Licensing of research outputs

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Centre for Digital Life & ELIXIR Norway
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ELIXIR NORWAY

CENTRE FOR DIGITAL LIFE NORWAY

Objectives

? Questions

- **What is intellectual property/copyright/derivative work?**
- **What is free software/data?**
- **What types of licenses exist?**

! Objectives

- **Get familiar with terminology around licensing**
- **Discuss what is and is not derivative work**
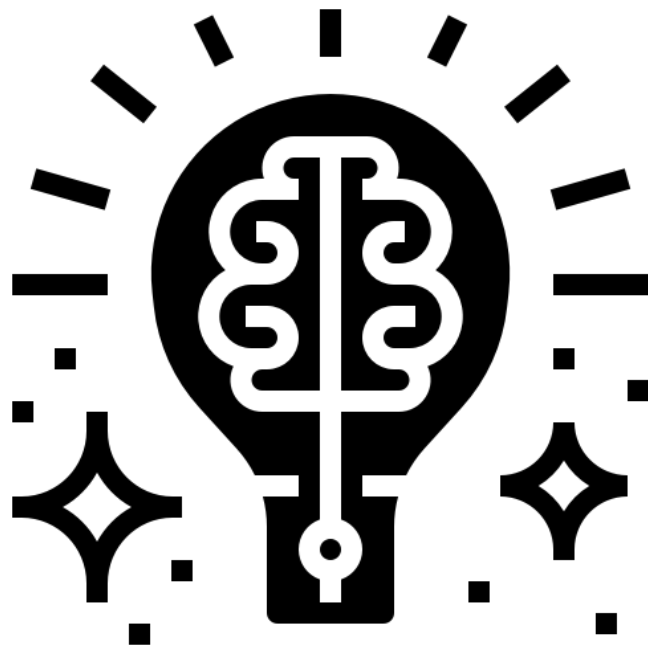
Intellectual property rights (IPRs)

Patent: Protects novel, non-obvious, inventions

Copyright: creative products: software, writing, figures, photos, some datasets, this presentation

Database directive

Trademark: Protects a name/brand

Trade Secrets
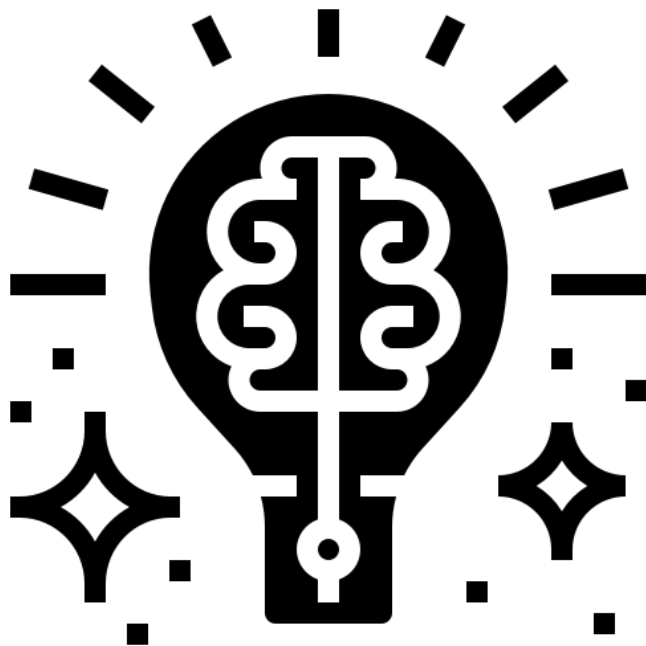
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IPR often regulated in work contract

Patents in Europe

Active process

No prior disclosure

Apply only in limited geographical scopes

Fees (varying by business size and scope)

Apply for max 20 years after application

Software patents in Europe

(it's complicated)

The European Patent Convention states that software is not patentable.
in contrast with e.g. the US

The European Patents Office (EPO) grants software patents by declaring them as "computer implemented inventions".

Erosions: VICOM 1986, COMVIK 2002, ML guidelines 2018, Bentley 2021

http://www.epo.org/law-practice/legal-texts/html/epc/2013/e/ar52.html

Copyright in Europe

Creative products: software, writing, figures, photos,...

Details for software: Directive 2009/24/EC

Applies by default

Does not apply for facts

Economic rights vs. moral rights

Author lifetime + 70 years

Commons:Copyright rules by territory/Norway
https://lovdata.no/pro/#document/NL/lov/2018-06-15-40
https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32009L0024
https://lovdata.no/pro/#document/NLX2/avtale/avt-1992-05-02-1-v17

Example WIPO: Genetic data

Raw sequence does not have copyright

Processed data might have

Patenting unaffected

Special consideration regarding traditional knowledge (Nagoya protocol)

EU Database directive

Defined additional (*sui generis*) IPR for:

"collection[s] of independent works, data or other materials [that does not fall under copyright] arranged in a systematic or methodical way and individually accessible by electronic or other means"

15 years by default

Licensing

A licensor may grant a license under intellectual property laws to authorize a use (such as copying software or using a patented invention) to a licensee, sparing the licensee from a claim of infringement brought by the licensor.

License - Wikipedia

Checkpoint: Which of these have to be considered derivative work and are a copyright infringement if not licensed?
[zoom poll]

Which of these is derivative work?

✔️ **Download some code and use one of the functions in your**

code

❌ **Linking to libraries (static or dynamic), plug-ins, and drivers**

❌ **Clean room design (you never see the code)**

✔️ **Extending code you got from somewhere**

✔️ **Rewriting code to a different programming language**

Why should I licence my research outputs?

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👆 **Legal security for users (Accessibility) + Funder requirement**

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Increase of willingness to reuse outputs (Reusability)

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Increase of willingness to reuse outputs (Reusability)

Allows deposition/mirroring in 2nd databases (Findability)

Concepts in open licenses

Waive all your interests that may exist in your work

     Copy left:

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Copy left:

Credit for the original creation

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License new creations under identical terms

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Waive all your interests that may exist in your work

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Credit for the original creation

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Non-commercial

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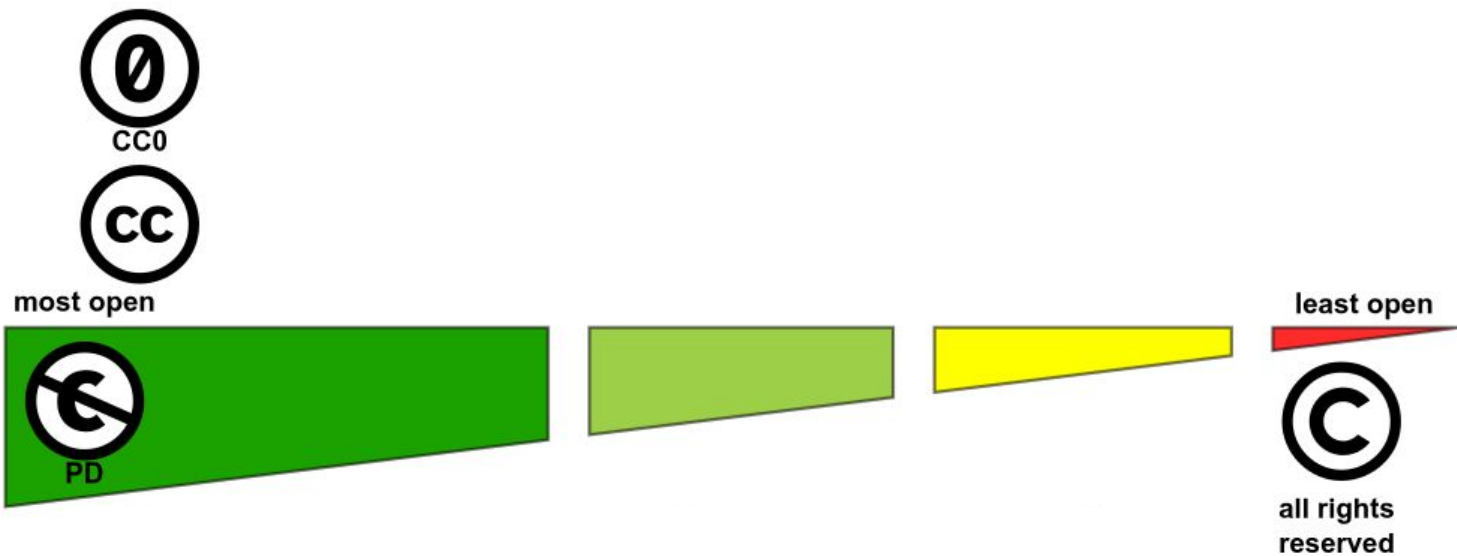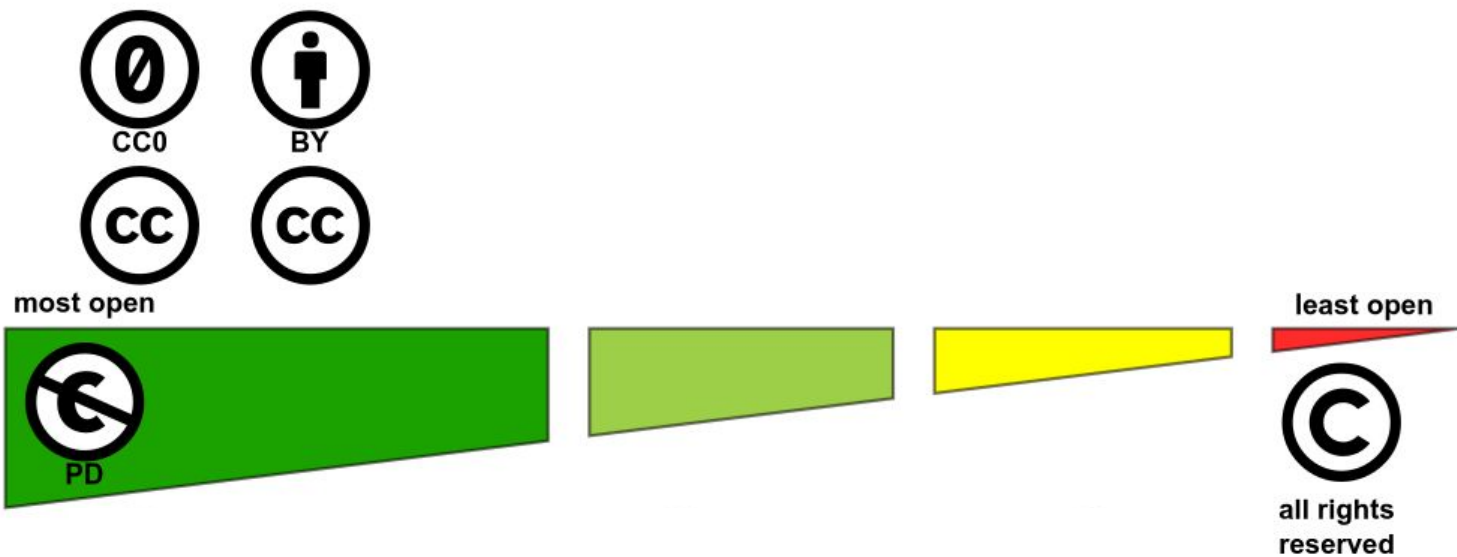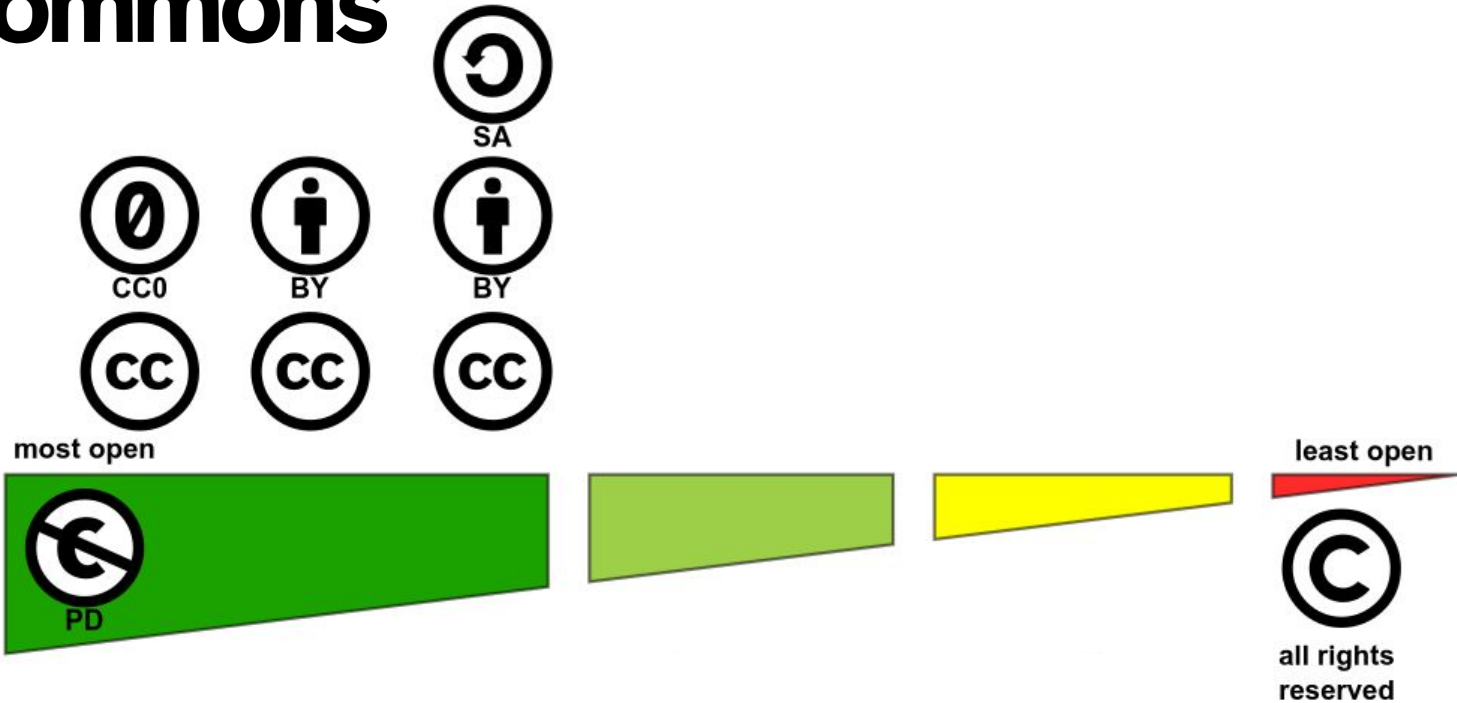Cannot be shared with others in adapted form
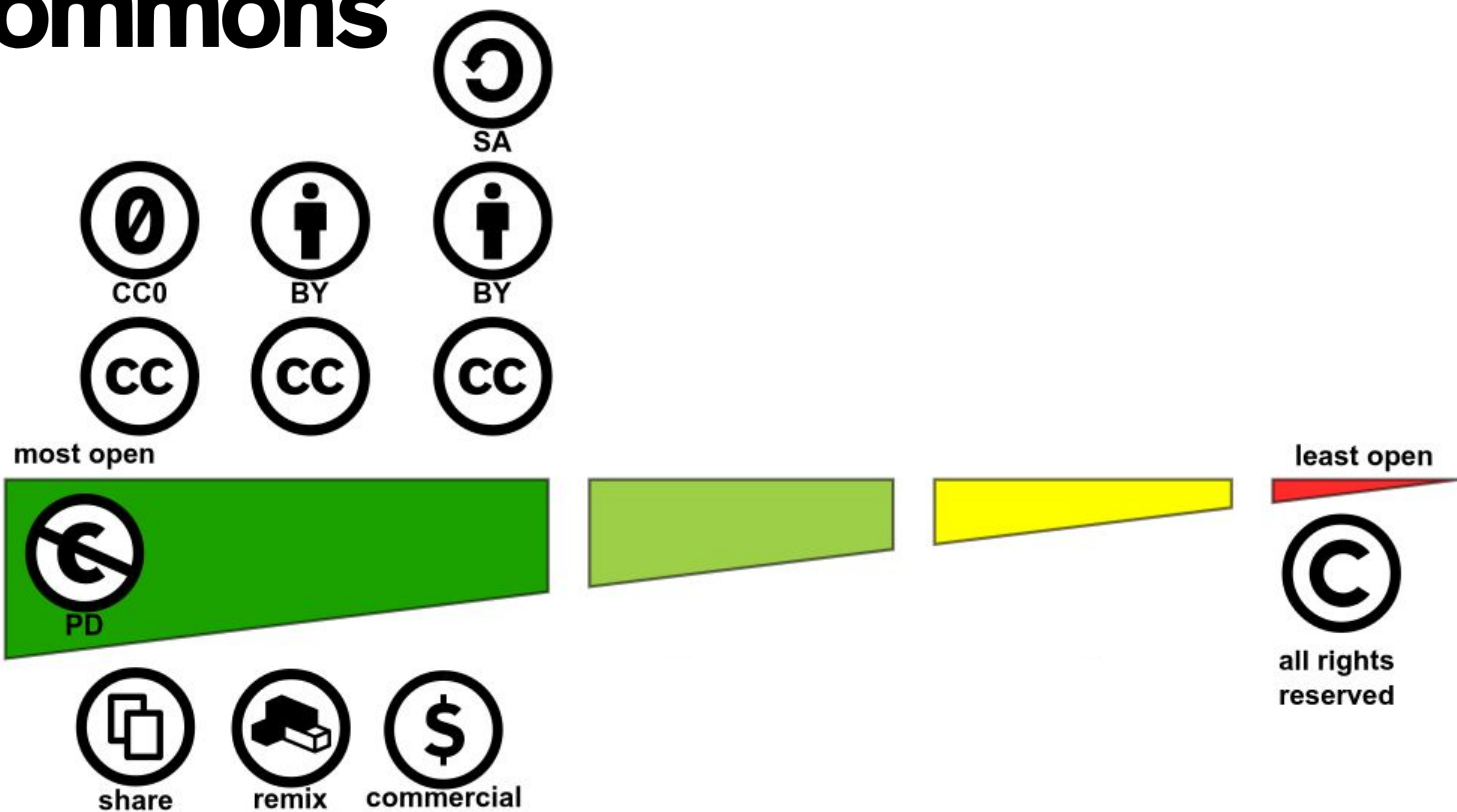
most open · least open

PD · all rights reserved

"open"

Legal code, harmonized for national/international law

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Human readable, understandable text

![creative commons]

Legal code, harmonized for national/international law
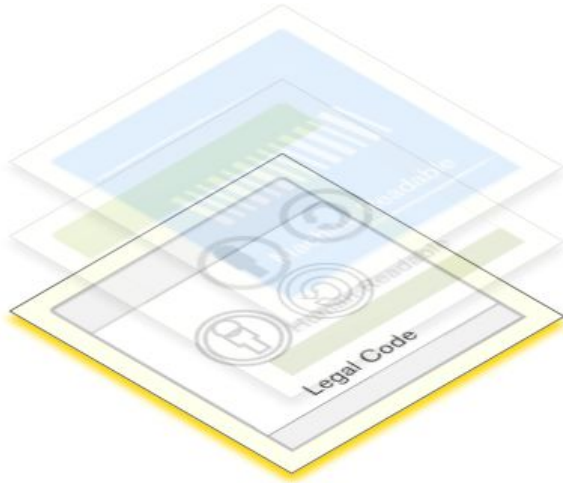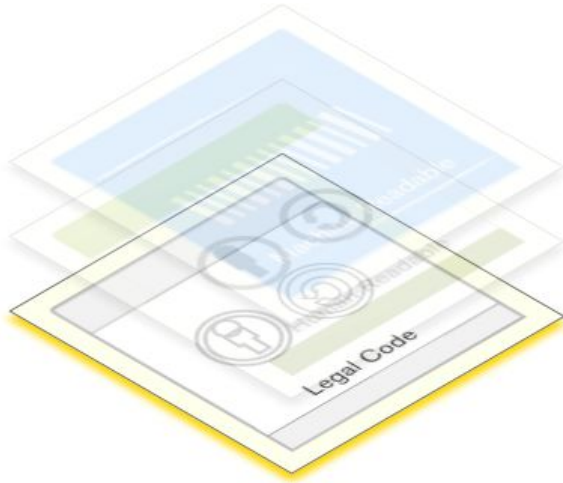
Human readable, understandable text
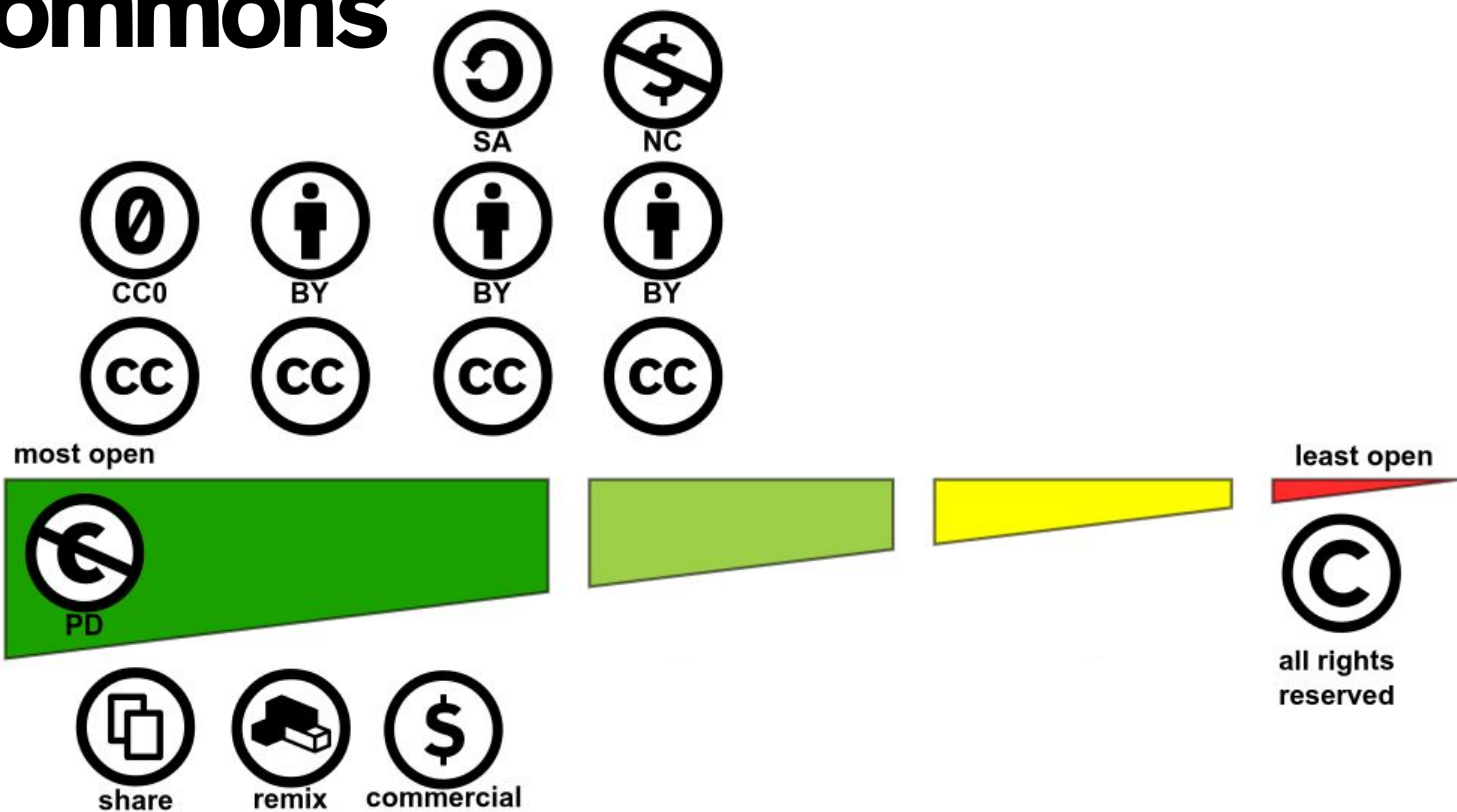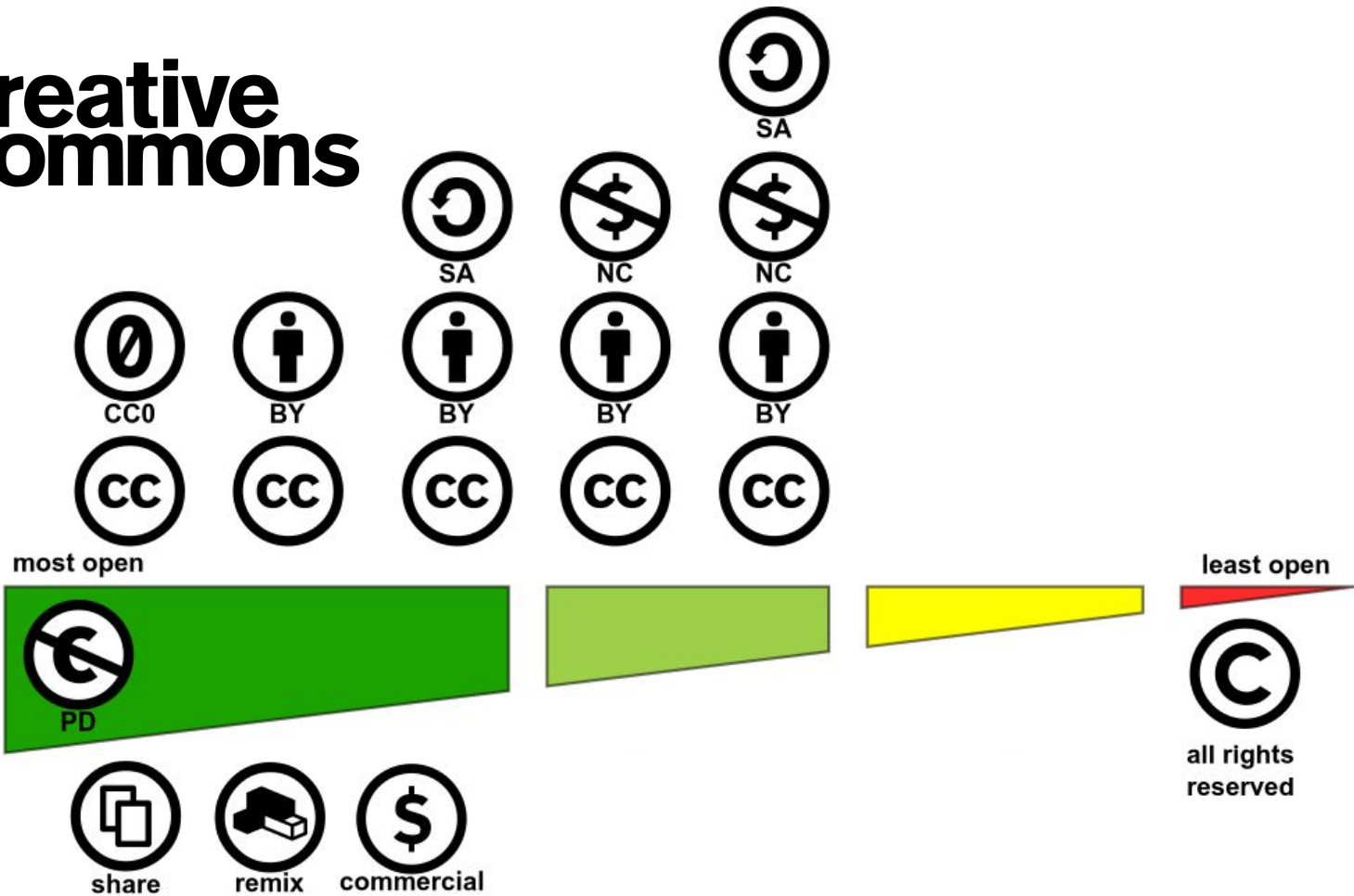
Machine readable html tag attachable to metadata

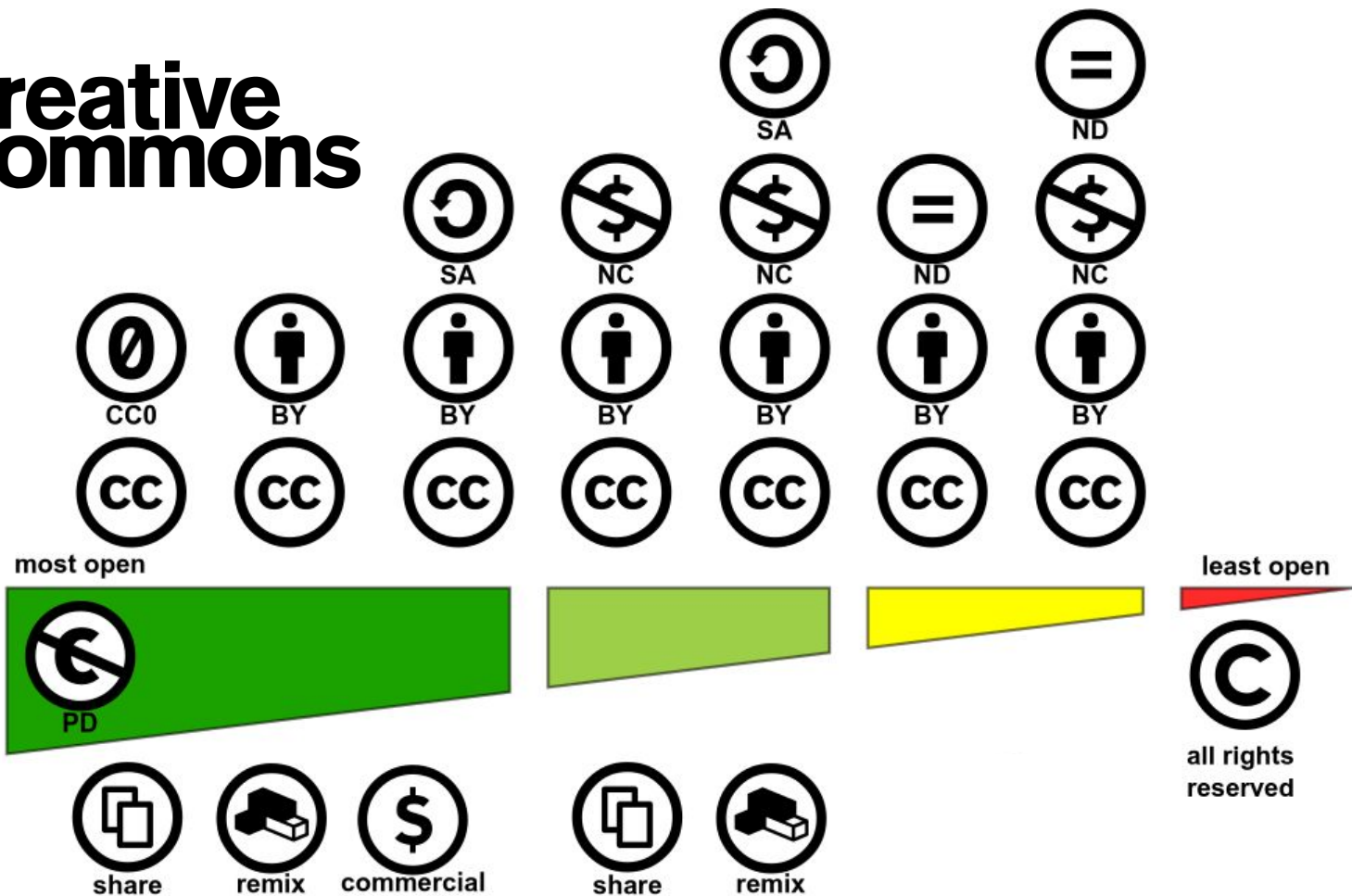Who to use this in practise?

creative commons

Creative Commons **- What is licensed?**

Nathan Yergler, Alex Roberts **- Who is to be attributed?**

Licensed to the public under [CC BY 3.0 Unported](#) **- Which license?**

Challenges

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Multiple Attributions for several sources (license stacking)

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Multiple incompatible source licenses

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Legal commercial definition (e.g. use by journals)

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Legal commercial definition (e.g. use by journals)

Unintentional restrictive

Open Data Commons

Databases are different to simple data (e.g. EU-copyright)

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Open Data Commons Public Domain Dedication and License

(PDDL)

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Open Data Commons Public Domain Dedication and License (PDDL)

Open Data Commons Attribution License (ODC-By)

Open Data Commons Open Database License (ODbL)

Norwegian Licence for Open Government Data (NLOD) 2.0

Digitaliseringsdirektoratet
data.norge.no

https://data.norge.no/norwegian-licence-open-government-data-nlod-

Norwegian Licence for Open Government Data (NLOD) 2.0

Digitaliseringsdirektoratet
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A licence compatible by contract shall mean the following licences:

for all information: Open Government Licence (version 1.0, 2.0 and 3.0), **Creative Commons Attribution Licence (international version 4.0 and norwegian version 4.0)**

for those parts of the information which do not constitute databases: **Creative Commons Attribution Licence (generic version 1.0, 2.0, 2.5 and unported version 3.0) and Creative Commons Navngivelse 3.0 Norge**

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https://data.norge.no/norwegian-licence-open-government-data-nlod-

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https://data.norge.no/norwegian-licence-open-government-data-nlod-

Open Source Software licenses

Special considerations for Software

Liability

Warranty

Modifications

Network use = Distribution?

Open Source Software licenses

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Open Source Software licenses

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initiative
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AGPLv3

GNU GPLv3

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Apache 2.0

PD

SA

https://opensource.org/licenses
https://choosealicense.com/

GitHub

open source initiative
Approved License®

Indices & Controlled vocabularies

License List - maschine readable IDs

on file level
SPDX-License-Identifier: MIT

Approved Licenses - also EC definition of open source license

https://spdx.org/licenses/
https://opensource.org/licenses

Permissive

MIT
BSD

Permissions
- 🟢 Commercial use
- 🟢 Distribution
- 🟢 Modification
- 🟢 Private use

Conditions
- 🔵 License and copyright notice

Limitations
- 🔴 Liability
- 🔴 Warranty

weak

Copyleft

LGPL
MPL

Permissions
- 🟢 Commercial use
- 🟢 Distribution
- 🟢 Modification
- 🟢 Patent use
- 🟢 Private use

Conditions
- 🔵 Disclose source
- 🔵 License and copyright notice
- 🔵 Same license (library)
- 🔵 State changes

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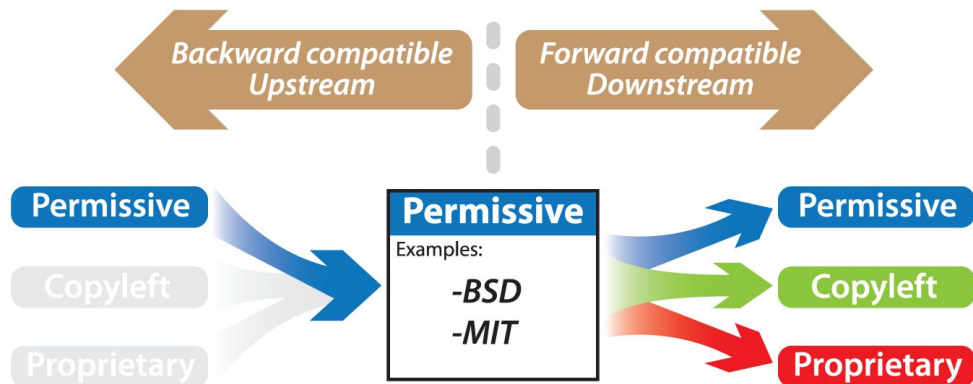- 🟢 Patent use
- 🟢 Private use

Conditions
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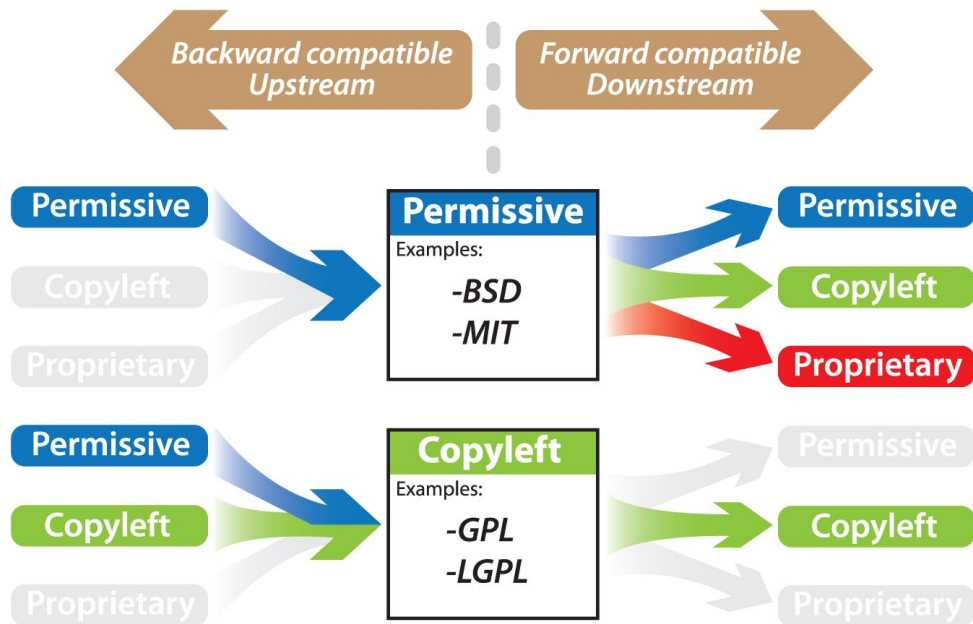- 🔵 Same license
- 🔵 State changes

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http://software-carpentry.org/

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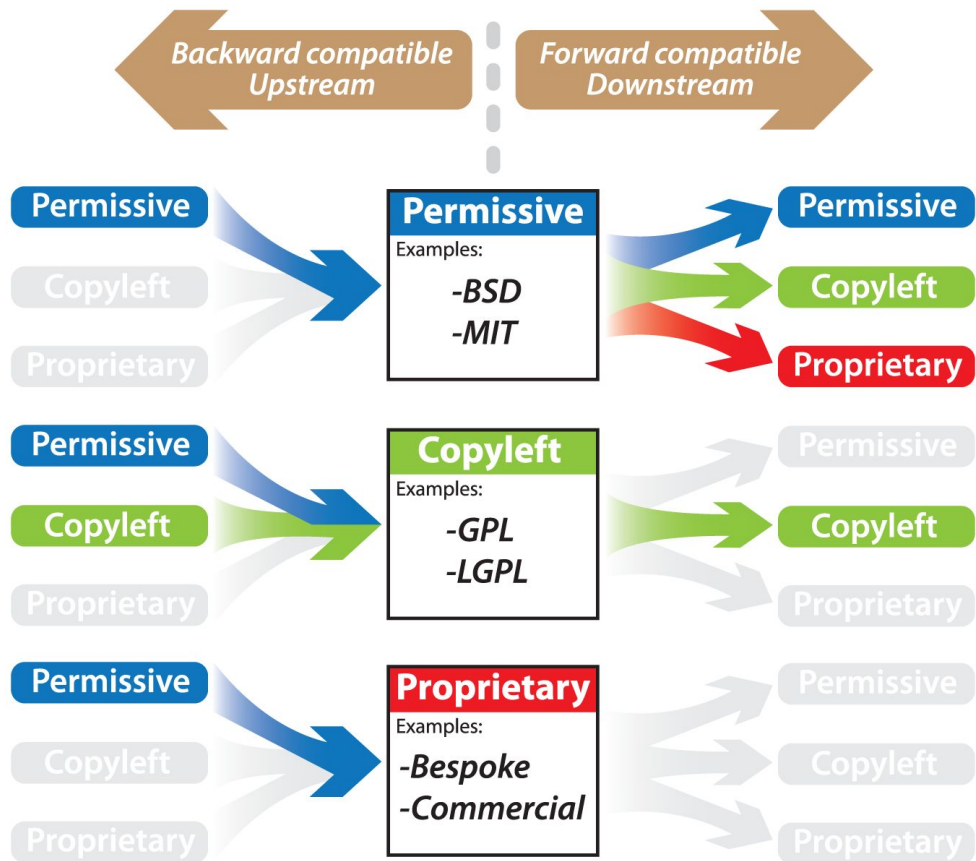
Does it hold in court?

Yes!

Busybox GPL lawsuits 2007-2009

Free Software Foundation, Inc. v. Cisco Systems, Inc., 2009

...

Does it hold in court?

Yes!

CREATIVE COMMONS ATTRIBUTION-SHAREALIKE LICENSE ENFORCED IN GERMANY

by mike

The Creative Commons Attribution-ShareAlike 3.0 Unported license (BY-SA) has been enforced by a judicial injunction in Germany. Legal analysis will be added to our case law database in the coming days. Till Jaeger reported the case (in German; English machine

Unintended consequences

klmr commented on 10 Jul 2018 · edited ▾

The GPLv3 license creates some nontrivial problems for use of this code in scientific software. This might be reason enough to **reconsider whether GPL is the best fit for this project**, and whether its restrictions are intended by the authors, or merely accidental.

For reference, Titus C Brown has argued forcefully and influentially that copyleft licenses are non-open, and therefore impede Open Science.

In fact, Lior Pachter, one of the major proponents of non-free software in bioinformatics has subsequently conceded that he was wrong about the non-free licensing of the Kallisto software.

(This is related to, but distinct from #478.)

☺ 👍 10

Unintended consequences

Nextflow
@nextflowio

Replying to @karinlag

The proper license for Nextflow pipelines is GPL because your program (the pipeline) is dynamically linked with the Nextflow runtime that's distributed as GPL. gnu.org/licenses/gpl-f...

9:42 AM · Jul 10, 2018 · Twitter Web Client

However, this was not our original intention. We don't consider workflow applications to be subject to the GPL copyleft obligations of the GPL even though they may link dynamically to Nextflow functionality through normal calls and we are not interested to enforce the license requirement to third party workflow developers and organizations.

Unintended consequences

Goodbye zero, Hello Apache!

👤 Paolo Di Tommaso   📅 24 October 2018

Today marks an important milestone in the Nextflow project. We are thrilled to announce three important changes to better meet users' needs and ground the project on a solid foundation upon which to build a vibrant ecosystem of tools and data analysis applications for genomic research and beyond.

Apache license

Nextflow was originally licensed as GPLv3 open source software more than five years ago. GPL is designed to promote the adoption and spread of open source software and culture. On the other hand it has also some controversial side-effects, such as the one on derivate works and legal implications which make the use of GPL released software a headache in many organisations. We have previously discussed these concerns in this blog post and, after community feedback, have opted to change the project license to Apache 2.0.

This is a popular permissive free software license written by the Apache Software Foundation (ASF). Software distributed with this license requires the preservation of the copyright notice and disclaimer. It allows the freedom to use the software for any purpose, to distribute it, to modify it, and to distribute modified versions of the software without dictating the licence terms of the resulting applications and derivative works. We are sure this licensing model addresses the concerns raised by the Nextflow community and will boost further project developments.

https://www.nextflow.io/blog/2018/goodbye-zero-hello-apache.html

1. What is the StackOverflow license for code you copy and paste?
2. A journal requests that you release your software during publication. You have copied a portion of the code from another package, which you have forgotten. Can you satisfy the journal's request?
3. You want to fix a bug in a project someone else has released, but there is no license. What risks are there?
4. How would you ask someone to add a license?
5. You incorporate MIT, GPL, and BSD3 licensed code into your project. What possible licenses can you pick for your project?
6. You do the same as above but add in another license that looks viral. What possible licenses can you use now?
7. Do licenses apply if you don't distribute your code? Why or why not?
8. Which licenses are most/least attractive for companies with proprietary software?

DO

Alway add a (standard) license

Ideally: File level license indication

Be aware of the IPR situation of the code you (re-)use

DON'T

Invent your own license

Link to RDMkit:
https://rdmkit.elixir-europe.org/

Next:

Digital Life 2021: Know-how workshop on IPR in digital biotech
Data life cycle: Sharing | RDMkit
Your tasks: Licensing | RDMkit
EUDAT license chooser for data and software
Choose a License
Licenses & Standards | Open Source Initiative

CodeRefinery workshop March 12-14 and 19-21, 2024

https://coderefinery.org/

Life Science Data Management: Planning workshop

Generate a data management plan for a Life Science research project that will meet the requirements of Norwegian institutions

Tid og sted: 5. juni 2024 09:00 – 6. juni 2024 13:00, online

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4. As mentionned in 3., the easiest is to fill an issue and explain the reasons why you would like to use this software (or update it).

5. Combining software with different licenses can be tricky and it is important to understand compatibilities (or lack of compatibilities) of the various licenses. GPL license is the most protective (BSD and MIT are quite permissive) so for the resulting combined software you could use a GPL license. However, re-licensing may not be necessary.

6. Derivative work would need to be shared under this viral license (e.g. AGPL or GPL), unless the components are only plugins or libraries.

7. If you keep your code for yourself, you may think you do not need a license. However, remember that in most companies/universities, your employer is "owning" your work and when you leave you may not be allowed to "distribute your code to your future self". So the best is always to add a license!

8. The least attractive licenses for companies with proprietary software are licenses where you would need to keep an open license when creating derivative work. For instance GPL and and AGPL. The most attractive licenses are permissive licenses where they can reuse, modify and relicense with no conditions. For instance MIT, BSD and Apache License.

Thank you!

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