

Contribution ID: 98

Type: Talk (15min + 5min)

## Balancing the Access to Science and Competing Interests in Software Licenses

Wednesday, March 6, 2024 4:30 PM (20 minutes)

Article 27 of the Universal Declaration of Human Rights establishes everyone's right to participate and benefit from the advancement of science. At the same time, it articulates the right to protection of authors' moral and material interests resulting from their scientific activity. Copyright laws grant exclusive rights over novel creative work to its authors who can then decide on the conditions of use, distribution and adaptation of their work. It is up to them to reconcile the apparent conflict between own interests and those of their communities in the terms of the license.

The principles of Open Science require the publication of the data in a widely accessible way without requiring the authors to allow others to adapt or modify the work (for example in the CC-BY-ND license). When we apply those principles to research software, it is also necessary to consider specific characteristics of software. As the function of software is to instruct our devices and machines to work for us, it can be viewed as a digital tool that acts in the way it was programmed. It is the best interest of the users to fully control the software they depend on. This can only be achieved if the license grants the user the freedom to run, copy, distribute, study, change and improve the software, which was formalized as four essential freedoms by the Free Software Foundation. Open Source Initiative later rephrased this conditions in ten criteria defining open source. In contrast to Open Science allowing anyone to modify the program without discrimination to any group or activity is provided in all licenses approved for free and open source software (FOSS).

Another characteristic of software is the functional difference between source code on one hand and obfuscated or machine code on the other. The source code is required for effective modification of the program for a software developer, while the obfuscated or machine code is only useful to execute the instructions specified in the software on a computer. To assure that the program and all its derivatives remain FOSS in any of the future versions a concept called copyleft was invented. The copyleft is a legal requirement that demands the release of the source code if the program is distributed. This way it safeguards the users against malicious actors and allows continuous collaboration of all contributors.

In this presentation we will give an overview of a few common FOSS licenses (such as MIT, Apache, LGPL, GPL, and AGPL) and analyze the main differences between terms and conditions in each of them. We will also discuss the possibilities of licensing research software that strike the right balance between everyone's essential rights and freedoms.

## Slot length

**Primary authors:** STARY, Tomas (Karlsruhe Institute of Technology); SCHAUFELBERGER, Matthias (Karlsruhe Institute of Technology); HOUILLON, Marie; LOEWE, Axel (Karlsruhe Institute of Technology)

Presenter: STARY, Tomas (Karlsruhe Institute of Technology)

Session Classification: Policies and Legal Aspects

Track Classification: RSE Research and Communities: Policies and Licences in RSE