CCSL CENTRO DE COMPETÊNCIA EM SOFTWARE LIVRE
FLOSS Competence Center

NeuroMAT Technology Transfer with Open Source Software and Open Data

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NeuroMAT - NUMEC - May 7th, 2015

USP

Open Science

Open Science refers to the idea that publicly-funded research should be accessible to all and should benefit the entire society.

Maximizes opportunities for collaboration and is a research accelerator.

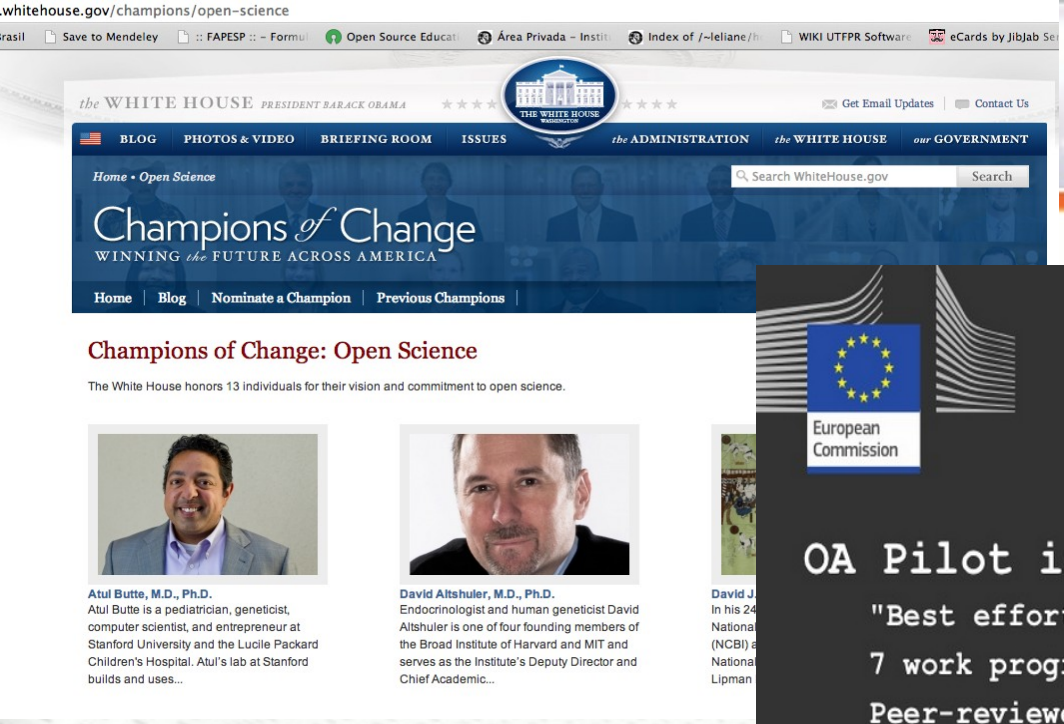
3 pillars:

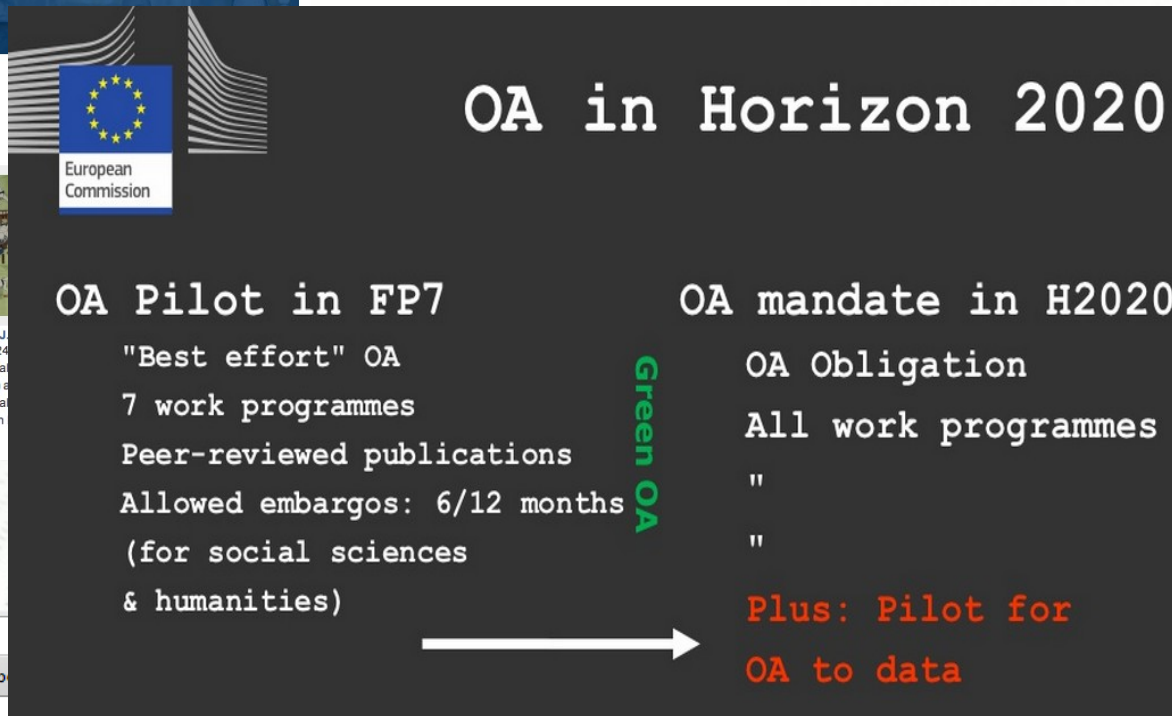
- **Open Access**
- **Open Data**
- **Open Source Software**

Reproducibility

Pragmatically, open science is the only way to assure reproducibility of scientific results!

Who is supporting?





7) Benefits and obligations specific to the eScience program

The eScience Program will have periodic workshops with mandatory attendance for all the PI's involved with the program and, in some cases, their collaborators and students. These workshops will be a special opportunity to update all involved on the research conducted in the field and to have access to new data and information before publishing.

Proposals must explicit which efforts will be made for the results of selected projects (including intellectual property of these results) to be largely available. The results should be accessible under an open source license approved by the OSI (**www.opensource.org/licenses**), in the case of software, or under a Creative Commons license (www.creativecommons.org), in the case of documentation, technical reports, and associated documents. These considerations also apply to databases, datasets, workflows, etc. generated by the project.

What is Open Source Software?

Free Software = Open Source Software

(FSF) (OSI)

4 freedoms (FSF):

- Use
- Study
- Modify
- Redistribute

Licenses

- **Open source projects MUST choose a license!**

- **If you don't**
  - it's not open source, it's not free software
  - it's proprietary, copyrighted code!

Types of licenses

1. Project-based Reciprocal

e.g. GPL

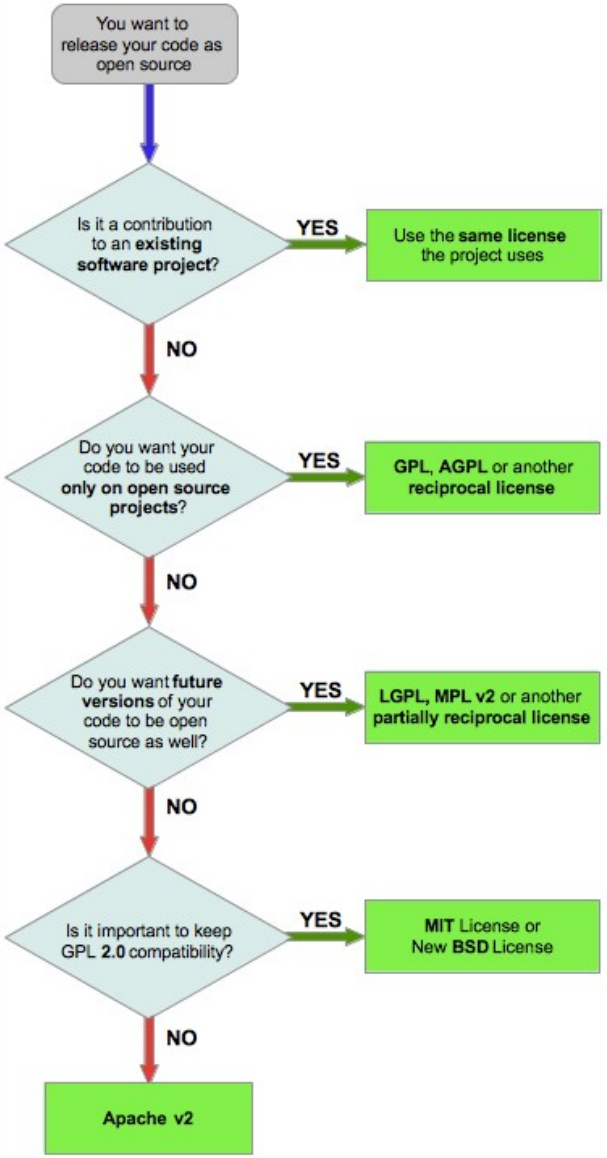
2. File-based reciprocal

e.g. LGPL

3. Non-reciprocal

e.g. MIT or BSD

How to choose a license



How to choose a license

The Benefits

- Knowledge belongs to entire society
- Students/developer/researchers can learn from existing code
- Improved privacy/security
- Shared costs
  - better use of resources, e.g. for
    - governments,
    - companies, and
    - scientists

Benefits for the economy

- Entrance barrier for startups and young companies is much lower
- Startups can play easily with multiple alternative architectures, languages, tools, etc.
- Decreases vendor lock-in
- Companies can't use monopoly in one IT sector to impose bad products in other IT sector

Successful companies with OS-based business

- Canonical
- 4Linux
- RedHat
- wordpress
- wikia.com
- status.net
- Suse
- Metamaquina
- Alfresco
- Mulesoft
- JBoss acquired by Red Hat
- SpringSource acquired by VMware
- Eucalyptus
- many many more
- your company can go here...

Successful startups that use Open Source

Successful startups that use Open Source

Actually, I couldn't find any that didn't use

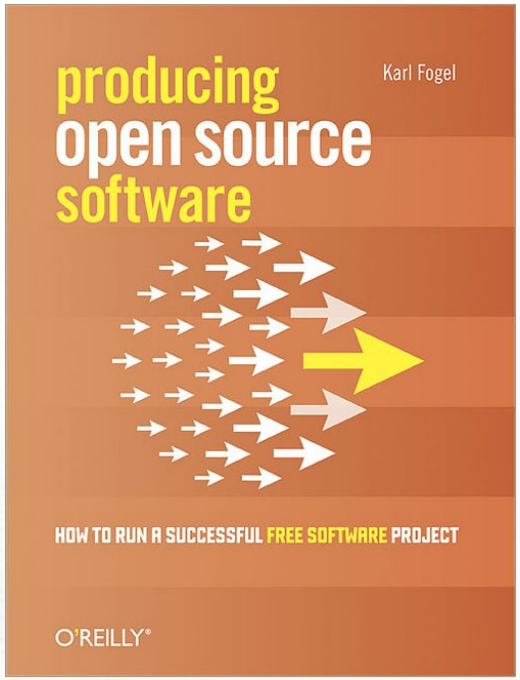
Don't wait to open it!

- Be open from day one

- The longer a project is run closed source, the harder it will be to open source later.
  - Passwords & config checked into code repository
  - Sample data constructed from live (confidential) data
  - Bug reports w/ sensitive information
  - Overly-honest comments in the code
  - Team correspondence archive becomes unpublishable
  - Libraries okay for internal use but not for distribution
  - Documentation in internal formats, not for public use
  - Non-portable build dependencies

FLOSS Project Building

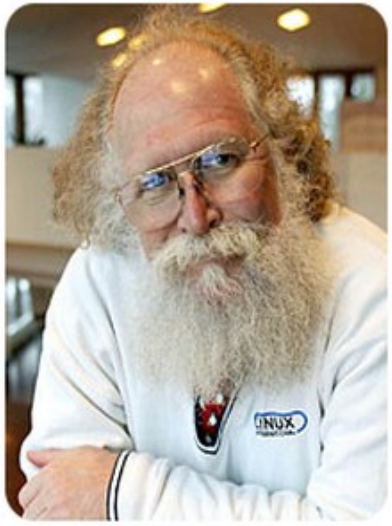
- **producingoss.com**
- **2nd edition crowd funded**



- wiki.civiccommons.org/Releasing_Open_Source
- wiki.civiccommons.org/Open_Source_Development_Guidelines
- wiki.civiccommons.org/Choosing_a_License
- wiki.civiccommons.org/Legal_Policy *(big)*
- civiccommons.org/2011/05/it-dashboard-six-weeks-in
- civiccommons.org/2011/01/be-open-from-day-one

The History of Free Software and Computer Science

Tue, 20/08/2013 - 10:30



CCSL promotes the presentation The History of Free Software and Computer Science by Jon "Maddog" Hall, Director of Linux International.

Date: 22/08

Time: 10hs

Where: auditório do CCSL no IME-USP

Read more

5th Computer Science Undergraduate Students' Meeting August 16 - 22, 2013

Mon, 12/08/2013 - 10:02

V Encontro do BCC

The Encontro do Bacharelado em Ciência da Computação (Computer Science Undergraduate Students' Meeting) is an event that takes place annually at the University of São Paulo's Institute of

What is the CCSL?

The CCSL (FLOSS Competence Center) at IME/USP is a center supported by FINEP, by the USP rectorate, and by the QualiPSo initiative and hosted at the Computer Science Department at IME/USP, São Paulo, Brazil. The center has collaborations with ICMC/USP-São Carlos and EACH/USPLeste and its projects are funded by Brazilian Research Agencies such as CNPq, CAPES, and FAPESP.

Learn more about it...

Projetos

- Achusp
- AcMus
- Archimedes
- Arquigrafia
- Baile
- Borboleta
- Casamento entre Grafos
- CHOReOS
- CoGrOO
- Colmeia
- DonkeySurvey

Get Involved!

Your participation is welcome here. CCSL would like to know your ideas. Subscribe to our mailing lists...

Firefox Plugin

Install the firefox plugin to search at CCSL site

Install the CCSL Search

FLOSS Competence Center Network

NEWS FROM THE COMPETENCE CENTERS

- **Seminar on " Malayalam Computing: Challanges and Responsibilities"** (Space-Kerala)
- **SPACE at Child Psychiatry Update** (Space-Kerala)
- **Session on HTML5 and Firefox OS App at Central Polytechnic Trivandrum (CPT)** (Space-Kerala)
- **Software Freedom Day Celebration at Kalpetta with MSSRF** (Space-Kerala)
- **Onam Celebration, 2013** (Space-Kerala)

more

Home

Welcome to the portal of the international network of Free/Libre Open Source Software (FLOSS) Competence Centers. The FLOSSCC network is a world-wide initiative promoted by FLOSS enthusiasts from Brazil, Denmark, France, Germany, India, Ireland, Italy, Japan, Norway, Poland, Slovenia, South Africa, Spain, Sweden, and USA.

The objective of each Competence Center is to act locally in its geographical region, working as a meeting point and knowledge repository in the field of FLOSS and of its own specialties. Competence Centers also collaborate in a worldwide community exchanging experiences, methods, and solutions to expand and spread knowledge on FLOSS. These Centers work as catalysts, fostering trust and reliability of FLOSS, both in the software industry and in society.

All Competence Centers share a common ethics and culture of collaboration that is expressed in the Manifesto for FLOSS Competence Centers.

HOW TO CONTACT US

If you are interested in receiving support or discuss any issue related to FLOSS, please visit the List of Competence Centers and get in touch with the Competence Center nearest you (either geographically or logically speaking).

If you are interested in setting up a new competence center or if you already are involved with a FLOSS Competence Center that is not part of the network, please write to yuri.glickman at fokus dot fraunhofer dot de with a brief description of your activities and interests and you will be invited to join the network.

Open Data

Sharing of data among scientists:

- not reinventing the wheel
- decreasing costs
- making publicly-funded research data public
- promote collaboration
- accelerate research

Requirements:

- structure
- meta-data (provenance)
- standards
- tools to manipulate it
- privacy
- security
- query and navigation mechanisms

what we promissed

From our FAPESP application:

- The first activity of the Center in technology transfer will be the development of a collection of open source tools for basic neuroscience research, databases handling and clinical practice, in particular with respect to diagnostics and rehabilitation of stroke patients. These will evolve in tandem with the theory up to a point where sufficient utility can be amassed into an useable product.

THANKS!

FLOSS Competence Centre
IME/USP

- **Article summarizing these ideas:**
  - **www.ime.usp.br/~kon/papers/ComputacaoBrasilKon2013.pdf**
- **Visit us:**
  - http://ccsl.ime.usp.br/en
- **Write us:**
  - ccsl@ime.usp.br
  - fabio.kon@ime.usp.br

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