FAIR-BioRS: Actionable Guidelines for Making Biomedical Research Software FAIR

Bhavesh Patel, Ph.D.
Associate Research Professor

CALIFORNIA MEDICAL INNOVATIONS INSTITUTE

FAIR DATA INNOVATIONS HUB

Co-authors: Sanjay Soundarajan, Hervé Ménager, Zicheng Hu

What Are Research Software?

Any software created during the research process or for a research purpose

 Newsflash: It is important to make research software reusable!

How to Make Research Software Reusable??

FAIR (Findable, Accessible, Interoperable, Reusable) Principles

FAIR Data Principles (2016)

FAIR Principles for Research Software a.k.a. FAIR4RS Principles (2022)

Challenges

The FAIR4RS principles do not provide actionable instructions

Principle F1: Software is assigned a globally unique and persistent identifier → What identifier? How to get one?

Our Solution

FAIR Biomedical Research Software (FAIR-BioRS) Guidelines

Minimal, actionable guidelines for complying with each of the FAIR4RS principles

Literature review

+

Our assessment

+

External feedback

FAIR-BioRS Guidelines

Full guidelines: github.com/fair-biors

Each step of the guidelines include clear instructions, specific suggestions, and links to supporting resources

A crosswalk is available between FAIR4RS and FAIR-BioRS

What's Up With These Guidelines?

Community outreach

Conferences, presentations, etc.

Peer-reviewed publication

Accepted in Nature Scientific Data on July 13th 2023

Official NIH guidelines?

Include FAIR-BioRS guidelines in the NIH best practices for sharing research software

Cool, what's next?

We need community support!
Let's make biomedical research software FAIR together

Like the guidelines?
Use them!

Don't like the guidelines?
Help improve them!

github.com/fair-biors

Thank you!

bpatel@fairdataihub.org

bit.ly/fair-biors

Find these slides and all resources here