

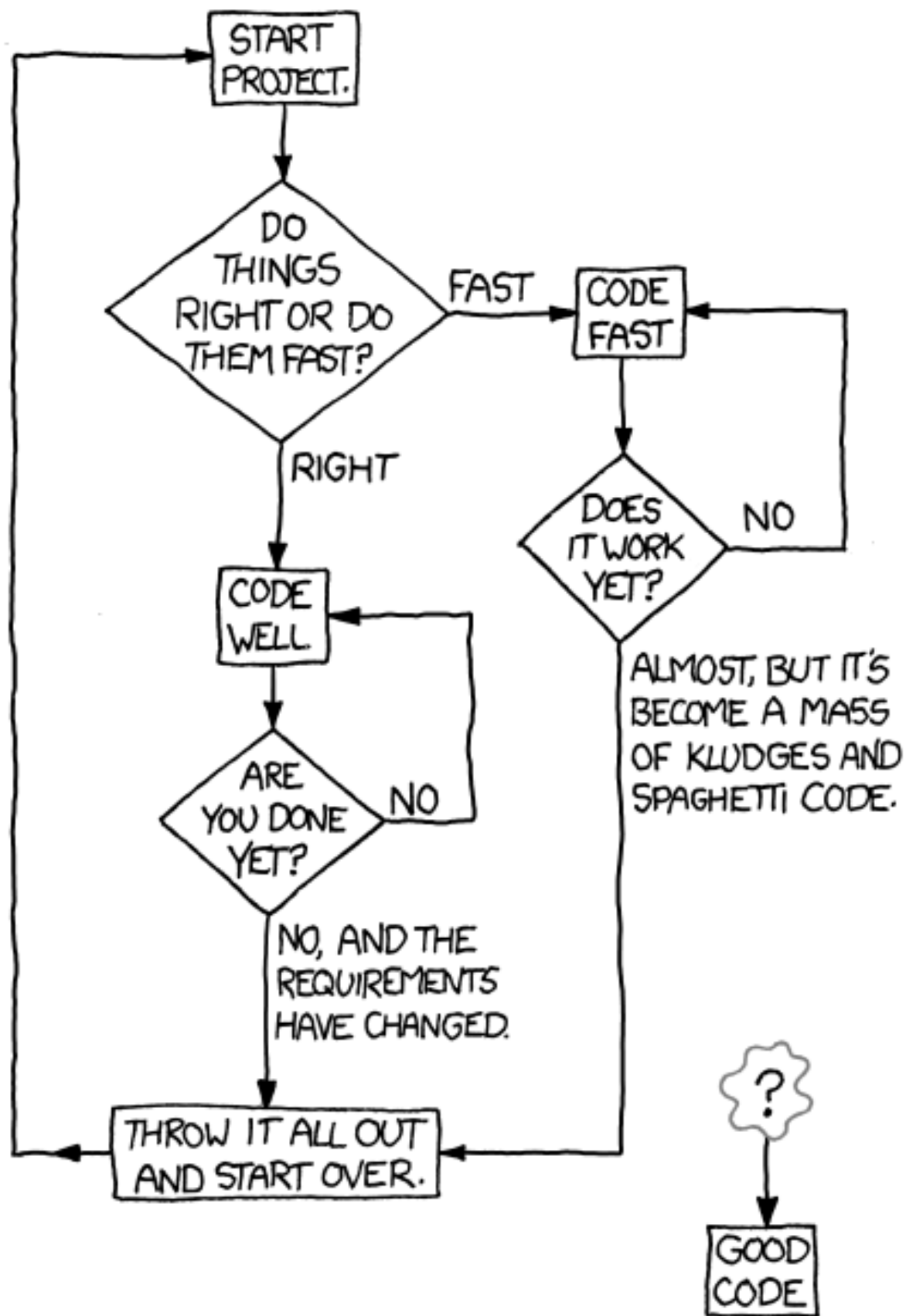


Workflows for assigning and tracking DOIs for scientific software

Martin Fenner, DataCite Technical Director
<http://orcid.org/0000-0003-1419-2405>



HOW TO WRITE GOOD CODE:



...SCIENTISTS AND THEIR SOFTWARE

A survey of nearly 2,000 researchers showed how coding has become an important part of the research toolkit, but it also revealed some potential problems.

> **45%** said scientists spend more time today developing software than five years ago."

> **38%** of scientists spend at least one fifth of their time developing software.

> Only **47%** of scientists have a good understanding of software testing.

> Only **34%** of scientists think that formal training in developing software is important.

Use Version Control

CVS → SVN → git

```
graph LR; CVS --> SVN; SVN --> git;
```


Make Code Public



<https://www.pinterest.com/pin/99149629274877322/>

Do Testing and Code Review

lagotto / lagotto  build failing

Current Branches Build History Pull Requests

More options 

✓ **6-0-unstable** removed obsolete rake tasks

🔗 #2222 passed

🔄 Restart build

 Commit a4baef8

🕒 Ran for 2 min 42 sec

 Compare e51c467..a4baef8

📅 2 months ago

 Branch 6-0-unstable

 Martin Fenner authored and committed

Job log

View config

✕ Remove log

📄 Raw log

▶ 1 Worker information

worker_info

▶ 6 Build system information

system_info

73

▶ 74 \$ export DEBIAN_FRONTEND=noninteractive

fix.CVE-2015-7547

▶ 110 \$ git clone --depth=50 --branch=6-0-unstable

git.checkout

1.03s

▶ 121 \$ sudo service redis-server start

services

0.03s

<https://travis-ci.org/lagotto/lagotto>

Also needed for Scientific Software



archive

/ˈɑːkɪv/ 

verb

gerund or present participle: **archiving**

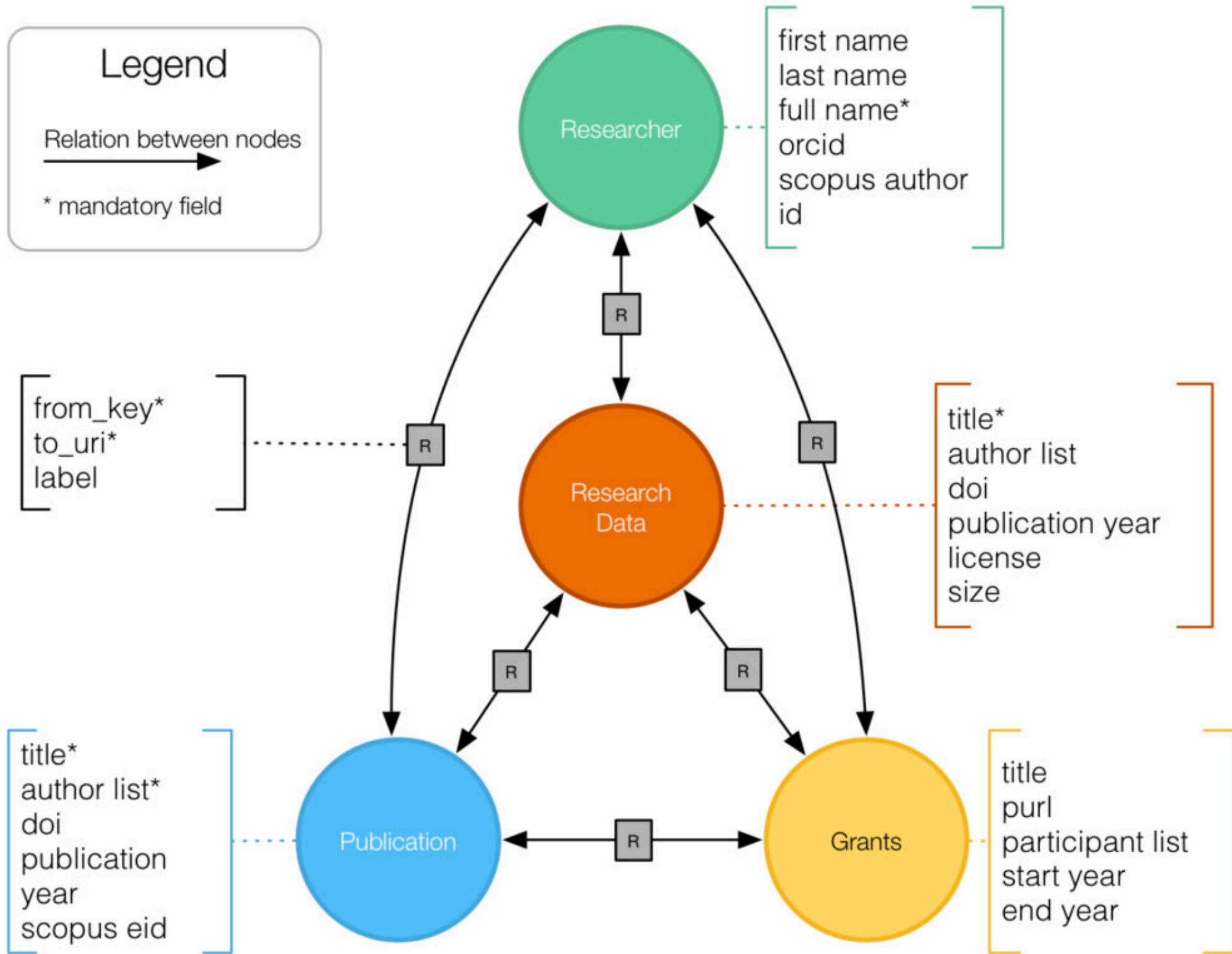
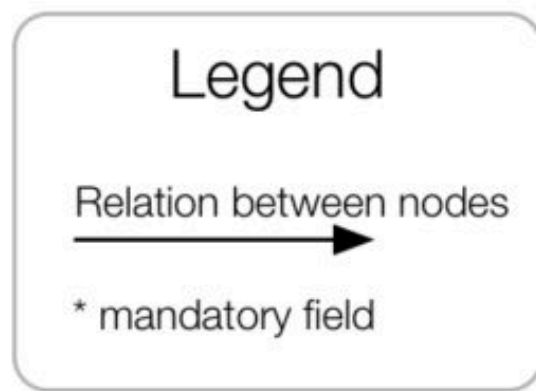
place or store (something) in an archive.

synonyms: file, log, catalogue, pigeonhole; [More](#)

- **COMPUTING**

transfer (data) to a less frequently used storage medium such as magnetic tape.

"the entire directory will be archived"



Research Graph Meta Model

Version 2.0 (Aug 2016)



2009



Project Hosting

Google Code Project Hosting offered a free collaborative development environment for open source projects.

In 2016 the service was shut down, see [this post](#) for more info. Projects hosted on Google Code remain available in the [Google Code Archive](#).



Making Your Code Citable

🕒 10 minute read

[Digital Object Identifiers](#) (DOI) are the backbone of the academic reference and metrics system. If you're a researcher writing software, this guide will show you how to make the work you share on GitHub citable by archiving one of your GitHub repositories and assigning a DOI with the data archiving tool [Zenodo](#).

ProTip: This tutorial is aimed at researchers who want to cite GitHub repositories in academic literature. Provided you've already set up a GitHub repository, this tutorial can be completed without installing any special software. If you haven't yet created a project on GitHub, start first by [uploading your work](#) to a repository.

Intro

[Choosing Your Repo](#)

[Login to Zenodo](#)

[Check Repo Settings](#)

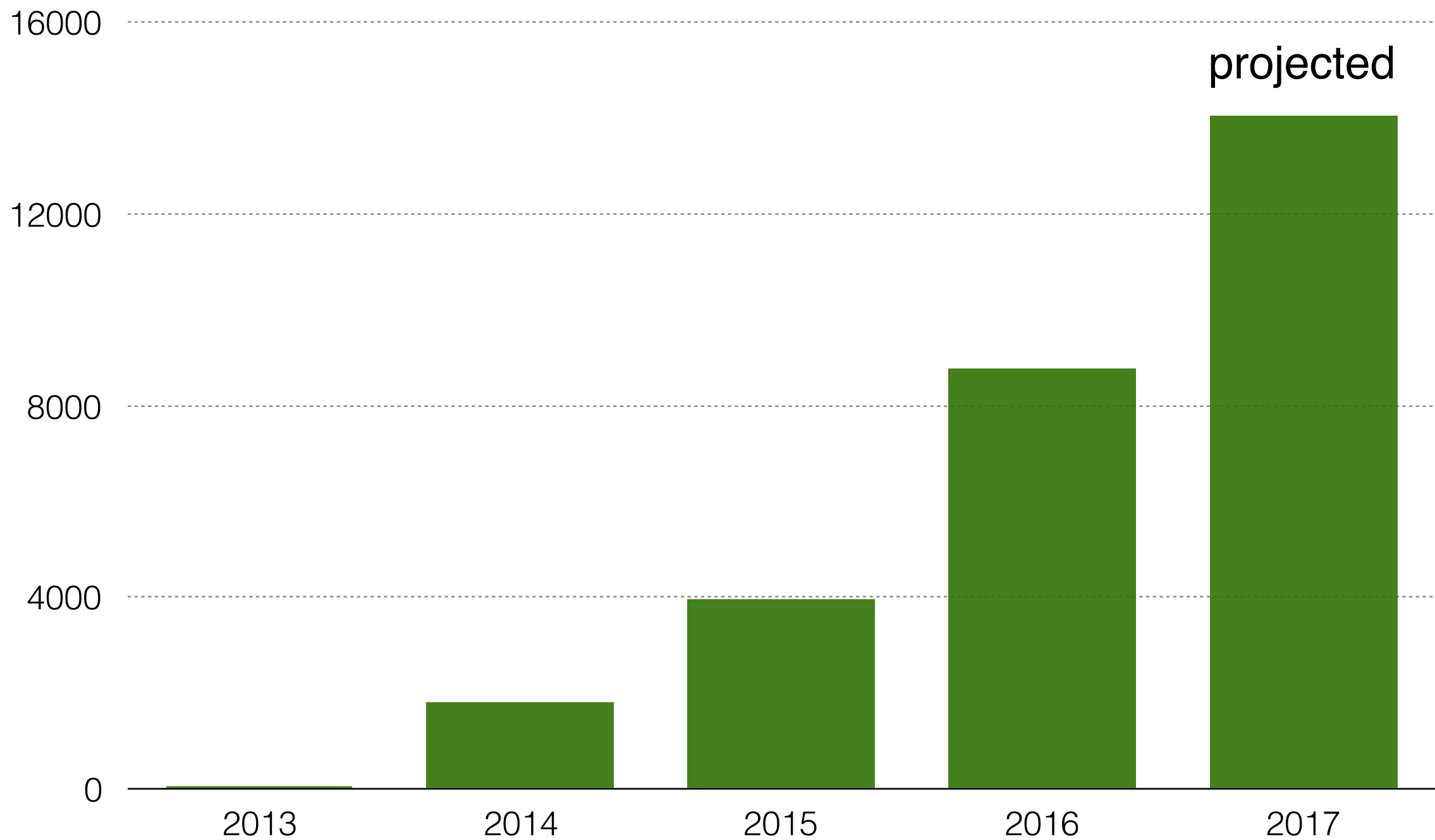
[Create a New Release](#)

[Minting a DOI](#)

[Finishing up](#)

zenodo





Zenodo DOIs for Software

<https://search.datacite.org/works?resource-type-id=software&data-center-id=cern.zenodo>

May 9, 2017

Software Open Access

Scifabric/pybossa: Webpush notifications

Daniel Lombraña González; alejandrodob; Marvin R.; Martin Keegan; Rufus Pollock; Nigel Babu; Nigini Abilio; Alexander Mendes; Gregor Aisch; jorge.correa; Friedrich Lindenberg; noelmas; Gleicon Moraes; Fede; Quentin Mazars-Simon; elyrichardson; Tom Pollard; Stefano Costa; Pedro Ferreira; Pablo Castellano; Daniel Pett

This new version includes official support for Webpush notifications per project for the server. While you can use our pybossa-onesignal library to do your integrations within the PYBOSSA ecosystem, you can also allow users to subscribe to specific projects (instead of globally).

Check the documentation and enjoy this new cool feature!

[Preview](#)

Files

**Name****Size**[Scifabric/pybossa-v2.3.7.zip](#)

707.0 kB

Preview

Download

md5:92c70fc38e71222d029649668ce37a1c ⓘ

Available in

Publication date:

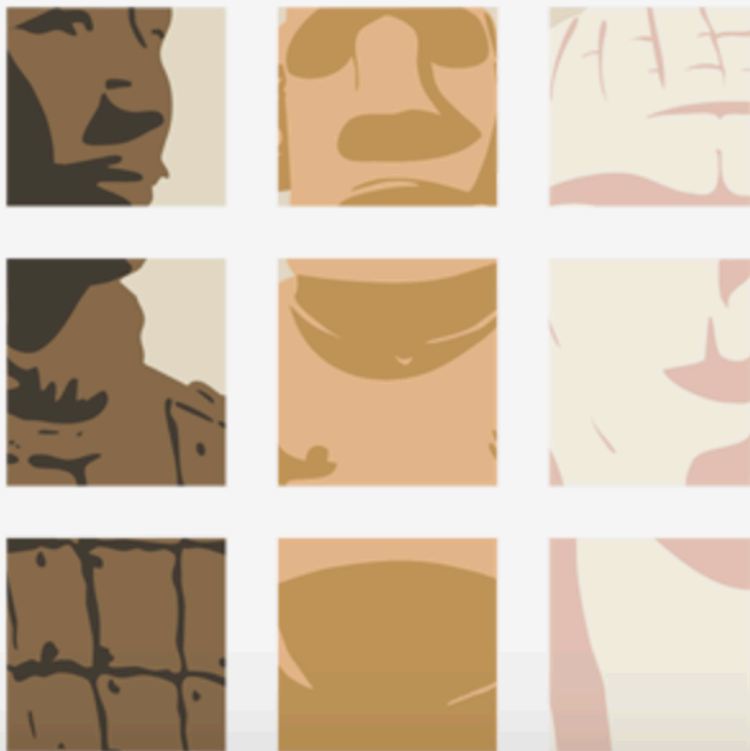
May 9, 2017

DOI:DOI [10.5281/zenodo.573282](https://doi.org/10.5281/zenodo.573282)**Related identifiers:**

Supplement to:

<https://github.com/Scifabric/pybossa/tree/v2.3.7>**License (for files):**[Other \(Open\)](#)

MicroPasts: Crowd-sourcing



Crowdfuelled and Crowdsourced archaeological data

You can assist existing research projects with tasks that need human intelligence, such as the accurate location of artefact findspots or photographed scenes, the identification of subject matter in historic archives, the masking of photos meant for 3D modelling, or the transcription of letters and catalogues. Other tasks might require on-location contributions by members of the public, such as submitting your own photographs of particular archaeological sites or objects. By contributing to a MicroPasts project you will:

- Have a direct impact on research in archaeology, history and heritage
- Help with tasks that computers cannot do
- Develop skills that interest you
- Produce results that will be open and freely usable

To start contributing, just choose one of our Featured Projects below or visit our full list of ongoing [Projects](#).

Lagotto 5.0.1

Zenodo

2016 | other

DOI: [10.5281/ZENODO.49516](https://doi.org/10.5281/ZENODO.49516)



Citation (bibtex) [\[Switch view\]](#)

data	http://doi.org/10.5281/ZENODO.49516
author	Fenner, Martin and Wass, Joe and Song, Jen and Dennis, Zach and Whitwell, Martyn and Osowski, Joe and Ivimey-Cook, Ruth and Cave, Richard and Lin, Jennifer and Chodacki, John
title	Lagotto 5.0.1
publisher	Zenodo
doi	10.5281/ZENODO.49516
url	http://doi.org/10.5281/ZENODO.49516
year	2016

What is Scientific Software?



<https://commons.wikimedia.org/w/index.php?curid=4084391>



Joe Karlsson

@JoeKarlsson1

 **Follow**



Simple Made Easy - Great Tech Talk by Rich Hickey buff.ly/2o3UqBp



12:24 AM - 29 Mar 2017

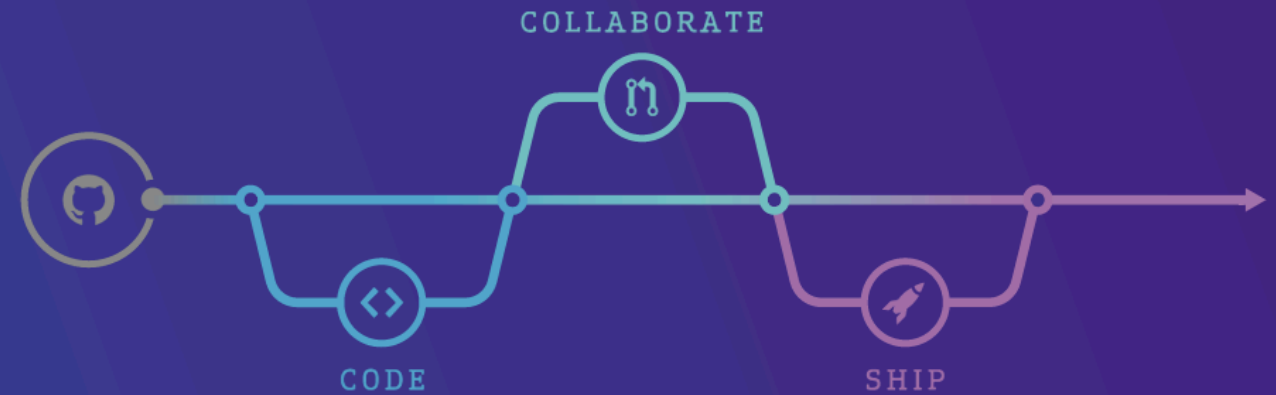


<https://twitter.com/joekarlsson1/status/846850408303726592>

Integrations Directory

Use your favorite tools with GitHub.

Powerful integrations that help you and your team build software better, together.



Filters

All integrations

GitHub Enterprise

New & noteworthy

Categories


API management

Chat

Code quality

Code review

Code search



We couldn't find any integrations.
Try adjusting your search or browse our categories.

Have an integration you would like listed? [Get in touch.](#)
You can also register a new integration in [settings.](#)

Software Heritage


preserves software source
code for present and future
generations

 Check for updates

RESEARCH NOTE

A research note regarding "Variation in cancer risk among tissues can be explained by the number of stem cell divisions" [version 1; referees: 2 approved]

Maxime Tarabichi,  Vincent Detours

 Author affiliations

 Grant information



This article is included in the [Preclinical Reproducibility and Robustness](#) channel.

Abstract

Tomasetti and Vogelstein argued that 2/3 of human cancers are due to 'bad luck' and that "primary prevention measures [against cancer] are not likely to be very effective". We demonstrate that their calculations for hepatocellular carcinomas overlooked a major subset of these cancers proven to be preventable through vaccination. The problem, which is not limited to hepatocellular carcinoma, arises from the general reliance of their analysis on average incidences in the United States and the omission of incidences in specific risk groups.

 METRICS

434

 VIEWS

155

 DOWNLOADS

 Get PDF

 Get XML

 Cite

 Export

 Track

 Email

 Share

Open Peer Review

Referee Status:  

Version(s)	Invited Referees	
	1	2
REVISED Version 2 published 10 Nov 2016		
Version 1 published 22 Aug 2016	 read report	 read report

- Benjamin Roche**, Centre for Ecological and Evolutionary Research on Cancer, France
Cindy Gidoin, Université Montpellier, France
- Maddalena Fratelli**, IRCCS Mario Negri Institute for Pharmacological Research, Italy
Marco Bolis, IRCCS Mario Negri Institute for Pharmacological Research, Italy

[All reports \(2\)](#)

R script and data for: A research note regarding "Variation in cancer risk among tissues can be explained by the number of stem cell divisions"

F1000Research

Algorithm published 2017 via Code Ocean

Tomasetti and Vogelstein argued that 2/3 of human cancers are due to 'bad luck' and that "primary prevention measures [against cancer] are not likely to be very effective". We demonstrate that their calculations for hepatocellular carcinomas overlooked a major subset of these cancers proven to be preventable through vaccination. The problem, which is not limited to hepatocellular carcinoma, arises from the general reliance of their analysis on average incidences in the United States and the...



<https://doi.org/10.24433/CO.A491B0A8-124F-4448-B2C8-B850B5B2AA33>
ORCID record

 Cite

 Add to

Resource Types

Software 1

Publication Year

2017 1







Data Centers

Code Ocean 1

<https://search.datacite.org/works?resource-type-id=software&query=variation+cancer+risk>



<https://pixabay.com/p-2242106>

 Gemfile.lock	check given names	9 days ago
 LICENSE.md	added schema_org parsing	2 months ago
 README.md	use correct media type for datacite_json	16 days ago
 Rakefile	initial version	3 months ago
 bolognese.gemspec	check given names	9 days ago
 codemeta.json	fix syntax	2 months ago

README.md

doi [10.5438/n138-z3mk](#)
gem version [0.9.8](#)
build [passing](#)
code climate [2.8](#)
coverage [96%](#)

Bolognese: a Ruby library for conversion of DOI Metadata

Ruby gem and command-line utility for conversion of DOI metadata from and to different metadata formats, including [schema.org](#).

Features

Bolognese reads and/or writes these metadata formats:

Format	Name	Content Type	Read	Write
CrossRef Unixref XML	crossref	application/vnd.crossref.unixref+xml	Yes	No

<https://doi.org/10.5438/n138-z3mk>

CodeMeta

The CodeMeta project does not seek to create **yet another standard**. Rather, we're aiming to *create a crosswalk table* between standards already in use -- think of this as a Rosetta stone of software metadata. Beginning in an **Open Science Code-fest** discussion lead by

Abby Mayes and now thanks to a generous **NSF EAGER Grant** to Carl Boettiger (UC Berkeley) & Matt Jones (NCEAS & UC Santa Barbara), we will bring together leaders of software and data repositories with academic researchers to develop this crosswalk table for software metadata. This event will dovetail with the **Force16** (Future of Research Communication & e-Scholarship) meeting in Portland.



<http://codemeta.github.io/>

Bolognese: a Ruby library for conversion of DOI Metadata 

APA Harvard MLA Vancouver Chicago IEEE BibTeX RIS

Fenner, M. (2017, February 25). Bolognese: a Ruby library for conversion of DOI Metadata. DataCite. <https://doi.org/10.5438/n138-z3mk>

 Copy to Clipboard

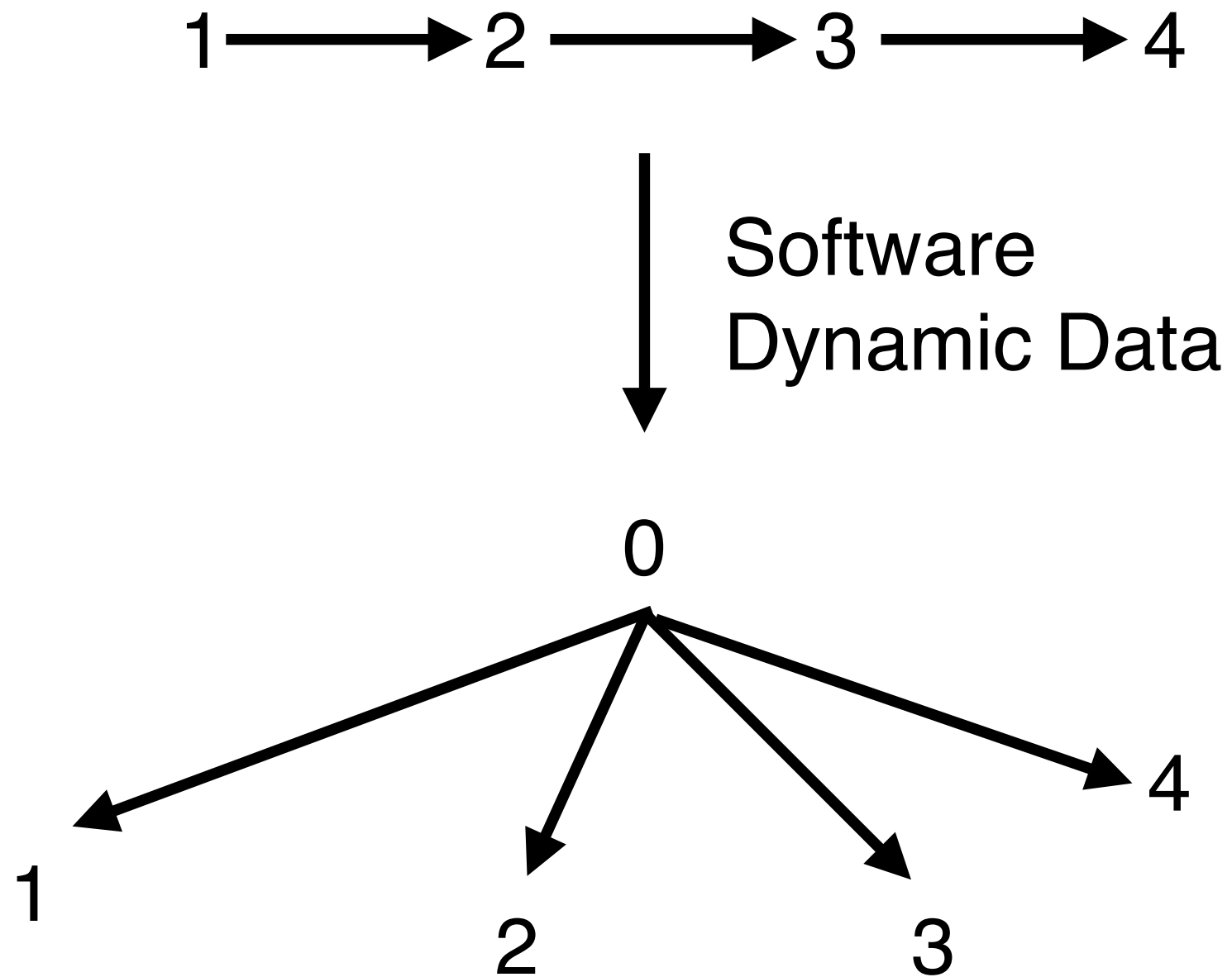
 <https://doi.org/10.5438/N138-Z3MK>  Cite  Add to ORCID record

Data Centers

DataCite 1

<https://search.datacite.org/works?resource-type-id=software&query=bolognese>

Versioning



SOFTWARE CITATION IMPLEMENTATION WORKING GROUP

Description

This group builds on the previous [Software Citation Working Group](https://doi.org/10.7717/peerj-cs.86), which developed and publicized an initial set of software citation principles (<https://doi.org/10.7717/peerj-cs.86>). The activities of the Software Citation Implementation Working Group are: work with relevant stakeholders (publishers, librarians, archivists, funders, repository developers, other community forums with related working groups, etc.) to:

1. endorse the principles
2. develop sets of guidelines for implementing the principles
3. help implement the principles
4. test specific implementations of the principles. During this process, the principles may also be updated based on feedback from the activities.

Goals



BACK TO
TOP

<https://www.force11.org/group/software-citation-implementation-working-group>



FORCE2017

Research Communications & e-Scholarship Conference

25–27 October 2017 | Berlin | Germany

PID **dapa100za**

January 2018.

Reykjavik, Nov 2016