NeuroFedora

Free Software for Free Neuroscience

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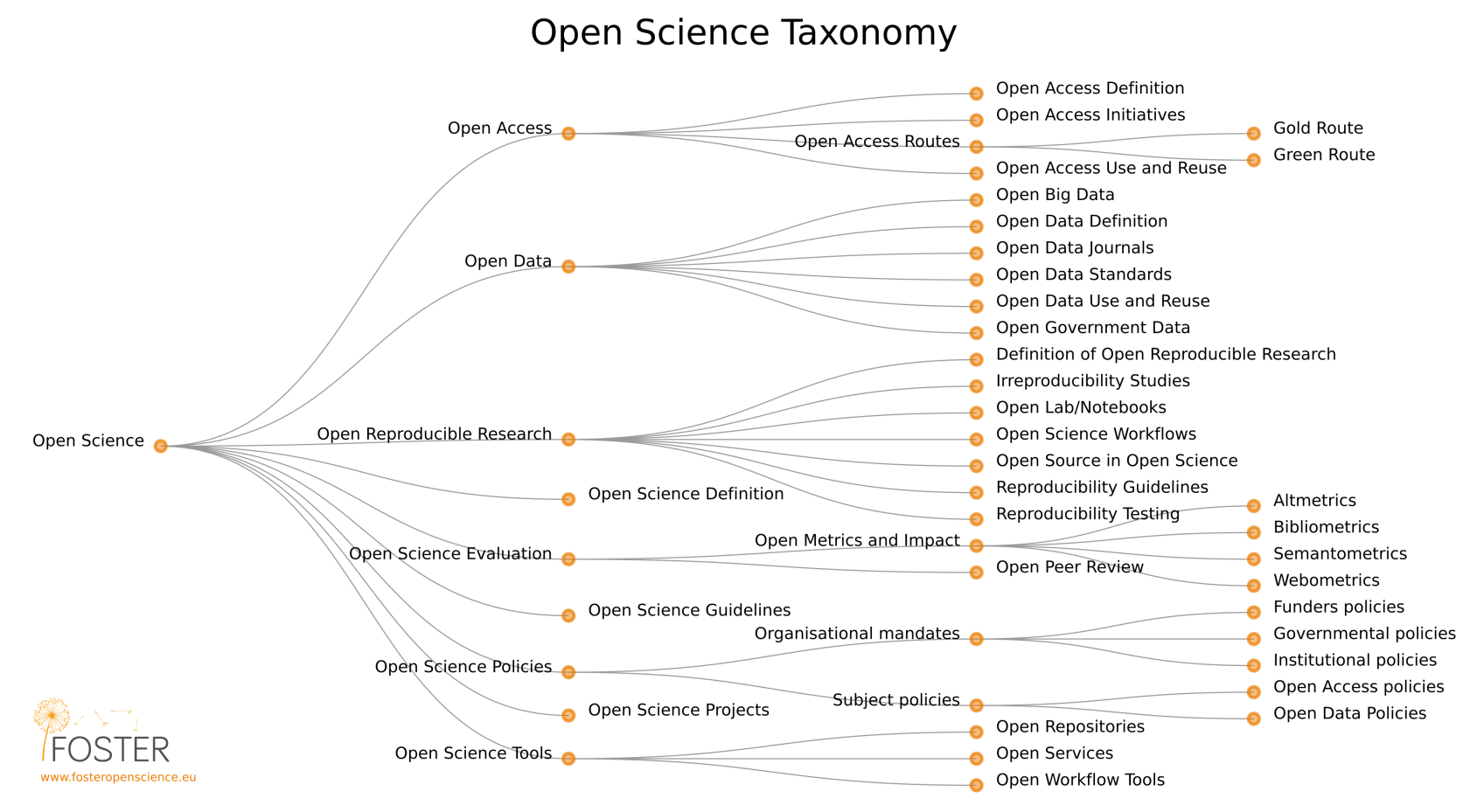
Volunteer: Fedora Project.

Free/Open (neuro) Science

Modern Free/Open Science



[1] Petr Knoth and Nancy Pontika (CC BY 3.0)

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Everyone should have the freedom to share, study, and modify scientific material.

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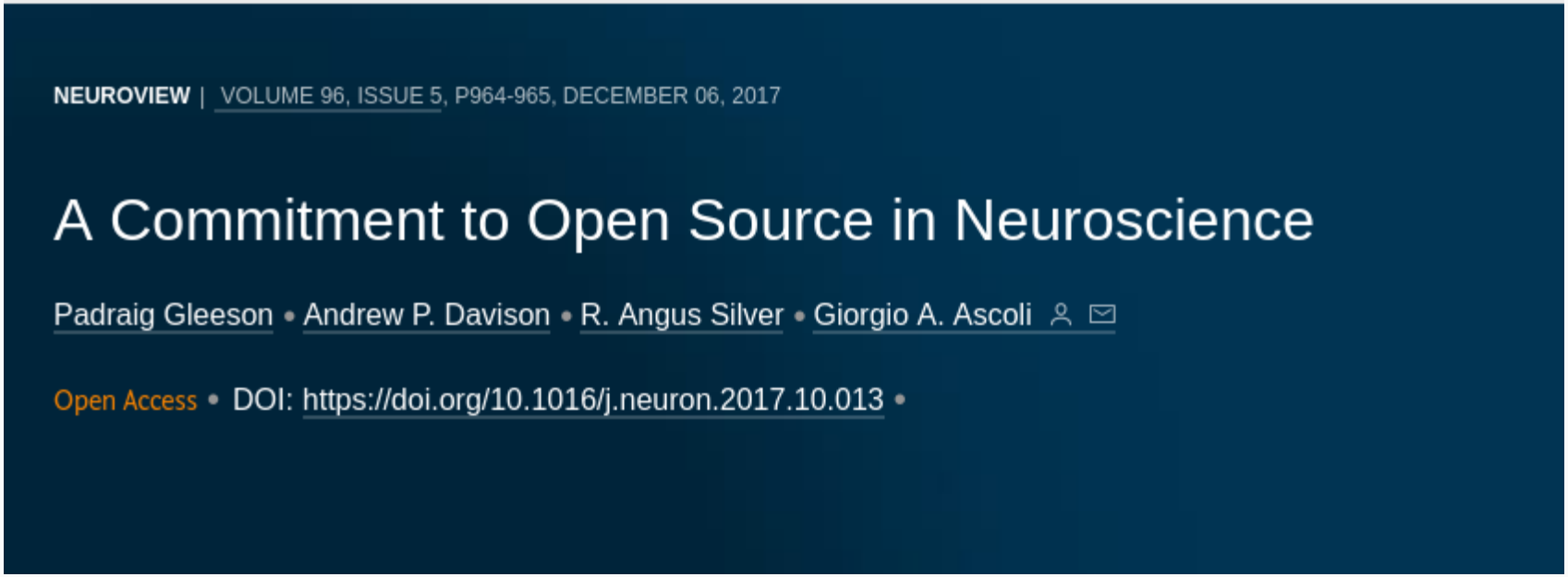
FOSS:
Everyone should have the freedom to share, study, and modify software[5].

[2] Free software foundation

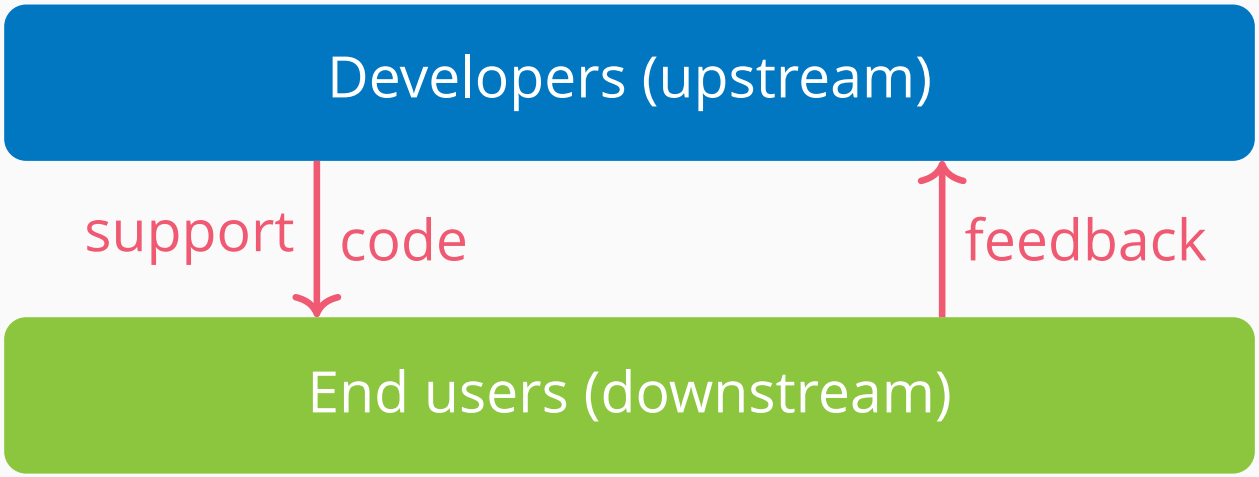
So we strive to use more and more FOSS,



[6] Open source for neuroscience

NeuroFedora: why, how, what?

FOSS: Developers and users



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- various specialities: biologists, mathematicians, physicists, chemists, psychologists, . . . ,

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- small proportion of trained software developers,

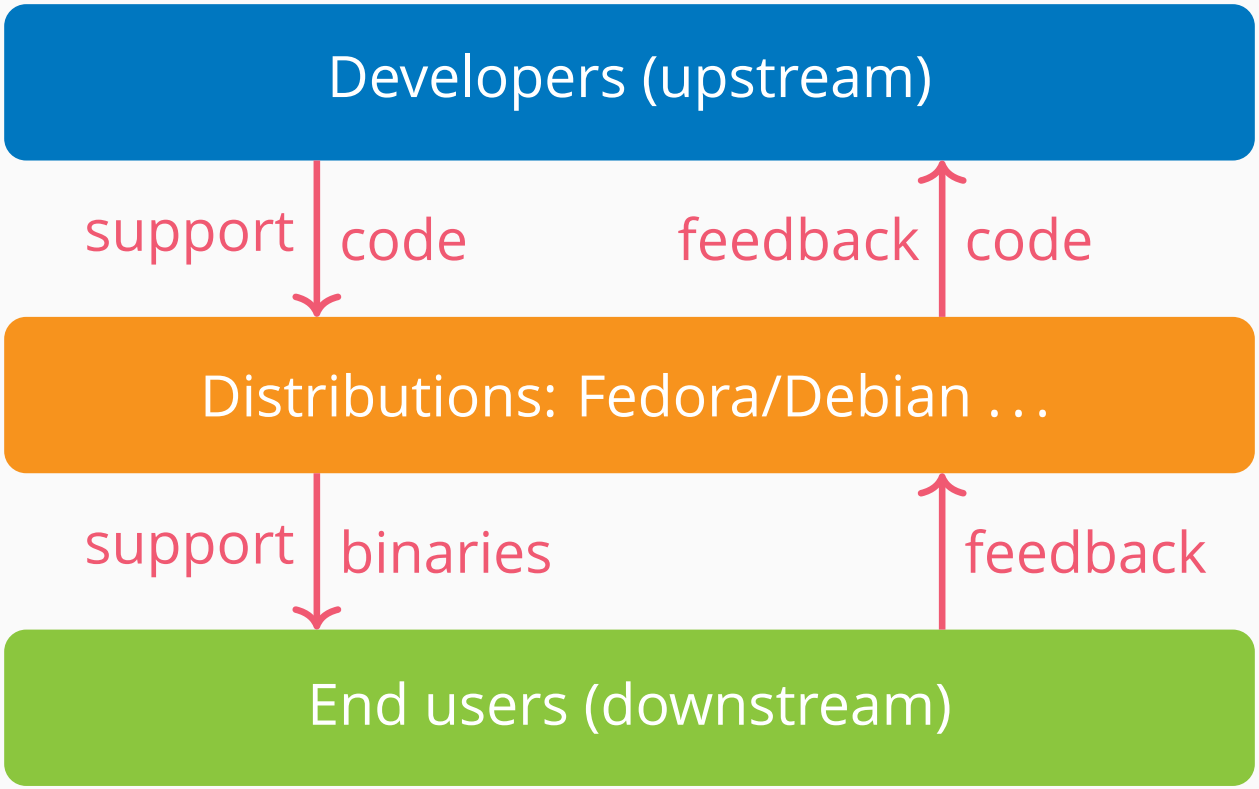
(Anecdotal) notes on development of research software

- often single developer, or small development teams,
- limited maintenance, short-lived projects,
- limited access to hardware/resources,
- limited code quality,
- limited use of established best practices,
- limited testing for correctness (!),
- complex dependency chains,
- lack of documentation and support,
- lack of community development know-how,

(Anecdotal) notes on users of research software

- waste time and effort installing (and reinstalling) their software stacks,
- rarely run test suites (!),
- rarely report bugs upstream,
- rarely send improvements upstream,
- are unaware of helpful development tools,

Distributions liaison between developers and users



Distributions, like Fedora, are in a unique position:

- liaison between upstream and users,
- have the infrastructure,
- follow best practices in software development,
- constantly work community development,
- learn from one another—train while working,
- disseminate information to end-users,

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Primary goal:

- Provide a ready to use, integrated FOSS platform for neuroscientists[7].

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Primary goal:

- Provide a ready to use, integrated FOSS platform for neuroscientists[7].

Secondary/collateral goals:

- help improve the standard and maintenance of tools,
- help users develop software development skills,
- make neuroscience accessible to non-specialists,

[7] Researchers, academics, hobbyists, anyone!

NeuroFedora: current metrics

- less than a year old[8],

[8] in its second iteration

[9] src.fedoraproject.org: Neuro-SIG

[10] Pagure.io: Neuro-SIG: issues

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- 20 active contributors:
  - 15 package maintainers,
  - 5 designers, newcomers,
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- software:
  - 120 tools (packages) ready to install[9].
  - ~170 in queue[10].

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NeuroFedora is at:

Mailing list: neuro-sig@lists.fedoraproject.org

IRC: #fedora-neuro on Freenode

Telegram: t.me/NeuroFedora

Documentation neuro.fedoraproject.org

Blog: neuroblog.fedoraproject.org

Pagure.io (FOSS Git forge): neuro-sig/NeuroFedora