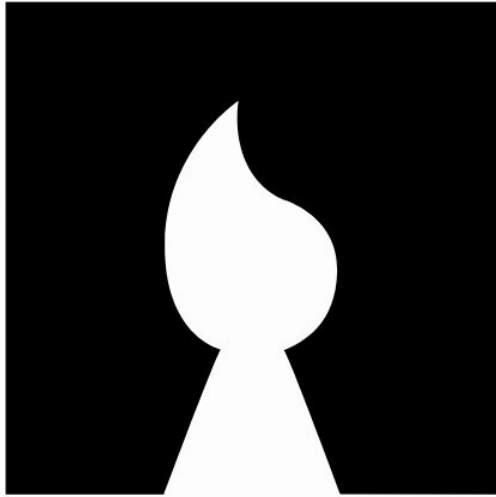
Built the right thing



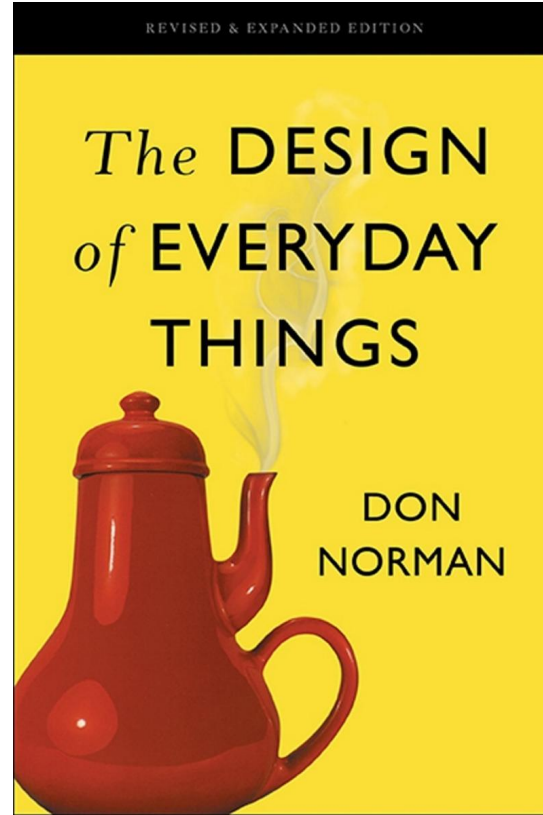
Agile Product Ownership in a Nutshell

by Henrik Kniberg

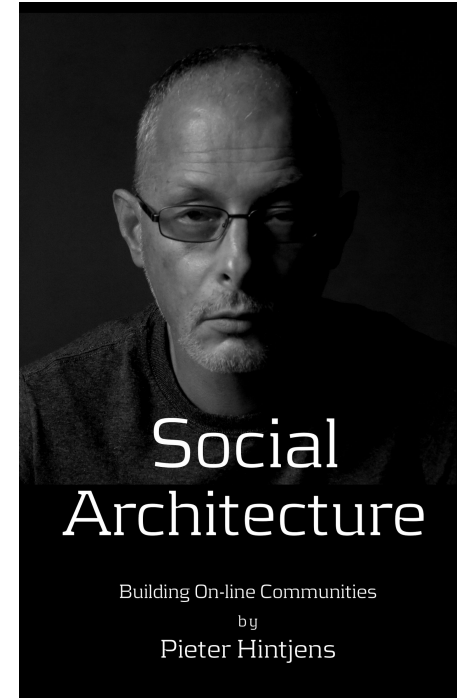
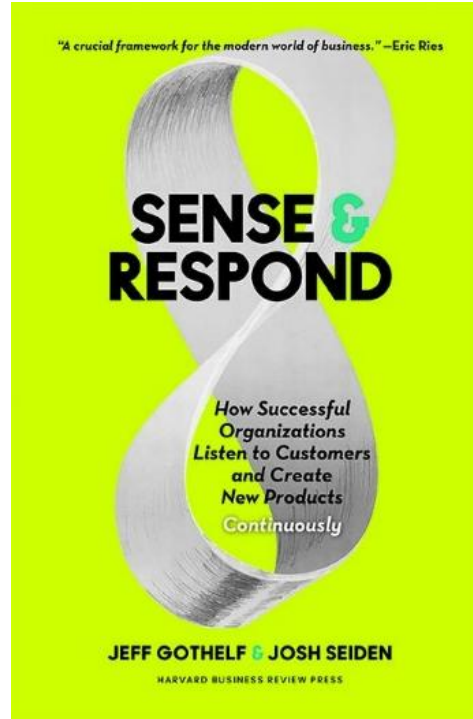
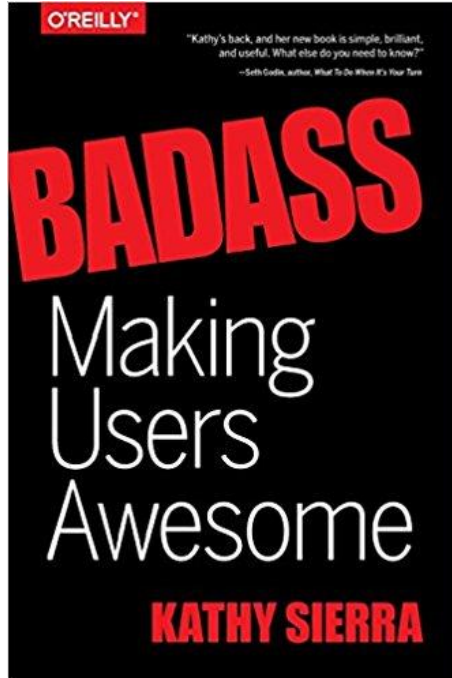
User experience (UX)



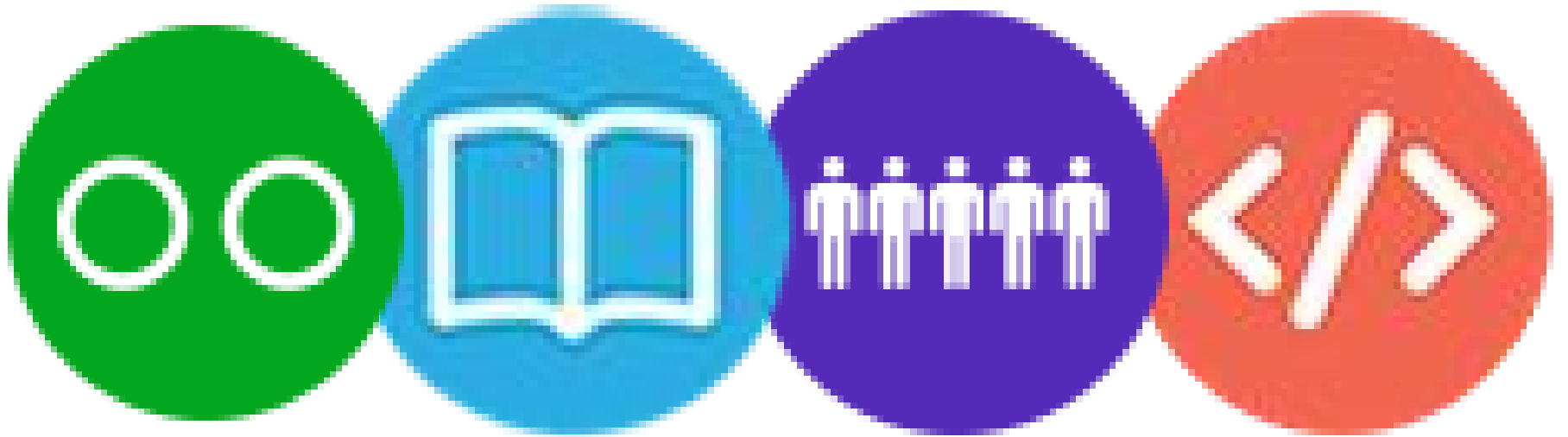
Open Source Design



Make your users awesome, feel their pain



Project website



I'm not dead

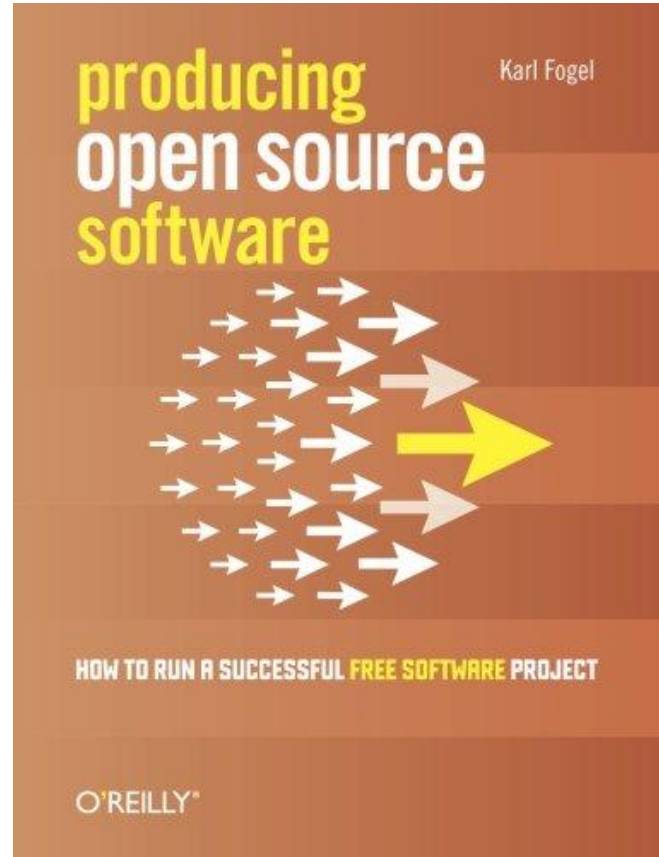


Issue tracker

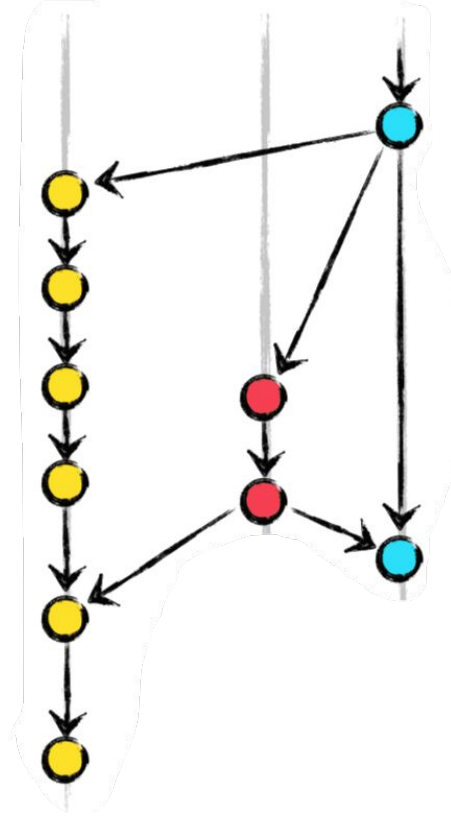
 [IQSS / dataverse](#)

[Code](#)

[Issues](#) **699**



Commits



Does the project care about security?



Support

I need
general
support.

IQSS Administrative Support provides grant, human resource, financial and event planning support.
You do the research, we'll do everything else.



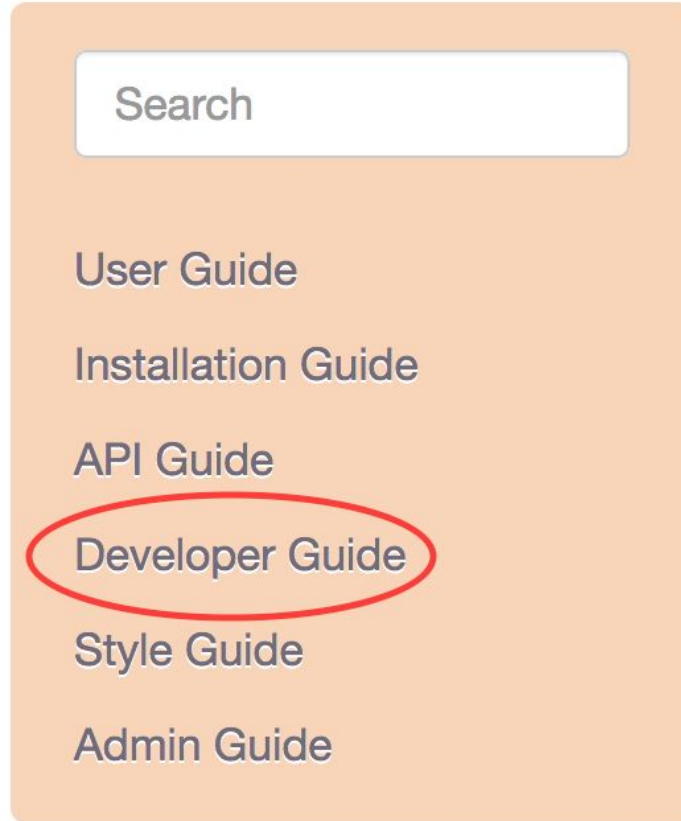
Documentation



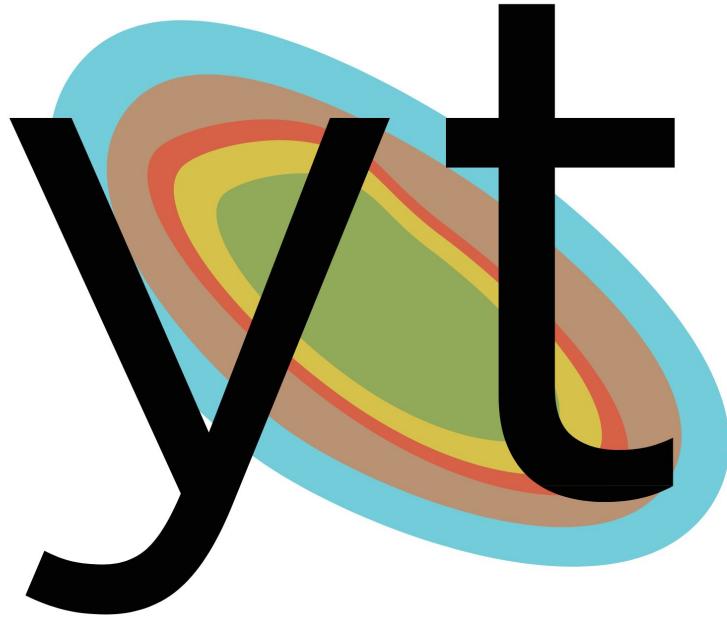
Executable Documentation



Developer Guide



Design the community you want



Listening



Transparency



Strategic Goals



Public Communication Channels

#myproject

Reality



Transparency in dev process

🔗 #5972 passed

🕒 2 min 38 sec

🔗 2953fd5 [↗](#)

📅 27 a day ago

🔗 #5971 failed

🕒 2 min 28 sec

🔗 49822e6 [↗](#)

📅 27 a day ago

🔗 #5970 passed

🕒 3 min 32 sec

🔗 b3dde1f [↗](#)

📅 27 2 days ago

Encouraging contribution



Quincy Larson

@ossia

Follow

When you're excited to contribute to an open source project, but then you start looking at the code



534 Retweets 1,173 Likes

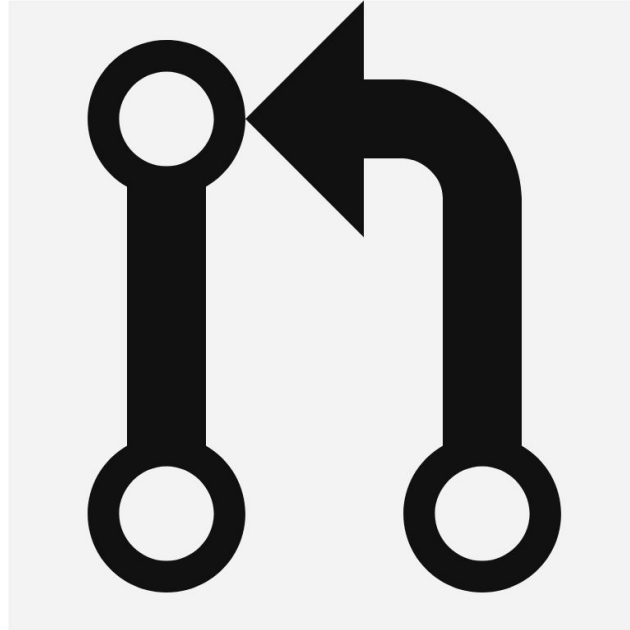


20 534 1.2K

Attention, not just code



Everybody makes pull requests



Case Study

Adding Persistent Identifier Services to Dataverse

The screenshot displays the Dataverse web interface. At the top left is the Dataverse logo. The top navigation bar includes a search icon, links for 'User Guide', 'Support', and 'Dashboard', and a user profile for 'Dataverse Admin' with a notification badge showing '44'. Below the navigation bar, the breadcrumb path reads 'Root > Birds and Trees of the Western Hemisphere > Darwin's Finches'. A metrics bar shows 'Metrics' and '0 Downloads'. Action buttons for 'Contact', 'Share', 'Link', and 'Edit' are visible. The dataset title is 'Darwin's Finches' with a 'Version 1.0' badge. The dataset description is 'Finch, Fiona, 2017, "Darwin's Finches", doi:10.5072/FK2/X5NGN4, Root, V1'. A 'Cite Dataset' button and a link to 'Learn about Data Citation Standards' are also present. The 'Description' section contains the text: 'Darwin's finches (also known as the Galápagos finches) are a group of about fifteen species of passerine birds.' The 'Subject' section contains the text: 'Medicine, Health and Life Sciences'.

Birds and Trees of the Western Hemisphere

Root > Birds and Trees of the Western Hemisphere > **Darwin's Finches**

Metrics 0 Downloads

Contact Share Link Edit

Darwin's Finches Version 1.0

Finch, Fiona, 2017, "Darwin's Finches", doi:10.5072/FK2/X5NGN4, Root, V1

Cite Dataset

Learn about Data Citation Standards.

Description Darwin's finches (also known as the Galápagos finches) are a group of about fifteen species of passerine birds.

Subject Medicine, Health and Life Sciences

Identifier Service Provider

UNIVERSITY OF CALIFORNIA **EZID** *Identifiers made easy*

SEARCH LEARN CONTACT

WELCOME

DASHBOARD | MANAGE_IDS | CREATE ID | ACCOUNT

Identifier Details

ABOUT THE IDENTIFIER

Identifier: * doi:10.5072/FK2/XSNGN4

Identifier as URL:

* Indicates demo identifier. Demo IDs are deleted two weeks after creation and are for testing purposes.

Citation Preview

Finch, Fiona (Birds Inc.) (2017): Darwin's Finches. Root. Dataset. <https://doi.org/10.5072/FK2/XSNGN4>

ABOUT THE IDENTIFIED OBJECT

Location (URL): <http://localhost:8080/citation?persistentId=doi:10.5072/FK2/XSNGN4>

Creator: Finch, Fiona (Birds Inc.)

Title: Darwin's Finches

Publisher: Root

Publication year: 2017

Resource type: Dataset

Lessons Learned

- Set Expectations
- Give Developers a well-defined framework
- Try not to leave them hanging
- Pre-review, if possible
- Be open to improvements regardless of source

The hard stuff



Discuss



Continuing the conversation

<http://wiki.greptilian.com/talks/2017>

<https://dataverse.org/presentations>

How to Run a Successful Open Source Java EE Project

Philip Durbin and Stephen Kraffmiller

JavaOne 2017

Running an open source Java EE project can bring unique challenges for project managers and developers. Dataverse, an open source research data repository platform, developed in an academic environment, has attracted interest from a growing number of developers who need to be brought up to speed with technologies such as JSF and CDI. Sysadmins in higher education have little to no experience with GlassFish. The Dataverse team at Harvard has over 10 years of experience promoting and supporting the use of Java EE. This talk will cover community building, sysadmin support, automating installations, writing effective documentation, streamlining open source contributions, juggling communication channels, balancing priorities and more.

- Thanks for coming!
- Introduce Phil, Steve, Dataverse, IQSS, Harvard
- Title of the talk... let's break this down.

-
- Definitions
 - [2] Run
 - We're just developers.
 - Bottom up, public discussion
 - Influence
 - [3] Successful
 - 10 years of steady growth.
 - More people sharing research data
 - More installation of Dataverse (26)
 - dataverse.nl, dataverse.no
 - integrations
 - contribute code
 - [4] Java EE project
 - Requires full profile
-

- [5] Agenda
 - build the right thing
 - presenting your project to the world
 - culture
 - encouraging contribution
 - challenges
-

- [6] Build the right thing
 - I hear that you want to build the thing right but we need to build the right thing.
 - Agile Product Ownership in a Nutshell - (<https://www.youtube.com/watch?v=502ILHjX9EE>)
 - [7] User experience (UX)
 - We did a rewrite.
 - Care about the user experience
 - Open Source Design from FOSDEM
 - IT Academy
 - [8] Make users Badass (Kathy Sierra). Sense and Respond
 - Make your users better at their job, in our case, researchers
 - Sense and Respond
 - QUOTE: "A good designer sympathizes with his users, feels their pain, and works to relieve it." --Pieter Hintjens in Social Architecture

-
- [9] Presenting your project to the world
 - Recap: build the right thing, care about users
 - Project website
 - What does it do?
 - list of features.
 - Different features for researchers vs. curators.
 - What will it do?
 - For potential users
 - What's the roadmap?
 - What direction is the project taking?
 - For existing users...
 - What's coming in the next release?
 - What's in the current sprint?
 - Can I influence what it does?
 - How do I make feature requests?
 - Will bugs I find be fixed?
 - Are they open to contributions?
 - Who is using this thing?
 - Opt-in customer list.

-
- [10] I'm not dead.
 - What are the signs of life?
 - [11] Issue tracker
 - QUOTE: "the higher the number of bugs in the database, the better the project looks" -- Karl Fogel in Producing Open Source Software
 - Under a section on evaluating open source projects...
 - QUOTE: "Look at bug tracker activity first."
 - QUOTE: "The important question is not rate of resolution, but how the project responds to and organizes the influx of reports."
 - 699 = #1: Open Source at Harvard (<https://github.com/IQSS/open-source-at-harvard>)
 - [12] Commits
 - QUOTE: "Whether or not a project met its most recent milestone is sometimes not as interesting as the more fundamental question of whether it has an active community of developers around it."
 - [13] Does the project care about security?
 - GitHub survey on security and stability (<http://opensourcesurvey.org/2017/>)
 - User experience a distant third.
 - What are you saying to the world about security?
 - Support is last. Or is it?
 - [14] Will I get any support?
 - How much support are you offering?
 - API client libraries supported by the community.
 - Paid support?

-
- [15] Documentation
 - Margaret Hamilton and her Apollo code
 - GitHub survey, 93 percent of people reported being frustrated with incomplete or confusing documentation.
 - Article in The Next Web by Matthew Hughes with the title
 - QUOTE: "Free software is suffering because coders don't know how to write documentation" (<https://thenextweb.com/dd/2017/06/02/free-software-is-suffering-because-coders-dont-know-how-to-write-documentation/>).
 - There's an article by Jeff Atwood of Stackoverflow fame entitled,
 - QUOTE: "If it isn't documented, it doesn't exist" (<https://blog.codinghorror.com/if-it-isnt-documented-it-doesnt-exist/>).
 - Hire someone
 - [16] Executable documentation.
 - vagrant up
 - API tests
 - [17] 6 Guides, User, Installation, Administration, API, Dev, Style

-
- [18] Core values/principles/culture
 - Recap: build the right thing, care about your users, present your project to the world, documentation
 - This is a quote from Matthew Turk in paper called "How to Scale a Code in the Human Dimension"
 - QUOTE: "You must design the community you want. This design extends far beyond designing software and algorithms; it includes thinking about the diversity of contributors and community members, the tone of discourse within the community, the projected enthusiasm within the project, and even the congeniality with which feedback -- especially critical feedback -- is received."
 - Listening and transparency

-
- [19] Listening
 - 3rd annual meeting
 - everyone welcome next year! free!
 - high bandwidth
 - A year and a half of literally listening to people on community calls
 - Take notes!
 - usability testing
 - travel all over the world
 - nuggets
 - [20] Transparency
 - Exciting or scary?
 - QUOTE: "Engineers' work is visible to the public, and the public will contribute and comment on the work, and we're looking for engineers for whom that sounds exciting rather than scary." -- Ned Batchelder talking about edX (<https://www.youtube.com/watch?v=niUOnjvG9QA>).
 - [21] Strategic goals
 - Strategic goals on the roadmap.
 - Mission. Pieter Hintjens in Social Architecture. ZeroMQ vs. Nano
 - [22] Public communication
 - Channels
 - GitHub issues
 - Low friction
 - Pieter Hinjens argues to use popular one
 - Bi weekly community call
 - Take notes
 - Google Group with public archives
 - IRC with public logs
 - Jeff Atwood: Maximize the value of your keystrokes (<https://blog.codinghorror.com/maximizing-the-value-of-your-keystrokes/>)
 - Karl Fogel agrees. Do your work in the open.
 - [23] Hope: happy stakeholders
 - [24] Reality: everyone's busy
 - [25] Transparency in development
 - Default to open. Show code coverage with Travis rather than internal Jenkins.
 - Red code coverage on README
 - Dataverse case study for open org case (<https://github.com/open-organization-ambassadors/open-org-workbook/issues/6>)

-
- [26] Encouraging contributors
 - Parrot and cat
 - QUOTE: "When you're excited to contribute to an open source project, but then you start looking at the code" -
<https://twitter.com/ossia/status/901794511487152129>
 - Friendly
 - QUOTE "Fill in the blank ..." _____ is an #opensource project notably friendly to new contributors."?" -
<https://twitter.com/vmbrasseur/status/845782919176056832>
 - [27] Attention
 - QUOTE: "The true currency of open source projects is attention: people who can see that they are getting attention will keep participating, even if not every patch they submit lands." -- Karl Fogel
 - Not just code
 - new "Help Wanted: Code" label for GitHub issues:
https://groups.google.com/d/msg/dataverse-community/nMdEGUCOyzE/RtOG3a_HAQAj
 - Docs as a gateway toward making pull requests.
 - Types
 - Ideas (feature requests)
 - Why wasn't I consulted by Paul Ford (
<http://www.ftrain.com/wwic.html>)
 - Usability testing
 - Bug reports
 - Documentation
 - Track what the community is working on and check in from time to time.
 - Assign issues
 - Primary contact on "dev efforts"
 - [28] Everyone makes pull requests (same process for internal and external)
 - Getting away from the "we all commit to trunk" mentality from SVN and SourceForge days.
 - Checklist for tests, docs, deployment notes

-
- [29] Case Study: Steve on persistent IDs
 - [30] Identifier Service Provider
 - [31] Lessons Learned
 - Set expectations
 - Give developers a well-defined framework
 - Try not to leave them hanging.
 - Pre-review, if possible.
 - Be open to improvements regardless of source.

-
- [32] The hard stuff
 - Theory vs practice
 - Challenges
 - Roadmap (funding) vs. community needs.
 - Sustainability
 - Comments on GitHub issues, especially closed ones.
 - Sometimes you aren't ready for pull requests, such as an upgrade to SolrCloud.
 - QUOTE: "Every active branch is a slight drain on the community's attention."
 - Managing open source developers
 - "Supervising programmers who spend part or all of their time on open source projects is more complex than supervising programmers on purely internal projects."

-
- [33] Discuss
 - [34] Continuing the conversation
 - <http://wiki.greptilian.com/talks/2017/javaone-how-to-run-an-open-source-project>
 - <https://dataverse.org/presentations>