Research and Academic Software Projects at the Institute for Quantitative Social Science

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The Big Picture

Identify a problem or need in research or academia

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Build a technology solution, easy- to-use, gives control to researcher

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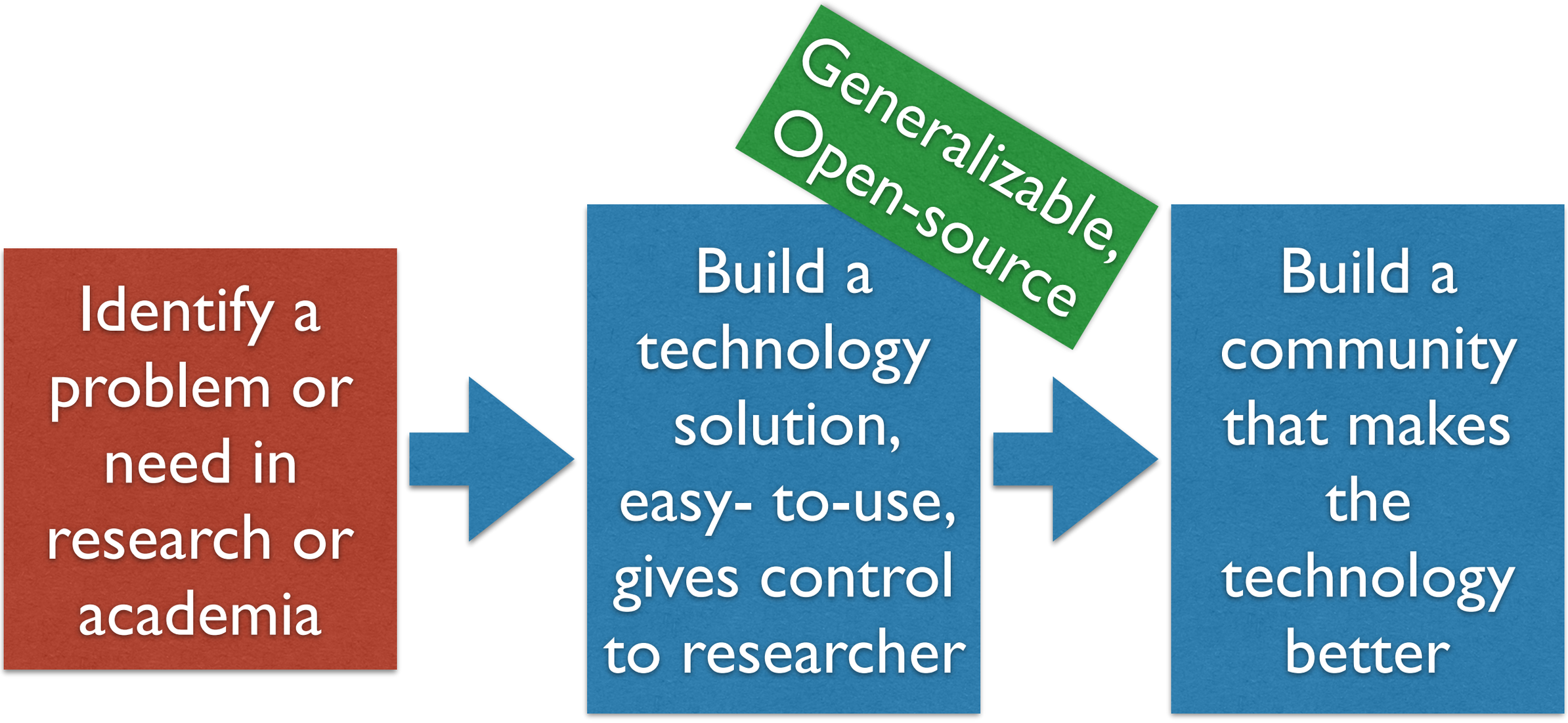
Build a technology solution, easy- to-use, gives control to researcher

Generalizable, Open-source

The Big Picture



Example: Dataverse

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- How do we increase data sharing to improve research transparency and replication with incentives to researchers?

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- Provide a repository solution, where researchers have control of branding and access of their data, and get credit through data citation.

Example: OpenScholar

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- How do we enable scholars to build their academic web sites in a cost effective way?

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- How do we enable scholars to build their academic web sites in a cost effective way?
- Provide a web site builder with pre-set features for academics, where a single hosting serves thousands of sites.

Example: Zelig

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- How do we simplify using thousands of R statistical methods built by different authors?

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- Provide a statistical package that uses the same three commands for all methods, with consistent documentation.

Example: Consilience

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- Provide an application that helps researchers explore many possible ways of categorizing documents.

Dataverse Case Study

The Process

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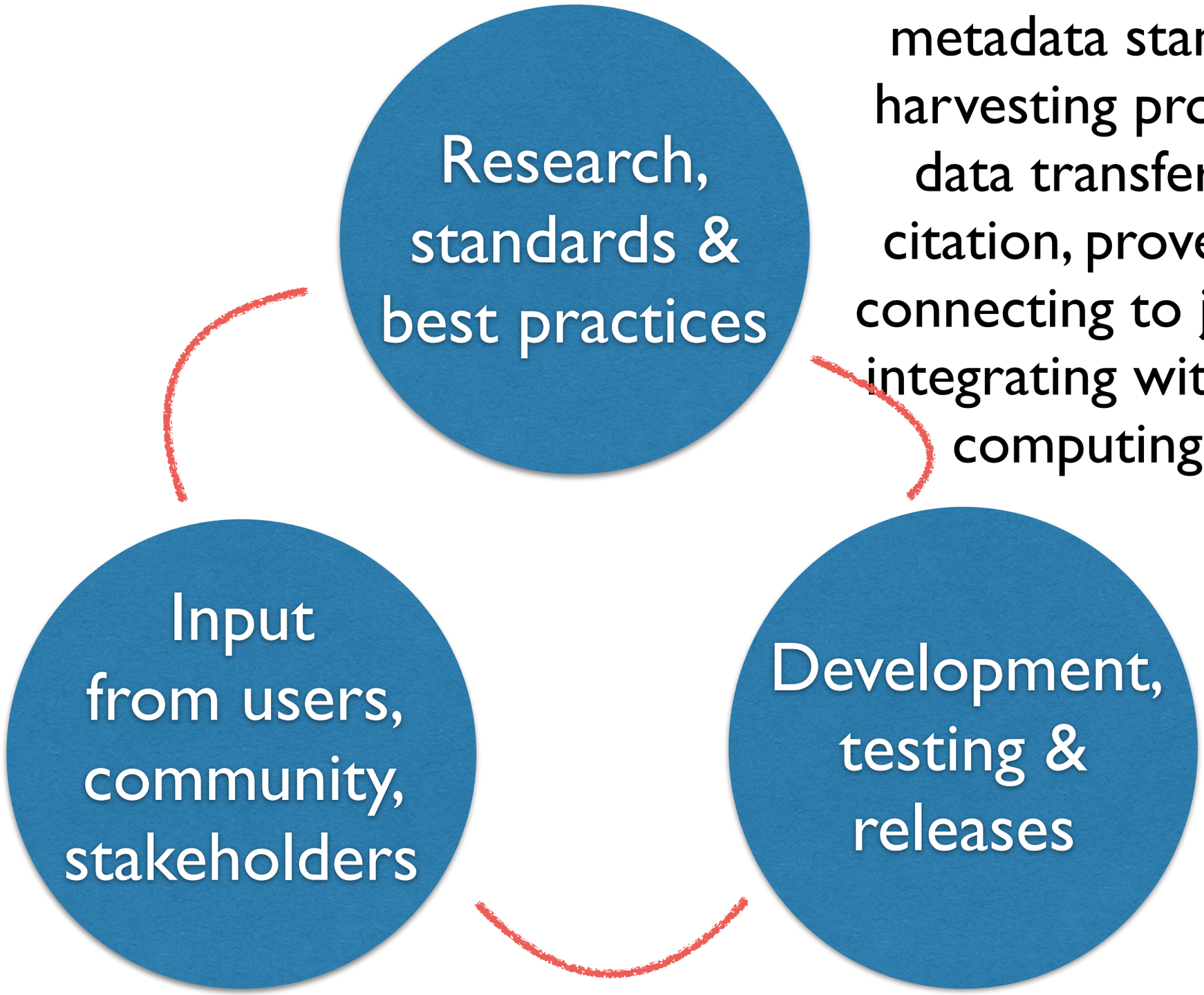


metadata standards, harvesting protocols, data transfer, data citation, provenance, connecting to journals, integrating with cloud computing, ….

Dataverse Case Study

The Process

Research, standards & best practices

metadata standards, harvesting protocols, data transfer, data citation, provenance, connecting to journals, integrating with cloud computing, ….

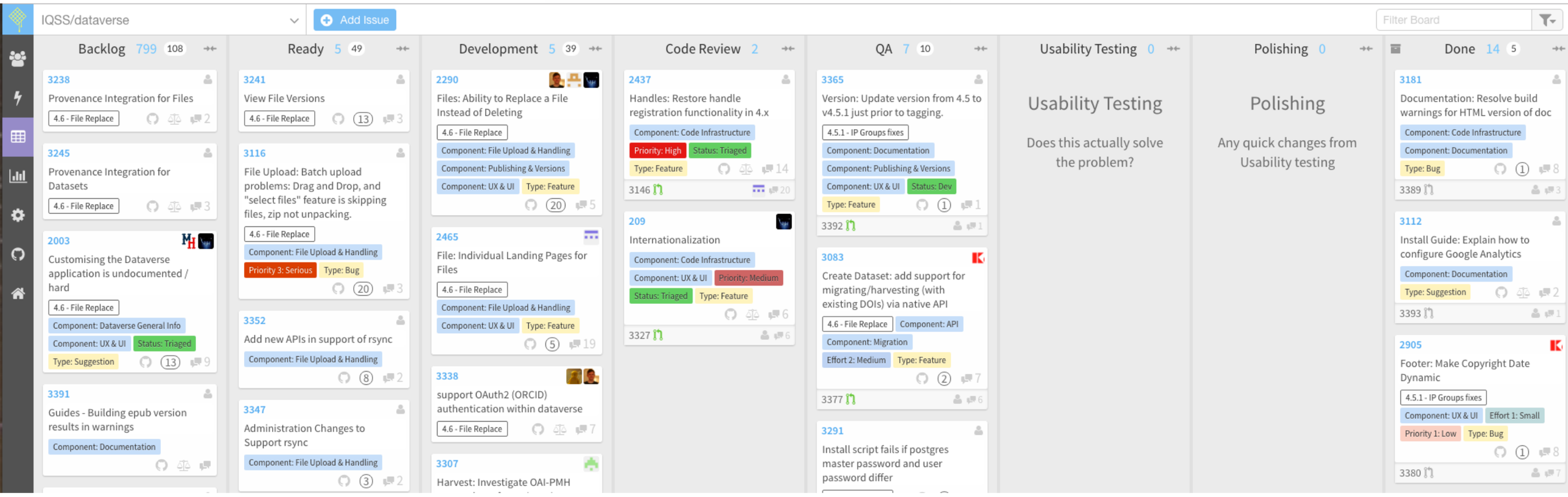
Development, testing & releases

Input from users, community, stakeholders

usability testing, community calls, annual community meeting, pull requests

Dataverse Case Study

The Process Details



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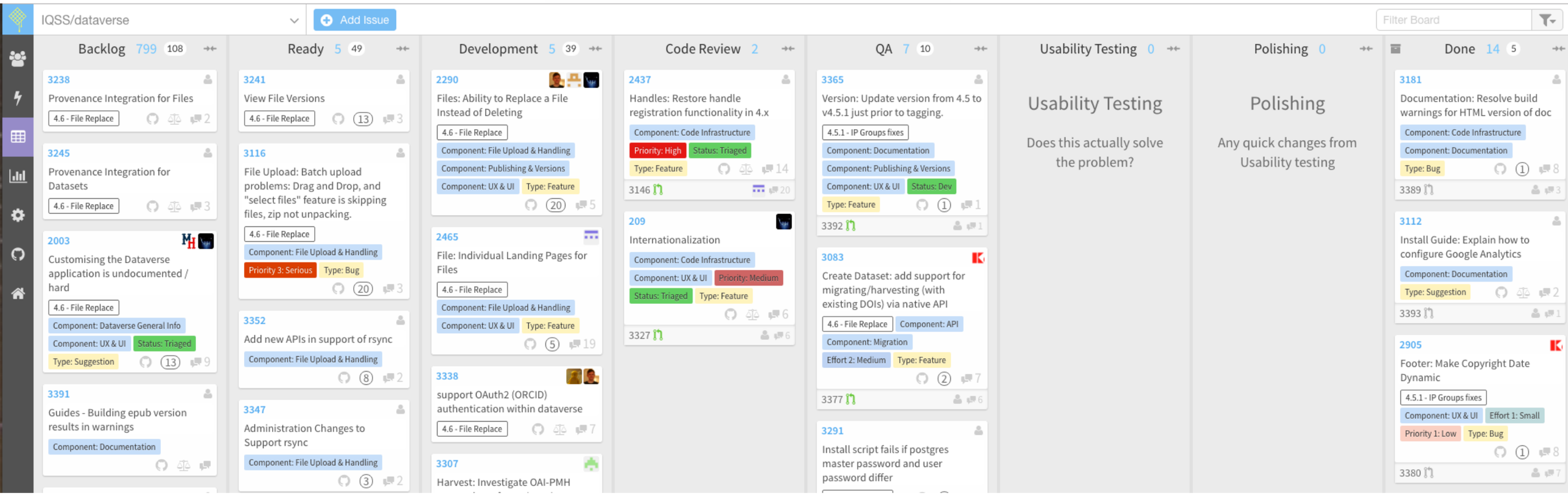

An agile process, integrating Waffle + GitHub + Jenkins, including these steps:

Dataverse Case Study

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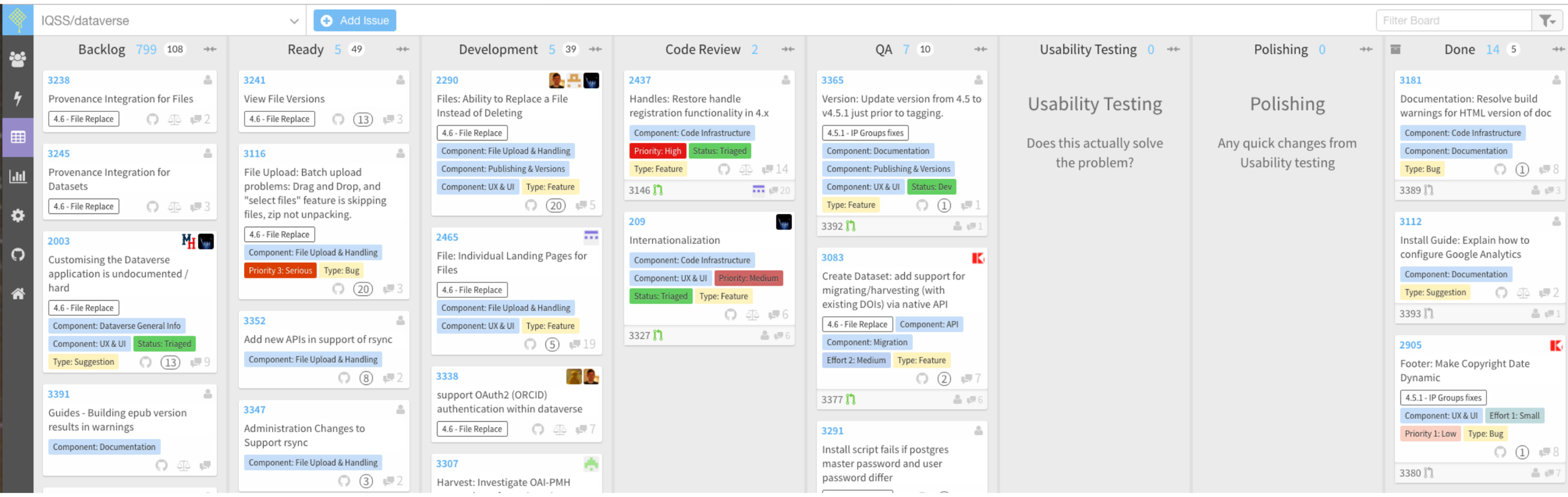

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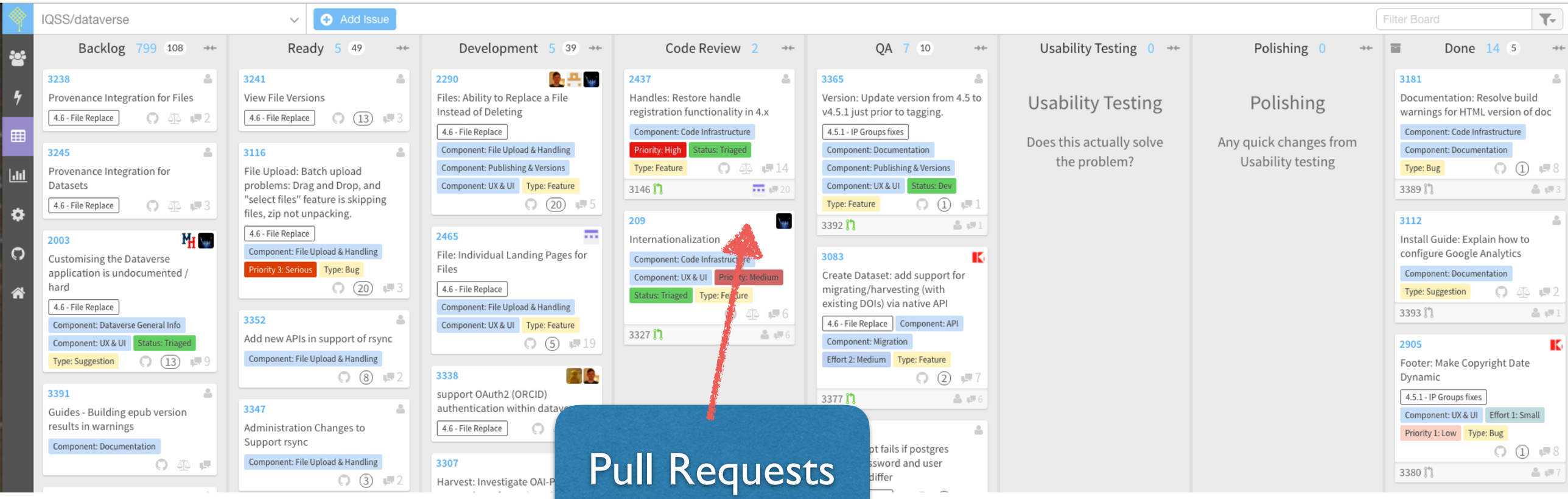
Backlog > Ready > Dev > Code Review > QA > Usability Test > Polishing > Done

Dataverse Case Study

The Process Details

Jenkins



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Not only Best Practices in Process, but also in Coding

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8. Collaborate.

Impact at Harvard

OpenScholar®

6,833 OpenScholar sites created

13,904 Registered users

75,378 Publications posted

24 Academic departments

Impact at Harvard

The Dataverse Project

243 Dataverses from Harvard affiliates

1,226 Datasets by Harvard affiliates as authors

1,427 Registered Harvard users

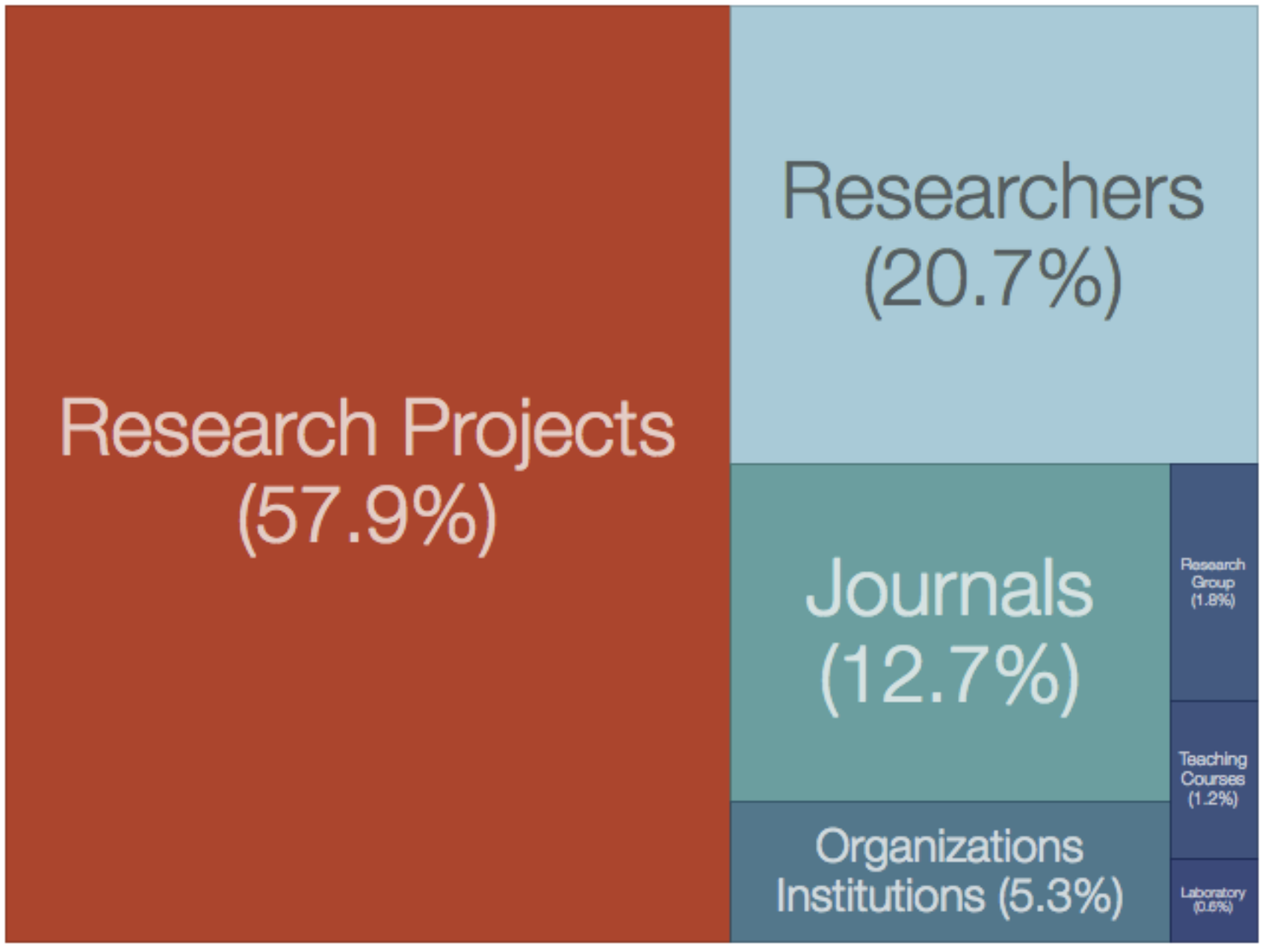
Broader Impact

Dataverse world-wide impact

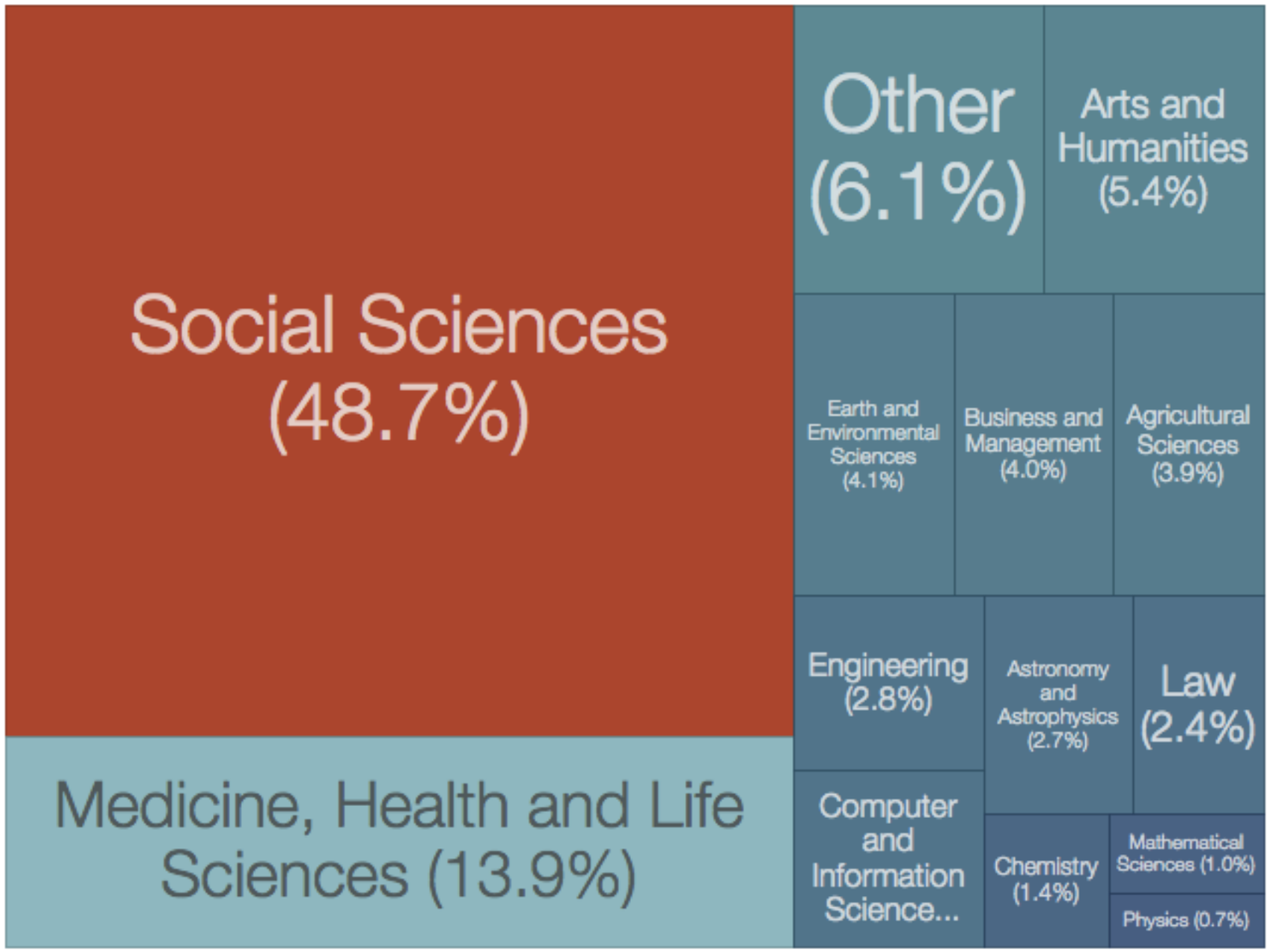
20 Installations | 1,884 Dataverses | 64,149 Datasets | 1,933,476 Downloads

Stats generated: 2nd October 2016 16:13 EDT

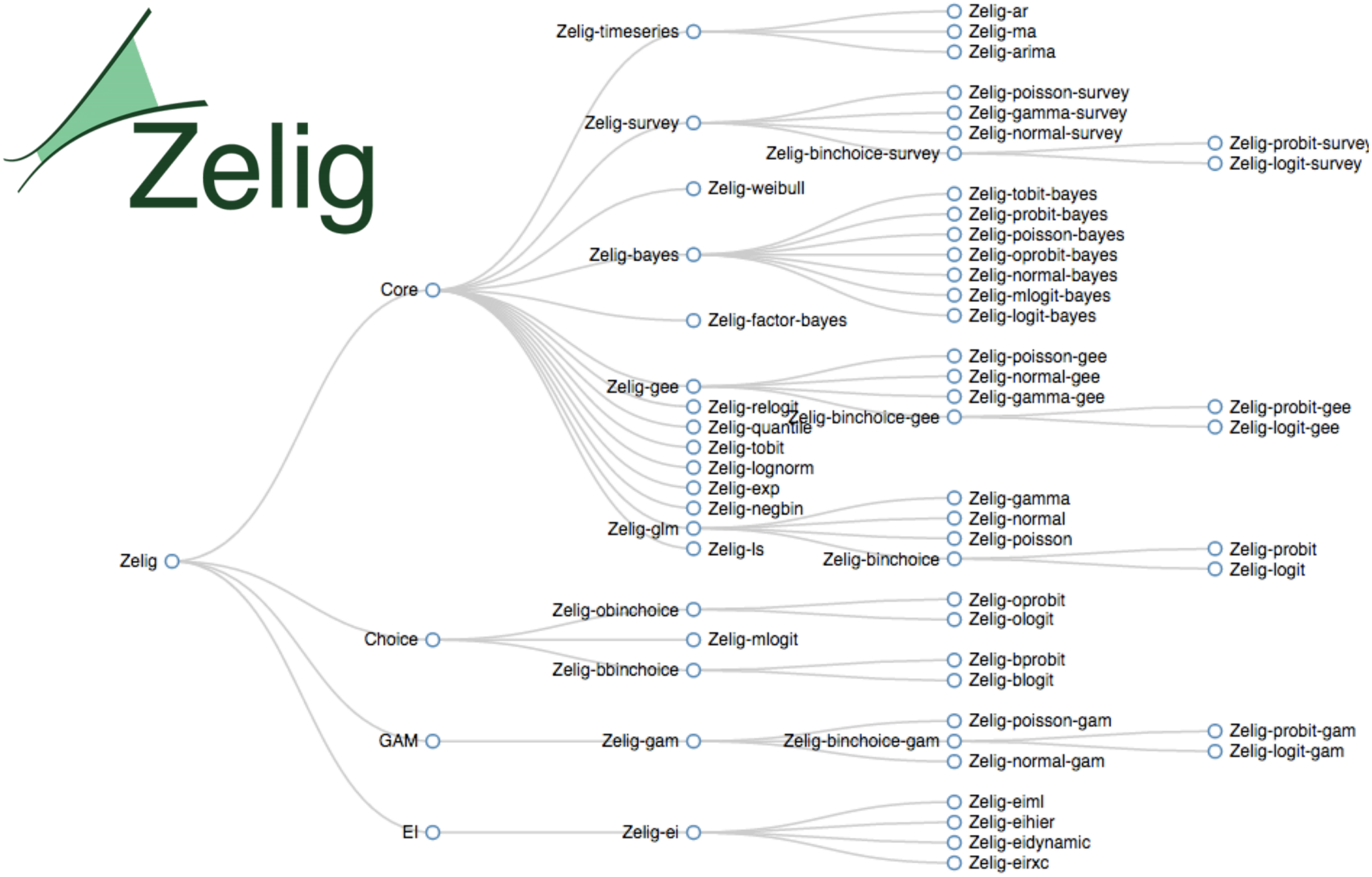
Dataverses by Category



Datasets by Subject



53 Stats Models, easy-to-use



Thank you!

iq.harvard.edu

The Dataverse Project

dataverse.org
dataverse.harvard.edu

Zelig

zeligproject.org

OpenScholar®

openscholar.org
projects.iq.harvard.edu
scholar.harvard.edu

Consilience Beta

Coming soon!

Presented by @mercecrosas mercecrosas.com