

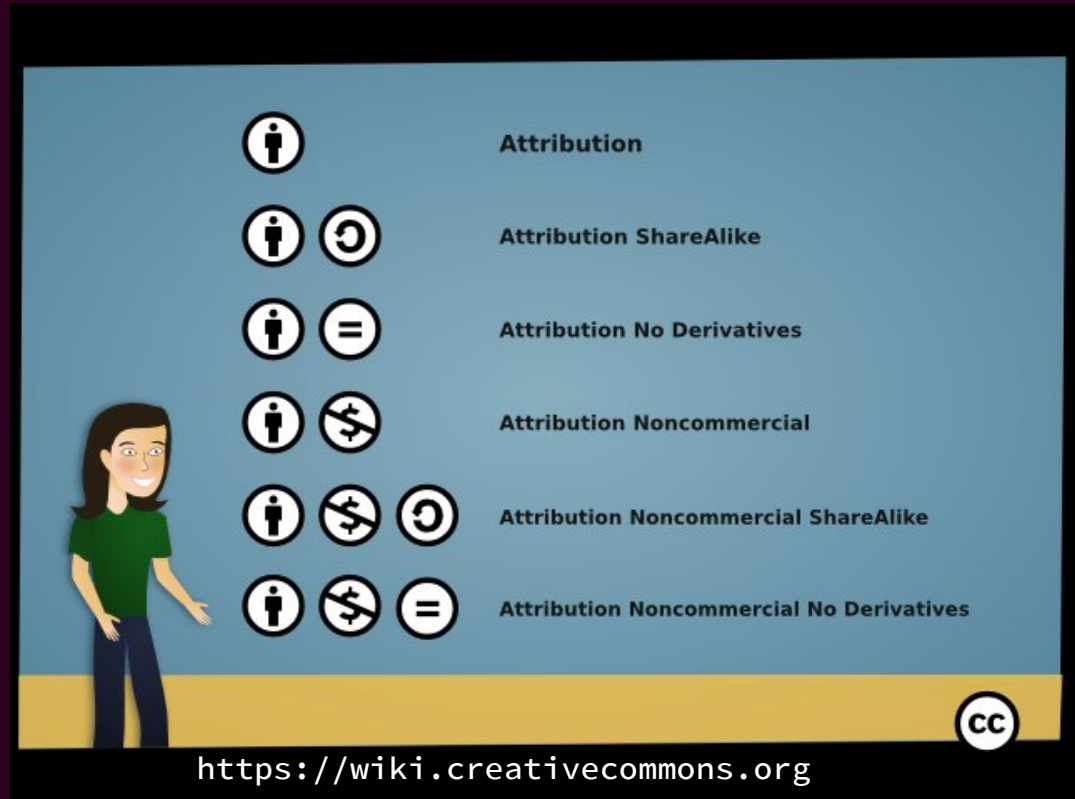
Degrees of Openness [°0]

Digital content may be licensed in an open way,
but how open is its reuse and modification?







In other words...


The license of content may be permissive, but if you want to use it, do you need proprietary software or a specific architecture?

Look at all the...



A woman with dark hair, wearing a green shirt and blue pants, stands on the left side of a light blue screen, pointing towards a list of Creative Commons license icons and their names. The icons are arranged in a vertical column, and the names are listed to their right. The screen has a yellow footer bar with the Creative Commons logo and a URL.

	Attribution
	Attribution ShareAlike
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	Attribution Noncommercial ShareAlike
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empty hands.



Licenses tell us what, not how.

Today, digital content is created with software that uses an operating system running on top of physical hardware. Sometimes it is even manifested in physical reality via mobile device displays, point-of-sale screens, 3d-printers, etcetera. Each component in this chain may or may not be open and or free.

WTFC?

Why would anybody care about this?

This idea is actually an instrument to help communicate the ideas about FLOSS and Open Hardware by enabling publishers (and users) to become aware of open alternatives to licensing, media-types, proprietary software, operating systems and hardware.

DANGER!!!

- Most of the open source evangelists propose that everyone uses open software. While this is a good thing, in general, they often forget that many people still use archaic proprietary software.
- Example:
 - Try sending your University Telegram Group an .xcf file. Many of them won't even know what that is, let alone be able to install the software needed. Those who just use mobile devices, for example, will not have access to the file. Therefore, this file format is not completely open.

°0 is an additive and binary system

- With each layer of declared openness, more information is shared and the degree of openness increases.
- Each layer is a binary value, i.e. either true or false, and is composed of at least 1 and up to 5 values.

(Examples to follow.)

What can °0 be composed of?

- L. The permissiveness of the license
- F. The media type(s) or format used
- P. The program needed for modification
- S. The operating system needed for the program
- H. The hardware needed by the operating system

L. The permissiveness of the license

- Is the content published under a license that allows the user to modify it? (Commercial or non-commercial is irrelevant)
- Examples:
 - PD → 1°0
 - WTFPL → 1°0
 - © → 0°0

F. The media type(s) or format used

- Is it proprietary or open? (Whether or not it can be converted is not the issue.)
- Examples:
 - .cdr → 0°0
 - .ai → 0°0
 - .png → 1°0
 - .svg → 1°0

P. The program needed

- Is a specific piece of software “needed” in order to use / modify the content?
- Are there alternatives to the proprietary software that work just as well, or not?
- Examples:
 - Word / Libreoffice → 0°0
 - Photoshop / Krita → 0°0
 - .rtf / .txt → 0°0

S. The operating system needed

- Today, most types of content can be opened and modified with most OS's, but not always...
- Examples:
 - .dmg → 0°0
 - .dll → 0°0
 - .jpg → 1°0
 - .ogv → 1°0

H. The hardware needed by the OS

- Like the OS needed by the software, certain hardware is needed by the OS¹.
- Examples:
 - .apk → 0°0
 - .psd → 0°0
 - .pdf → 1°0

¹excluding virtualisation / emulation, because those are specialist issues.

Binary values

- In looking at openness, we are only concerned with whether or not the content is open.
- The more information given about the content, the greater the binary (and decimal) value.
- Examples:
 - $11^{\circ}0$ vs. $11000^{\circ}0$
 - $11^{\circ}0 \rightarrow 3^{\circ}0$
 - $11000^{\circ}0 \rightarrow 24^{\circ}0$

• Copyridded content

- Copyright of a proprietary media type that needs proprietary software on a proprietary system with proprietary hardware would be absolute zero. However, copyright on an open file type that can be used with any system gets points for being “somewhat” open.
 - 00000°0 / 0°0 (@pic.indd) → Absolute ZERO!
 - 01111°0 / 15°0 (@pic.png)

Just an open license.

- A merely CC-licensed .dll file would have only one true value (because the other null values are not declared):
 - $1^{\circ}0 \rightarrow 1^{\circ}0$
- Declaring the rest of the openness is a de facto increase of the openness (compare to @pic.png from the previous slide):
 - $10000^{\circ}0 \rightarrow 16^{\circ}0$

All in.

- A CC-licensed .png
 - 11111°0 → 31°0



Future Work

- Discussion about the openness of various formats
- Outreach → CC, FSF, etc.
- Openness as a Service (OaaS)
- Stickers

Thanks to

- My assistant in 2008 that virus-infected my windows computer while I was on vacation and forced me to finally use that Knoppix CD to get to my files and changed the way that I thought about access to data.
- RA Dr. Ina Kaulen
- Kłoschi