OSPO Explainer Transcript: Publishing Research Software

URL: https://ospo.library.jhu.edu/ospo-explainers/

Slide 1: Hello, and welcome to the Johns Hopkins University Open Source Programs Office Explainer Series, a collection of bite-sized videos tackling a variety of open-source essentials. New topics are added regularly, check out ospo.library.jhu.edu to see what's coming up, or drop us a line at ospo@jhu.edu to make a request. Today's explainer? Publishing Research Software.

Slide 2: Research software is the collection of tools, code, or libraries that allow a researcher to generate new data or analyze and make meaning of existing data. Research software can also include platforms, services, workflows / pipelines, and executable notebooks.

Slide 3: Many federal funders require research **publications** and **data** to be openly available. Some public access policies, such as NASA's, also require that **software** used to generate results be publicly accessible.

Slide 4: There are many ways to make your research software available as you move along your research, analysis, and publishing workflows.

Slide 5: During research & analysis: Share your code early! Use a public version control system such as GitHub or GitLab to share your code - repositories in GitHub/GitLab can be kept private or shared only with partners, funders, or collaborators until ready for open collaboration or publication. This allows others to view and collaborate on your code, and provides a citable location for your code during analysis.

Slide 6: Consider writing a software paper distinct from a publication about your results, documenting the purpose, functionality, and implementation details of your work. Software papers provide a formal publication record and persistent identifier for your work. It's most common to publish the research paper and code paper simultaneously (each referencing the other).

Slide 7: Software papers can be published in software-specific publications such as JOSS, JORS, and SoftwareX. Domain-specific journals may also accept software papers for publication. The Software Sustainability Institute maintains a non-exhaustive list of journals that accept software papers at this link:

https://www.software.ac.uk/top-tip/which-journals-should-i-publish-my-software

Slide 8: After publication, your finalized code, or the version of your code required to reproduce your analysis, can be deposited to a generalized digital repository such as the Johns Hopkins Research Data Repository, Zenodo, or Software Heritage, or a domain-specific digital repository, such as ASCL (astronomy), CIG (geodynamics), swMath, etc.

If you did not publish a software paper, depositing code into a digital repository is another way to get a persistent identifier and citation.

Slide 9: Some funders may require that you deposit code into a specific repository; in addition, you can deposit into the general repositories noted earlier. Be mindful of requirements from your funder, and include the locations where you will deposit your code in your data and/or software management plans.

Slide 10: Unless otherwise cited, content in this Explainer is adapted from: How to Publish Research Sofware, a talk by Neil Chue Hong at the Open Science Workshop 15 April 2021, Open Science Workshop, I3S, Universidade do Porto (virtual).

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Slide 11: Have any questions about what you've just learned? Ask the JHU Open Source Programs Office for more information. You can reach out to us online at ospo.library.jhu.edu or send an email to ospo@jhu.edu.