Open science is transparent and accessible knowledge that is shared and developed through collaborative networks.

1. A simplified diagram. Actually a lot more complex
2. General workflow of research-based work.
3. Most work now-a-days is being carried out with the use of computer software, such as ...

1. Experimental: DICOM/Image viewers, fsl tools, software to drive the big machines
2. Data Analysis: Simple/complex libraries, from numpy, scipy to scikit-learn, tensorflow
3. Simulators: Neuron, NEST, plenty more...
4. Lots of hardware and software is required for basic neuroscience research.

1. Summarizing everything
2. With the help of NeuroFedora we want to consolidate the two movements

1. A fun paper to read on Open Science + Open Software
2. Discusses reproducibility crisis. Where people are unable to reproduce data, results
3. Also the benefits of open-sourcing code. helps community. reuse. build-on and improve. publication becomes an advert for the code.

Why do we need NeuroFedora?

Let's talk about the neuroscience community first

1. The community is multi-disciplinary
2. Full of people from various fields
3. Not all have the required XP

1. Issues with the flowchart: 1. Dev assumes the end users are knowledgeable, who know how to build/install their tool? 2. The devs expect the end users to provide regular feedback, run tests etc.
2. based on anecdotal evidence, software used in research is not of the best quality
3. may or may not meet development standards
4. may not have an instruction set on how to install/use the software
5. users also suffer from resolving dependencies
6. lack the required skill/knowledge of programming, they have a hard time setting up and using the software
7. If correctness of a tool cannot be verified, how can the correctness of the scientific result be claimed?

1. role of distros:
2. liaison between the users and developers
3. provide feedback, report bugs to the dev
4. simplify installation/usage XP

1. high end servers. multiple mirrors across the globe
2. firm packaging guidelines; go through a heavy-duty review process; proper testing of the software before releasing to the general user
3. many contributors hail from different backgrounds, and have a lot to learn
4. provide help to the users

So, what we, as a SIG, are offering to the community?

1. The comp-neuro OS is a "spin" of Fedora with all the neuro tools pre-installed
2. Easy to use, just install and play

1. Packages that we provide must go through the Fedora Quality Assurance (QA) process. You can simply enable the updates-testing repository and help by testing updates.
2. Bugs must be reported to the bugzilla. Any bugs related to packages can be helped with at upstream
3. User documentation is a most important resource. You can help by improving or contributing to our documentation.
4. We've set up communication channels to help users troubleshoot issues and get help. You can help by remaining present in the communication channels and answering users' questions.
5. Help us spread the word! Write about NeuroFedora, share your opinions on social media, help more people learn about the project and get involved!