#### Distribution of Software

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Programming for Scientists

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## Why Make Your Software Available?



- You want to.
- You have to.

### Science Code Manifesto



http://sciencecodemanifesto.org/

### Science Code Manifesto



http://sciencecodemanifesto.org/

Many other similar iniciatives.

# Open Source



What is open-source?

### Intellectual Property



Wikipedia-level introduction to intellectual property:

- copyright
- 2 patent
- trademark

#### Licenses



A license is a loosening of the default "All Rights Reserved" framework.

#### Licenses



- Public-domain
- SD or MIT licenses
- GPL (copy-left)
- ...(10 million others)

### Public Domain



I can do whatever I want.

#### MIT License



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Copyleft



### GNU Project





http://www.gnu.org

#### Free Software



- Free as in beer (gratis)
- Free as in speech (libre)

## GNU General Public License (GPL)



You can distribute & modify the software as long as

- you make the source code available,
- you license your modifications under the GPL.

## GPL Compatibility



You can use BSD licensed code in a GPL. BSD is GPL compatible.

# GNU Lesser General Public License (LGPL)



If you write a library and release it under the LGPL, then closed-source programs can use it.





# Summary



- Think about your license
- Pick either BSD/MIT, or GPL, or LGPL
- Be careful about code re-use

## Non-Code Open Source



- Creative Commons.
- GFDL

#### Creative Commons



#### Restrictions

- Attribution [By] you need to state the source
- Non-Commercial [NC] you cannot use it for commercial purposes
- Non-Derivative [ND] you may not modify the work
- Share-Alike [SA] you must license your derivative works similarly

Mix & match to get a license, e.g., By-NC-SA.

### This is Complicated...



... can't I just put up my software on my lab webpage?

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... can't I just put up my software on my lab webpage? Let me give you two answers:

# This is Complicated...



... can't I just put up my software on my lab webpage? Let me give you two answers:

- Yes, but that is a confusing legal grey area and some people (like me) will complain.
- 2 No, because doing so is the same as writing "this is made available for you to look at, but I might change my mind at any minute and demand that you start paying, take it offline, &c." Because, the default is "all rights reserved."

How do you actually distribute your software?

- Put it on your home page
- Put it in PyPI (Python Package Index)
- Use a service like github, google code, launchpad, ...

# Distributing Software: PyPI



Python Package Index