Global Open Innovation and the Role of CC Taiwan

全球開放創新與 CC Taiwan 的角色

v.20251116

Legal Adviser @ Herding Open Source Management Consultants Ltd. & Gemly Int’ l IPR Office

群牧開源管理顧問有限公司 / 鈞理知識產權事務所 法制顧問

Lucien Cheng-hsia Lin / 林誠夏

Email: lucien.cc@gmail.com

LinkedIn: https://tw.linkedin.com/in/lucienchlin

SPE-International Organizations and Impacts-2025.11.27

lucien.cc@gmail.com

林誠夏 / Lucien C.H. Lin

Current Positions:

1. Legal Advisor, Herding Open Source Management Consultants Ltd. / Gemly International Patent & Trademark Office

2. Chapter Lead of Creative Commons Taiwan; Co-founder, Open Source Legal Network Taiwan

3. Independent Director, GeoThings Inc.

Previous and Current Roles:

1. Civilian Representative Member of Government Open Data Advisory Committees for the Executive Yuan, National Development Council, Ministry of Culture, National Palace Museum, Examination Yuan, and Ministry of Civil Service.

2. Municipal Advisor, Public Participation Section, Taipei City Government

http://tw.linkedin.com/in/lucienchlin

Outline

1. What is Open Source?
2. General Public License
3. Creative Commons Licenses and CC TAIWAN

Here is today’s outline, with three main parts.
Part 1: What is Open Source?
Part 2: The key idea behind open source — the General Public License (GPL).
Part 3: Creative Commons Licenses and CC Taiwan, and how open innovation helps us build global public-interest projects.

1. What is Open Source?

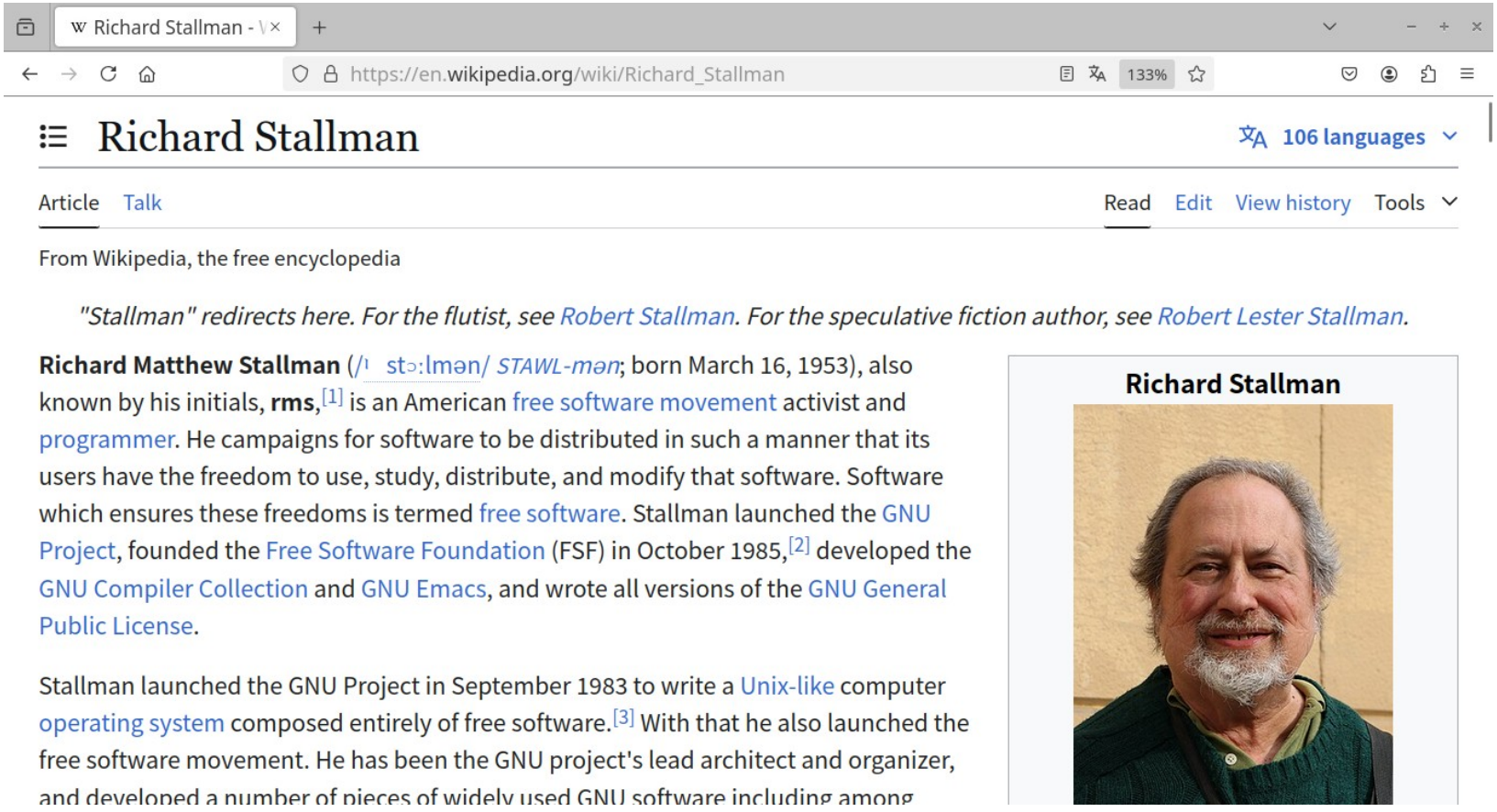
Part 1: What is Open Source?
To begin, let’s watch a short Lego-style video that explains open source.

The Core Spirit of Free and Open Source

So, to summarize the video:The core spirit of Free and Open Source is simple

If a software project can be freely modified and shared, it's a Free and Open Source project.

— If you can freely modify a software project and share it with others, then it’s basically Free and Open Source.



https://en.wikipedia.org/wiki/Richard_Stallman

The video also mentioned Richard Stallman and the story of the Xerox laser printer.

FAIR USE @ https://medium.com/curious-burrows/the-story-of-open-source-so-far-bfcb685d85a4

In short:MIT's AI Lab had a Xerox laser printer that often messed up batch printing. Stallman and his colleagues had to sort pages manually after work — despite working in an AI Lab, they joked that they were doing "manual labor" everyday. So they asked Xerox for the source code in order to fix the problem by themselves. At the first time, Xerox agreed. But the next year MIT bought a new model, and the printing problem happened again. Stallman asked for the source code again, but this time Xerox refused — because software had become copyright-protected after the 1970s, and the legal department said no.

什麼是 GNU ： https://www.gnu.org.ua/graphics/whatsgnu.zh-tw.html

This moment pushed Stallman to start the GNU Project

GNU Project / GNU Linux

GNU is Not Unix

Which later combined with the Linux kernel to form the Linux operating system we know today.“GNU” itself means GNU is Not Unix

The right to use, modify, and distribute

— a playful idea about building a system where everyone has the freedom to use, modify, and share the code.

Source Code

And the key to all of this is Source Code.

Source Code

Human-readable programming language that helps a subsequent party can understand or inspect the Program logic .

What is source code? It is the human-readable form of a program — the form that lets the next person understand the logic and make changes.

Source Code

Preferred form to make modifications

Or simply put: The preferred form for making modifications.

The real open source=

Full transfer of control to

downstream users

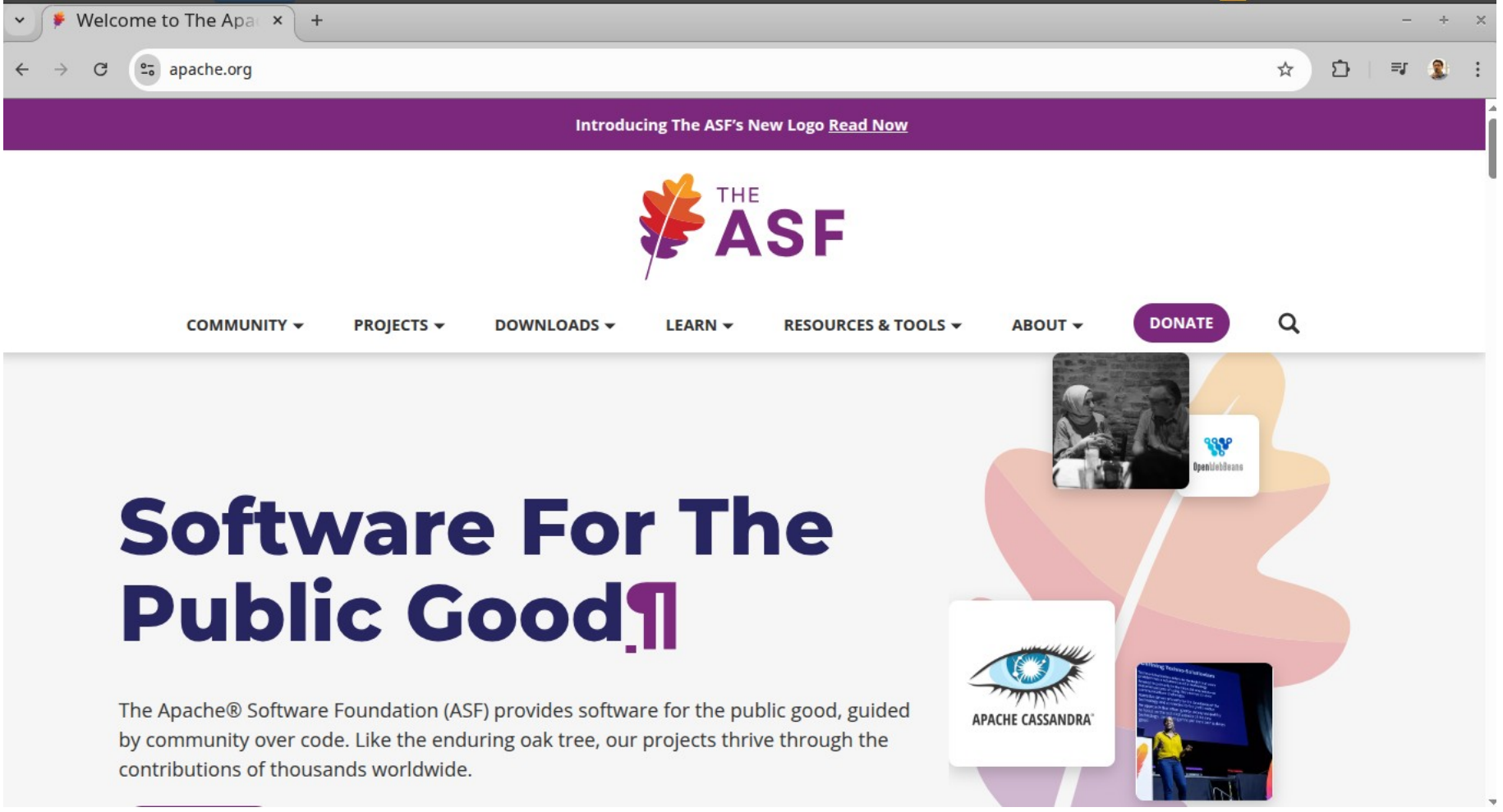
as fundamental infrastructure

The original spirit of open source is to return control to the next person — the modifier, the collaborator. And over 30 to 50 years of development, open source has become part of the global digital infrastructure, because it can be reused, improved, and independently developed.

Here comes the

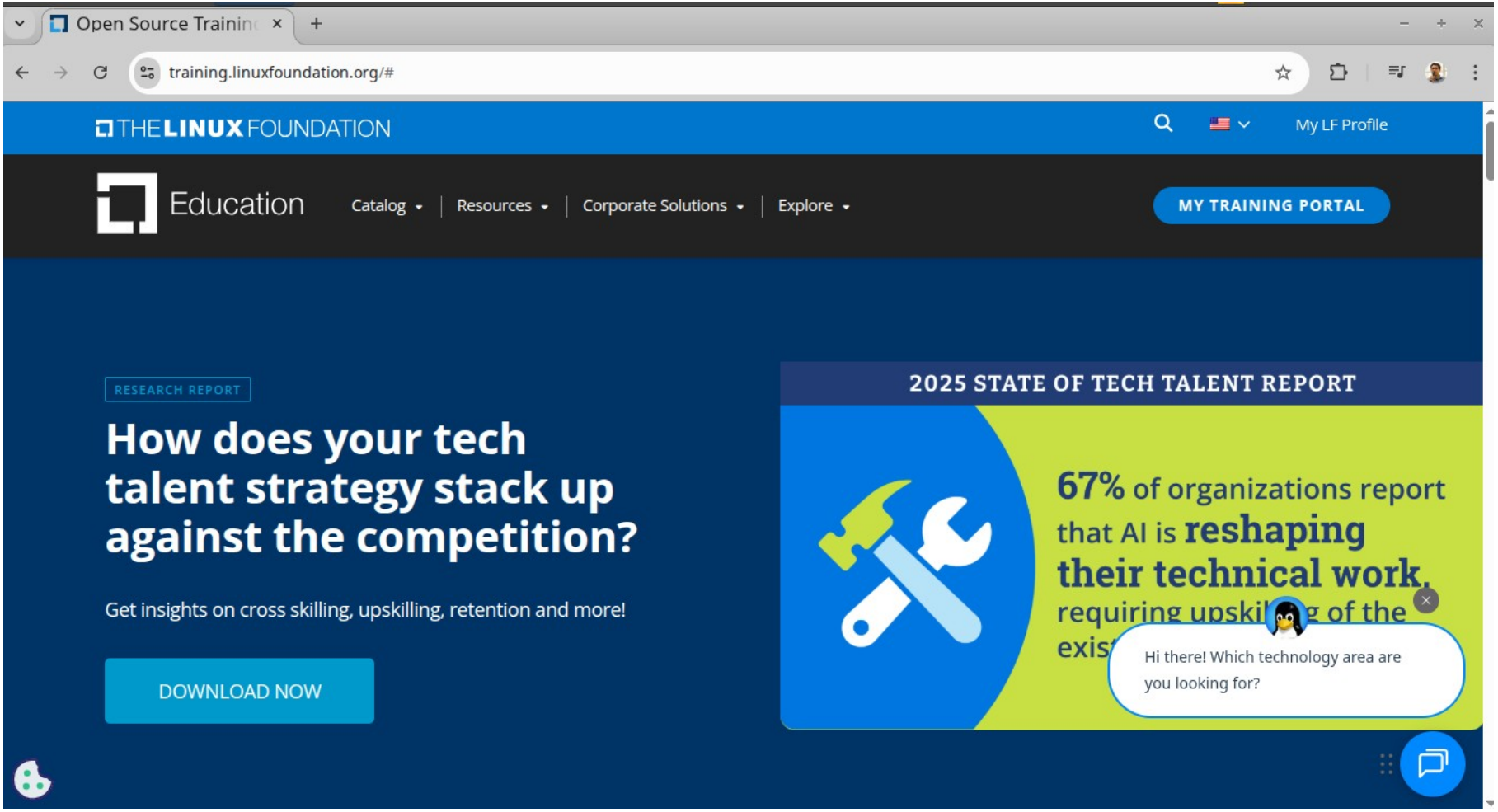
Open Steward

After the 1990s, many organizations help coordinate open source collaboration.



https://www.apache.org/

For example: The Apache Software Foundation — without its HTTP server, the internet could not have grown globally in the way it did.



https://training.linuxfoundation.org/

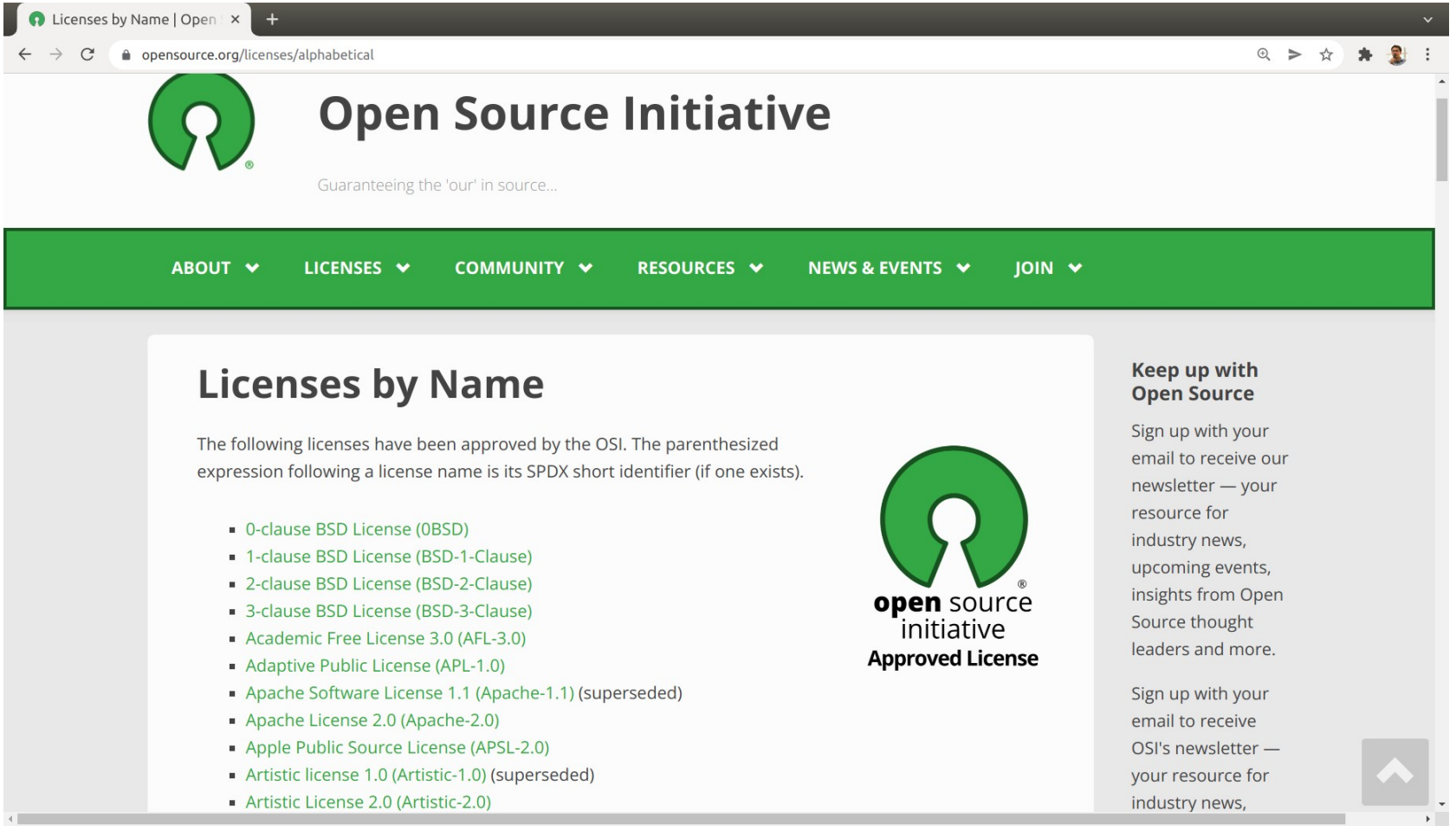
And the Linux Foundation — many cross-border industrial projects now run under this foundation’s collaborative structure.

https://www.youtube.com/watch?v=yVpbFMhOAwE

Let’s watch another video, “How Linux is Built”, to see how open source becomes part of everyday life.

2. General Public License

Part 2: General Public License. Why can open source succeed? Because we have a global, consistent licensing system that everyone can follow.



https://opensource.org/licenses/alphabetical

The Open Source Initiative (OSI) lists all licenses that meet the open source definition.

0-clause BSD License (0BSD), 1-clause BSD License (BSD-1-Clause) ,2-clause BSD License (BSD-2-Clause) ,3-clause BSD License (BSD-3-Clause) ,Academic Free License 3.0 (AFL-3.0) ,Adaptive Public License (APL-1.0) ,Apache Software License 1.1 (Apache-1.1) (superseded) ,Apache License 2.0 (Apache-2.0) ,Apple Public Source License (APSL-2.0) ,Artistic license 1.0 (Artistic-1.0) (superseded) ,Artistic License 2.0 (Artistic-2.0) ,Attribution Assurance License (AAL) ,Boost Software License (BSL-1.0) ,3-clause BSD License ,2-clause BSD License ,1-clause BSD License ,0-clause BSD license ,BSD-3-Clause-LBNL ,BSD+Patent (BSD-2-Clause-Patent) ,CERN Open Hardware Licence Version 2 - Permissive ,CERN Open Hardware Licence Version 2 - Weakly Reciprocal ,CERN Open Hardware Licence Version 2 - Strongly Reciprocal ,CeCILL License 2.1 (CECILL-2.1) ,Common Development and Distribution License 1.0 (CDDL-1.0) ,Common Public Attribution License 1.0 (CPAL-1.0) ,Common Public License 1.0 (CPL-1.0) (superseded) ,Computer Associates Trusted Open Source License 1.1 (CATOSL-1.1) ,Cryptographic Autonomy License v.1.0 (CAL-1.0) ,CUA Office Public License Version 1.0 (CUA-OPL-1.0) (retired) ,Eclipse Public License 1.0 (EPL-1.0) (superseded) ,Eclipse Public License 2.0 (EPL-2.0) ,eCos License version 2.0 (eCos-2.0) ,Educational Community License, Version 1.0 (ECL-1.0) (superseded) ,Educational Community License, Version 2.0 (ECL-2.0) ,Eiffel Forum License V1.0 (EFL-1.0) (superseded) ,Eiffel Forum License V2.0 (EFL-2.0) ,Entessa Public License (Entessa) ,EU DataGrid Software License (EUDatagrid) ,European Union Public License 1.2 (EUPL-1.2) (links to every language's version on their site) ,Fair License (Fair) ,Frameworx License (Frameworx-1.0) ,Free Public License 1.0.0 (0BSD) ,GNU Affero General Public License version 3 (AGPL-3.0) ,GNU General Public License version 2 (GPL-2.0) ,GNU General Public License version 3 (GPL-3.0) ,GNU Lesser General Public License version 2.1 (LGPL-2.1) ,GNU Lesser General Public License version 3 (LGPL-3.0) ,Historical Permission Notice and Disclaimer (HPND) ,IBM Public License 1.0 (IPL-1.0) ,Intel Open Source License (Intel) (retired) ,IPA Font License (IPA) ,ISC License (ISC) ,Jabber Open Source License (retired) ,LaTeX Project Public License 1.3c (LPPL-1.3c) ,Lawrence Berkeley National Labs BSD Variant License (BSD-3-Clause-LBNL) ,Licence Libre du Québec – Permissive (LiLiQ-P) version 1.1 (LiliQ-P) ,Licence Libre du Québec – Réciprocité (LiLiQ-R) version 1.1 (LiliQ-R) ,Licence Libre du Québec – Réciprocité forte (LiLiQ-R+) version 1.1 (LiliQ-R+) ,Lucent Public License ("Plan9"), version 1.0 (LPL-1.0) (superseded) ,Lucent Public License Version 1.02 (LPL-1.02) ,Microsoft Public License (MS-PL) ,Microsoft Reciprocal License (MS-RL) ,MirOS Licence (MirOS) ,MIT License (MIT) ,MIT No Attribution License (MIT-0) ,MITRE Collaborative Virtual Workspace License (CVW) (retired) ,Motosoto License (Motosoto) ,Mozilla Public License 1.0 (MPL-1.0) (superseded) ,Mozilla Public License 1.1 (MPL-1.1) (superseded) ,Mozilla Public License 2.0 (MPL-2.0) ,Mulan Permissive Software License v2 (MulanPSL - 2.0) ,Multics License (Multics) ,NASA Open Source Agreement 1.3 (NASA-1.3) ,Naumen Public License (Naumen) ,Nethack General Public License (NGPL) ,Nokia Open Source License (Nokia) ,Non-Profit Open Software License 3.0 (NPOSL-3.0) ,NTP License (NTP) ,OCLC Research Public License 2.0 (OCLC-2.0) ,Open Group Test Suite License (OGTSL) ,Open Software License 1.0 (OSL-1.0) (superseded) ,Open Software License 2.1 (OSL-2.1) (superseded) ,Open Software License 3.0 (OSL-3.0) ,OpenLDAP Public License Version 2.8 (OLDAP-2.8) ,OSET Public License version 2.1 ,PHP License 3.0 (PHP-3.0) (superseded) ,PHP License 3.01 (PHP-3.01) ,The PostgreSQL License (PostgreSQL) ,Python License (Python-2.0) (overall Python license) ,CNRI Python license (CNRI-Python) (CNRI portion of Python License) ,Q Public License (QPL-1.0) ,RealNetworks Public Source License V1.0 (RPSL-1.0) ,Reciprocal Public License, version 1.1 (RPL-1.1) (superseded) ,Reciprocal Public License 1.5 (RPL-1.5) ,Ricoh Source Code Public License (RSCPL) ,SIL Open Font License 1.1 (OFL-1.1) ,Simple Public License 2.0 (SimPL-2.0) ,Sleepycat License (Sleepycat) ,Sun Industry Standards Source License (SISSL) (retired) ,Sun Public License 1.0 (SPL-1.0) ,Sybase Open Watcom Public License 1.0 (Watcom-1.0) ,Universal Permissive License (UPL) ,University of Illinois/NCSA Open Source License (NCSA) ,Upstream Compatibility License v1.0 ,Unicode Data Files and Software License ,The Unlicense ,Vovida Software License v. 1.0 (VSL-1.0) ,W3C License (W3C) ,wxWindows Library License (WXwindows) ,X.Net License (Xnet) ,Zero-Clause BSD (0BSD) ,Zope Public License 2.0 (ZPL-2.0) (superseded) ,Zope Public License 2.1 (ZPL-2.1) ,zlib/libpng license (Zlib)

OSI-approved Licenses sorted by name by the date **2021.10.18**: https://opensource.org/licenses/alphabetical

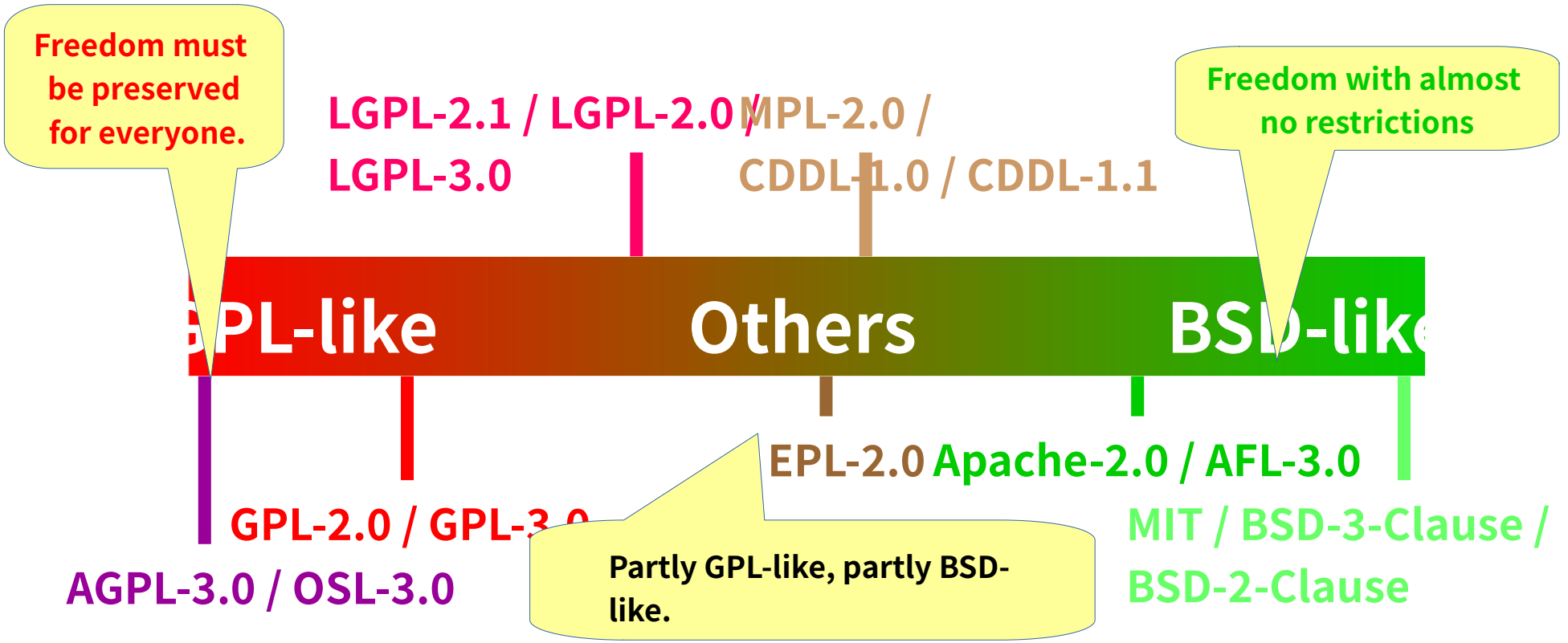
There are many of them,

The Three Main Categories of Open Source Licenses

but we can group them into three types or categories

Table of Common Free and Open Source Software Licenses

Categories	SPDX Identifier	Full name
BSD-like	Apache-1.1	Apache Software License 1.1
	Apache-2.0	Apache License 2.0
	BSD-3-Clause	New BSD License
	MIT	MIT License
	Zlib	Zlib/libpng License
GPL-like	GPL-2.0/3.0	GNU General Public License 2.0/3.0
	LGPL-2.1/3.0	GNU Lesser General Public License 2.1/3.0
	AGPL-3.0	GNU Affero Public License 3.0
Others	CPL/EPL-1.0	Common Public License 1.0
	EPL-2.0	Eclipse Public License 1.0/2.0
	MPL-1.1/2.0	Mozilla Public License 1.1/2.0
	CDDL-1.0	Common Development and Distribution License 1.0
	Artistic-2.0	Artistic License 2.0



GPL-like (red) — “Freedom must be preserved for everyone.”
BSD-like (green) — “Freedom with almost no restrictions.”
Others (yellow) — somewhere in between.

GPL-like(Strictly Copyleft)

1. If you modify a GPL-licensed program or create a derivative work based on it, the resulting derivative work must also be licensed under the GPL.

2. When distributing the object code of a GPL-licensed program to others, you must provide the corresponding source code either at the same time or afterward.

3. The scope of what constitutes a derivative work is determined by abstract interpretations under copyright law and guided by court decisions.

GPL-like is Strict Copyleft. It is strict but simple:
First, If you modify a GPL program or create a derivative work, you must license it under the GPL.
Second, If you distribute object code, you must also provide the source code.

GPL-like(Strictly Copyleft)

GPL

GPL-2.0, GNU General Public License 2.0

GPL-3.0, GNU General Public License 3.0 DRM-free

LGPL

LGPL-2.0, GNU Library General Public License 2.0

LGPL-2.1, GNU Lesser General Public License 2.1

LGPL-3.0, GNU Lesser General Public License 3.0 DRM-free

AGPL

AGPL-3.0, GNU Affero General Public License 3.0 DRM-free

GPL-like Variations include:
GPL v2 / v3 — the basic ones.
Lesser GPL — lesser means more flexible; programs connecting via APIs can use their own license.
Affero GPL — even stricter; if you modify it and offer it as a cloud service (SaaS), users can still request the source code.

BSD-like(Permissive License)

1. Copyright Notice
2. Disclaimer
3. Permits “any further use” afterwards
4. MIT and BSD are key examples

BSD-like is Permissive Licenses. These licenses — like MIT, BSD, and Apache-2.0 — allow nearly any reuse if the user agrees to:
Keeping the original copyright notice and Keeping the disclaimer.
Then everything else is permitted.

Apache-2.0 (Enhanced Commercial Details)

1. **Explicit notice: Trademark rights are not licensed.**
2. **Explicit notice: Warranty may be offered for a fee.**
3. **Software patent license provisions.**
4. **Software patent retaliation clause.**
5. **Compatible with GPL-3.0, but not compatible with GPL-2.0 (due to patent terms).**

Apache-2.0 license is important because Google and many AI frameworks use it. But fundamentally it says just like MIT and BSD license. Just note in Apache-2.0: trademarks are clearly stated not licensed, and contributors must not start software-patent lawsuits within the supply chain.

Others (Something-based Copyleft)

1. MPL, CDDL

   File-based independence and copyleft

2. EPL, CPL

   Module-based independence and copyleft

3. Originally open source parts must remain open source

4. Those allowing file or module separation may adopt custom licenses that do not conflict with these requirements

As for Others type, such as MPL by Mozilla Foundation, CDDL by Sun and Oracle, and CPL EPL made by IBM. These licenses say: If you change the original file, you must release the source code. But new independent modules can be use under any license you choose.

The Six Key Points of FOSS Licensing:

Licenses that comply with the FSF's Free Software Definition or the OSI's Open Source Definition.

1. non-exclusive

2. irrevocable

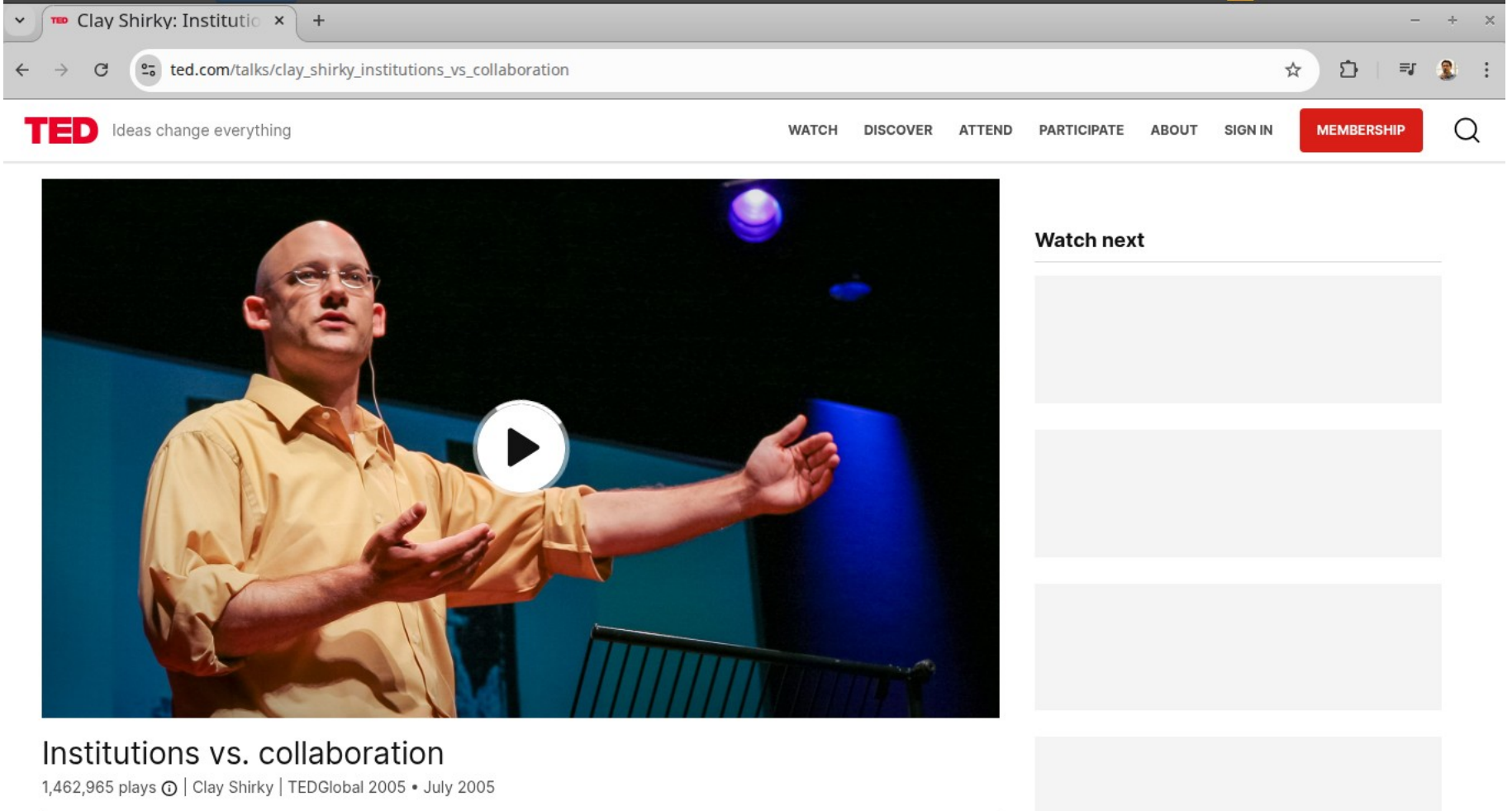
3. royalty-free

4. no warranties

5. for any purpose, perpetual, worldwide

6. freedom to run, copy, modify, and redistribute

Common features of all Free and Open Source Software. No matter which the FOSS license is applied, FOSS always includes:
1. Non-exclusive — everyone can use it.
2. Irrevocable — the author cannot withdraw the permission if you follow the rules.
3. Royalty-free 4. No warranties and 5. can be used worldwide to 6.run, copy, modify, and redistribute.



https://www.ted.com/talks/clay_shirky_institutions_vs_collaboration/

As scholar Clay Shirky said in TED:

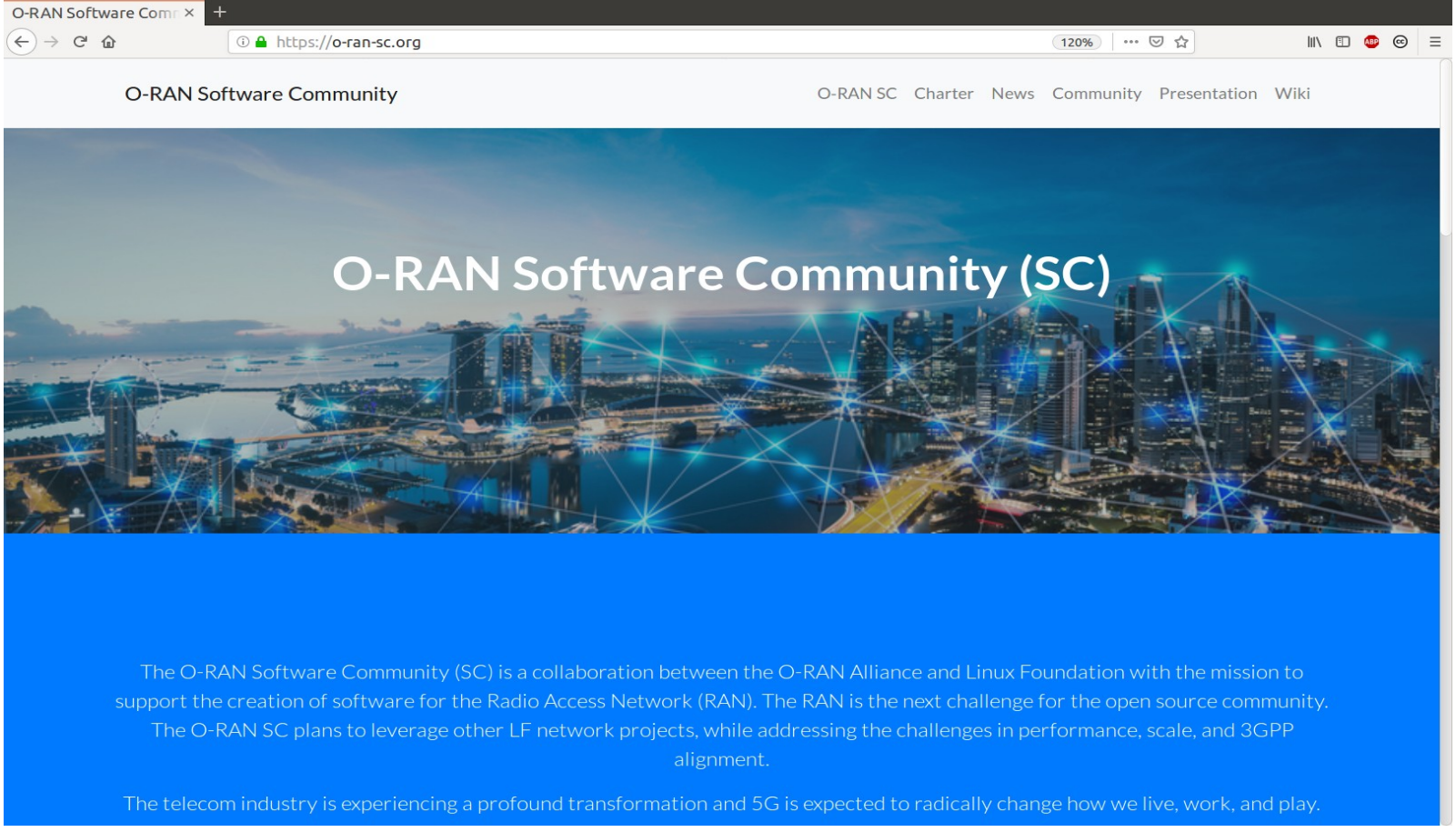
Collaboration without Coordination

Open source can be “collaboration without coordination.”
People do not need to know each other, yet they can work together through general public licenses.

Open Source

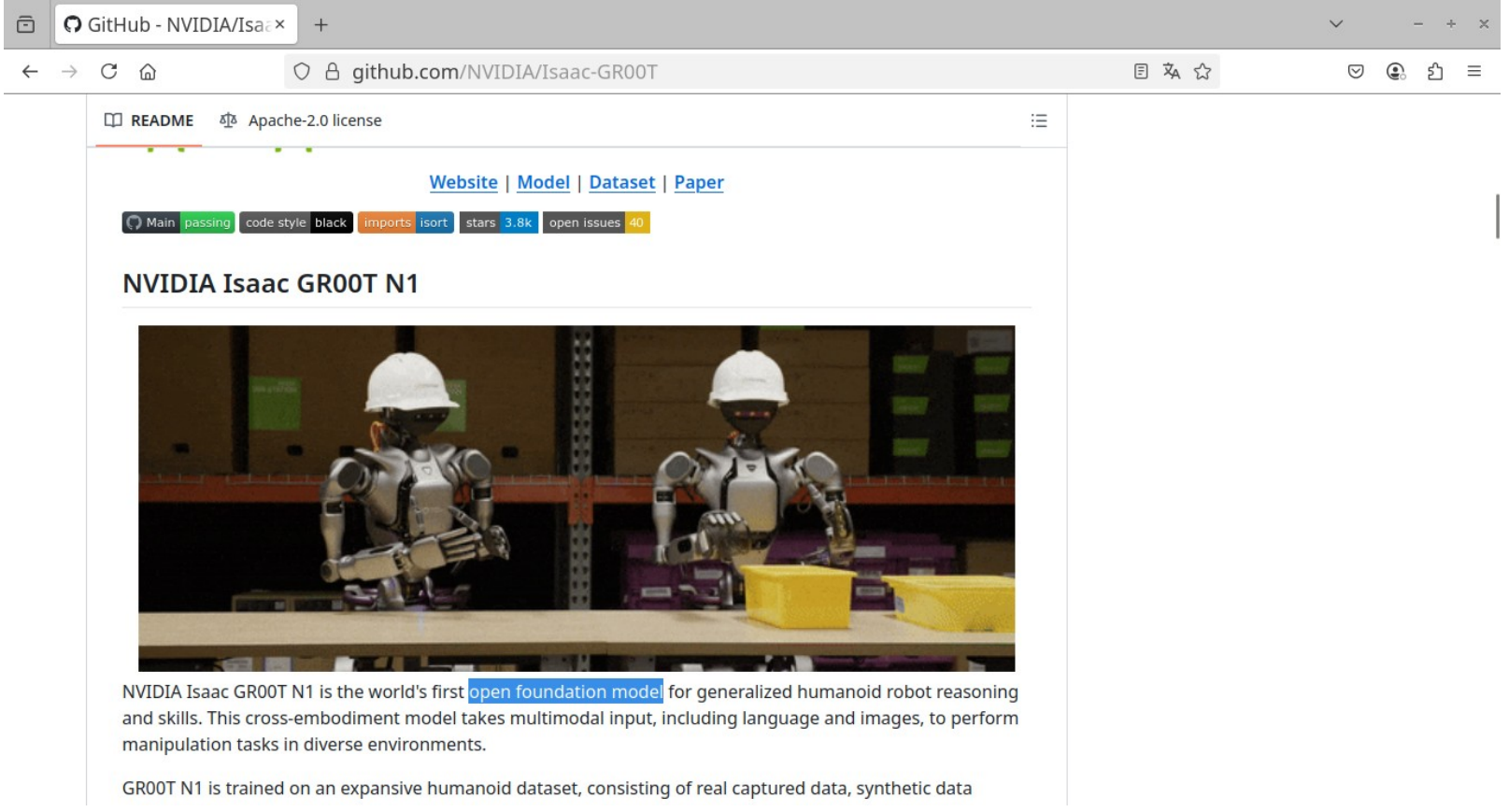
An effective means for contemporary cross-industry competition

Today, open source is a global cooperation tool used in many industries:



https://o-ran-sc.org/

International telecom companies collaborate on open-source 5G radio systems.



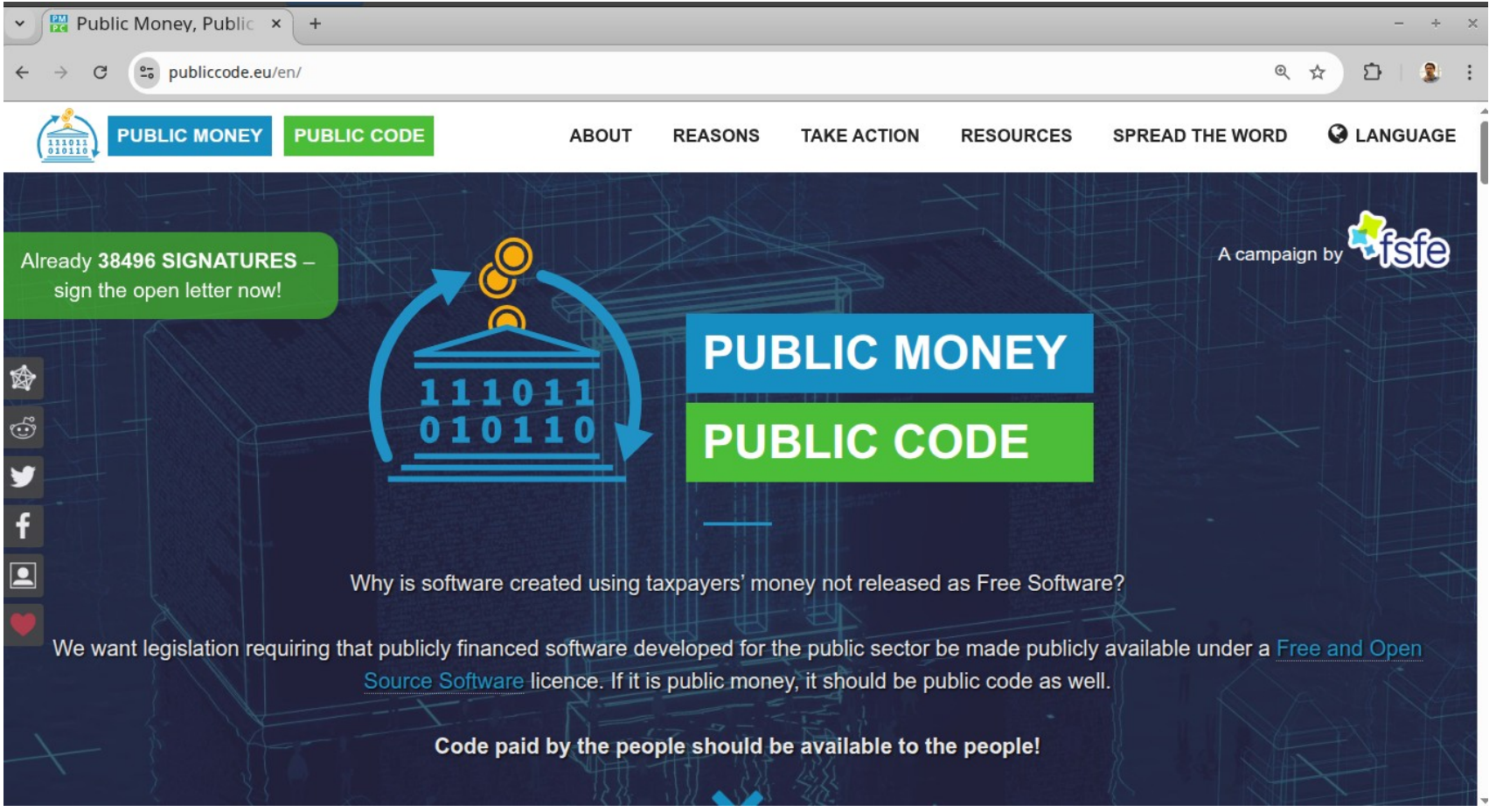
https://github.com/NVIDIA/Isaac-GR00T

NVIDIA open-sourced its Isaac AI robot software to attract partners.

Ecosystem

Building an ecosystem that integrates software and hardware through Open Innovations.

This is how ecosystems are built through open innovation.

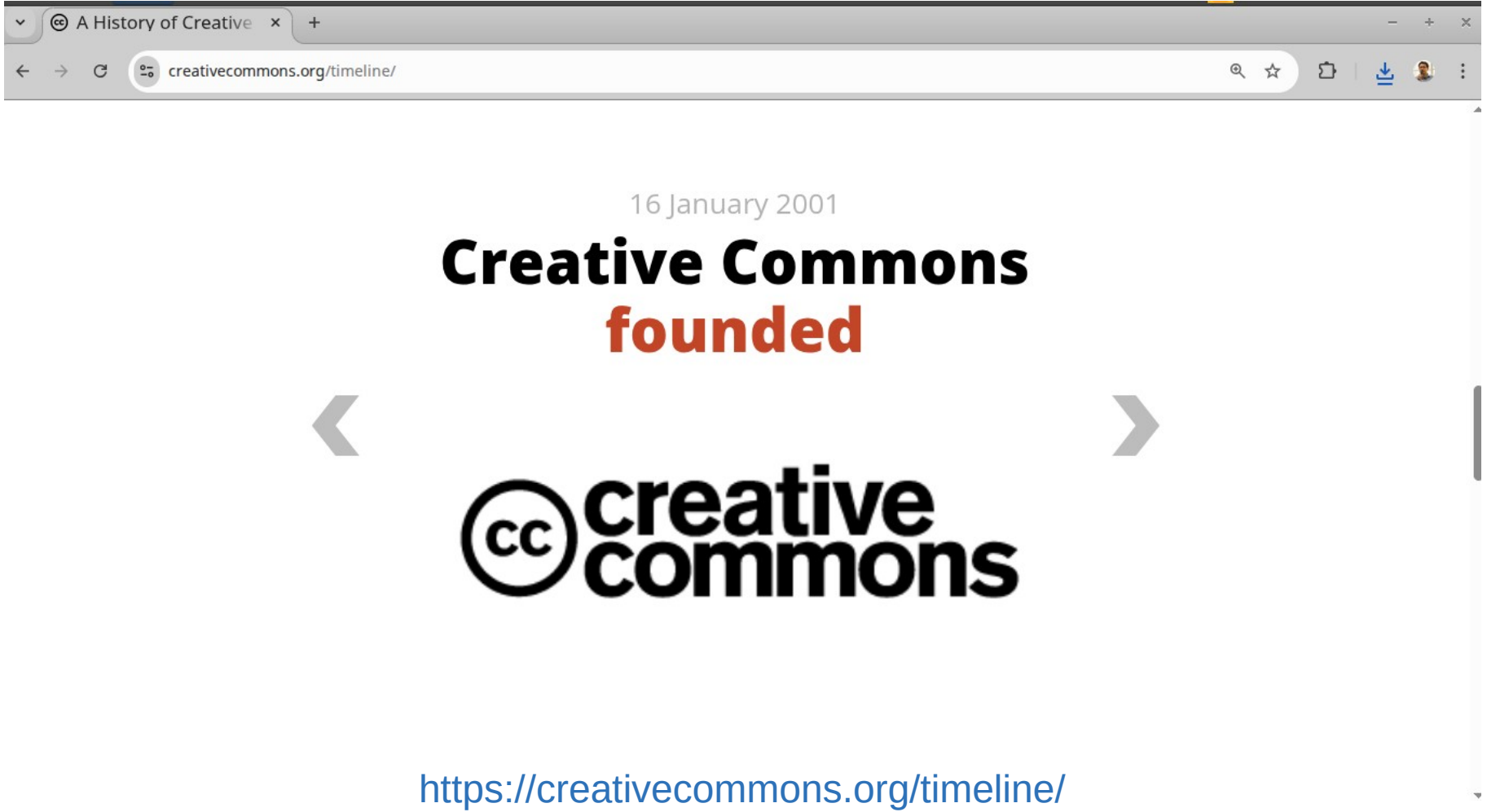


https://publiccode.eu/en/

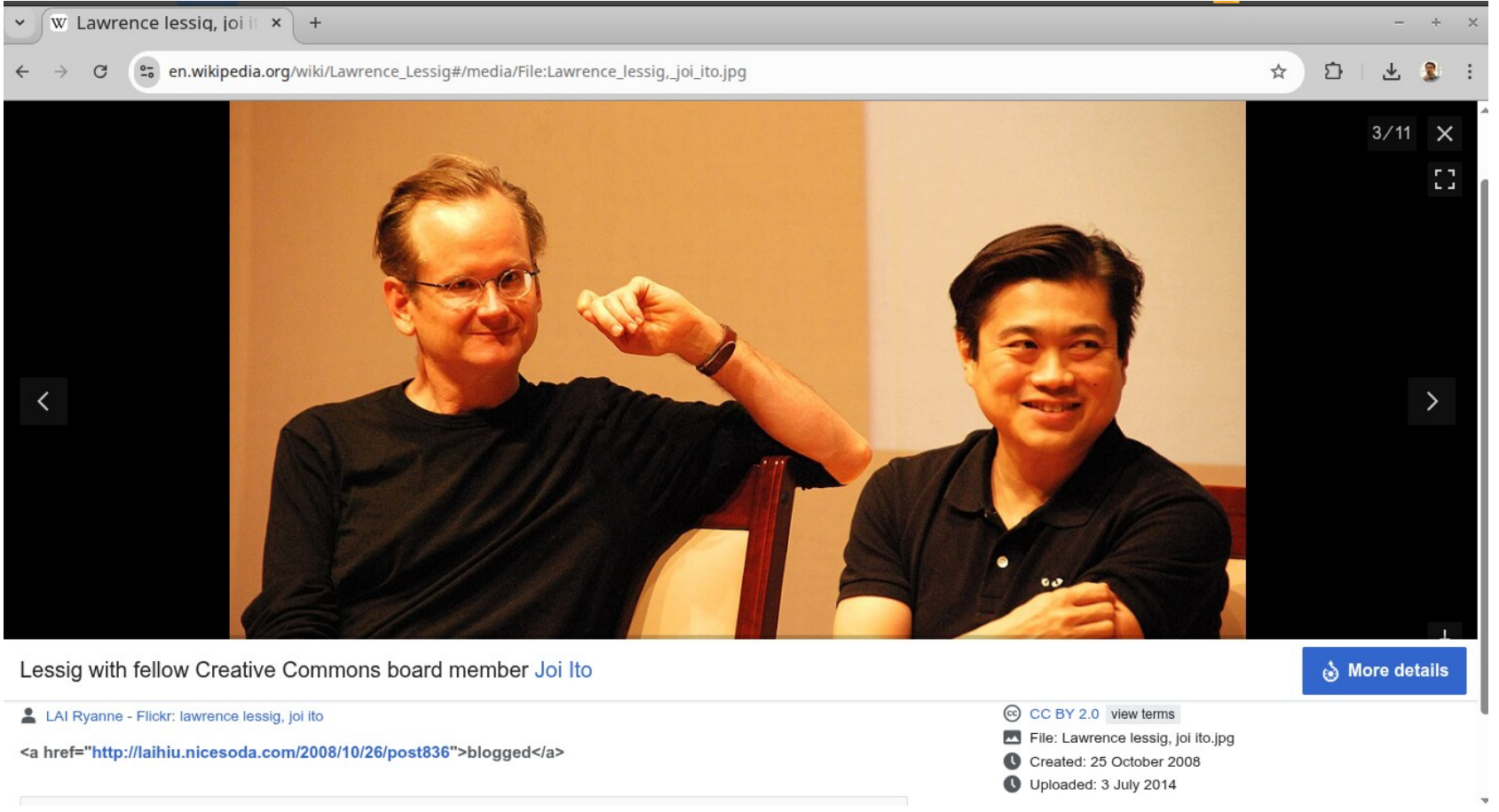
Public policy also joins this trend. The Free Software Foundation Europe promotes Public Money, Public Code, encouraging governments to use open source or release their own systems as open source.

3. Creative Commons Licenses and CC TAIWAN

Part 3: Creative Commons and CC Taiwan
Next, let’s talk about Creative Commons (CC) and CC Taiwan in the context of open innovation.



Creative Commons was founded in 2001, and Taiwan was one of the earliest participating jurisdictions.



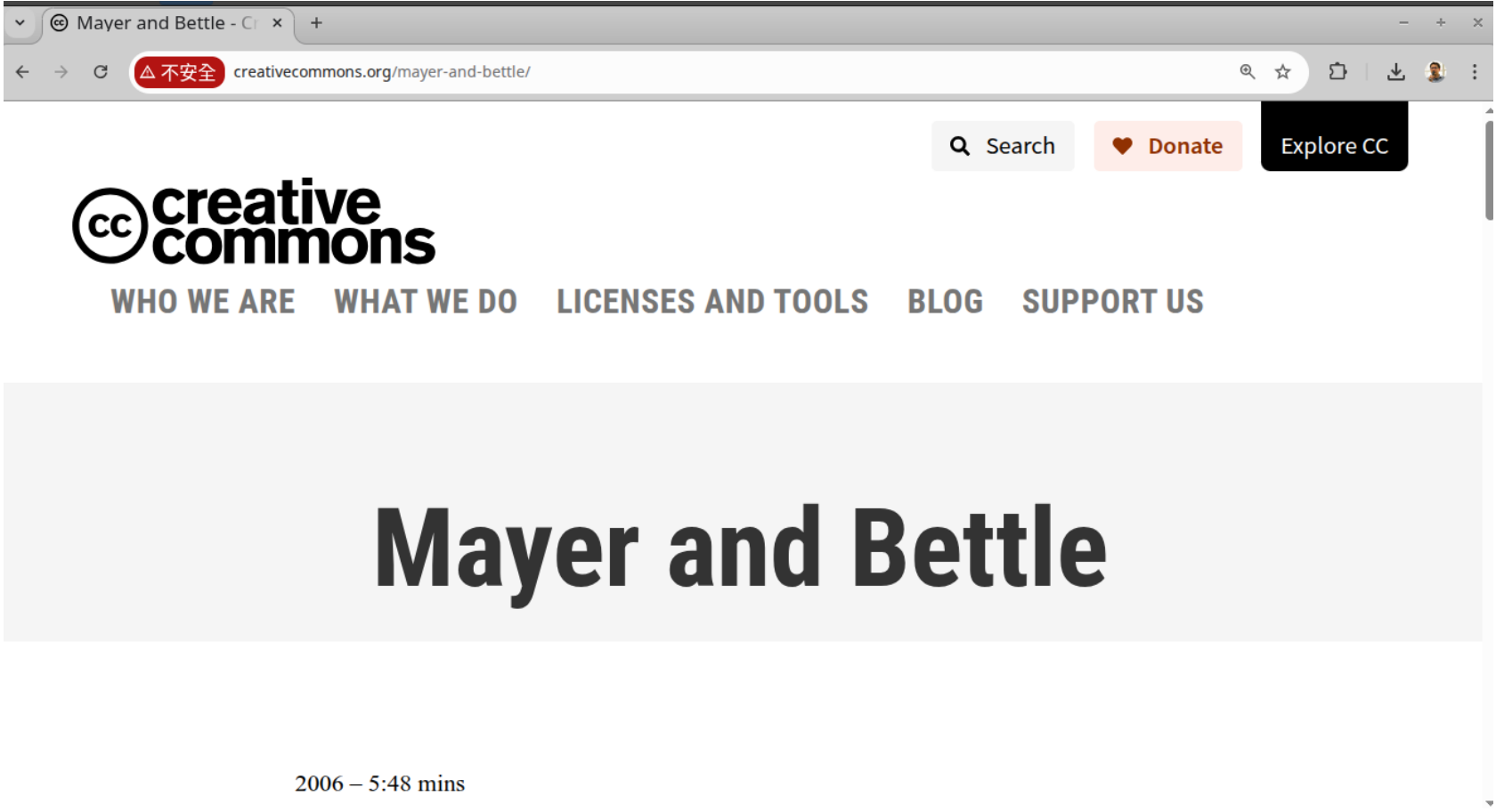
https://en.wikipedia.org/wiki/Lawrence_Lessig#/media/File:Lawrence_lessig,_joi_ito.jpg

On the slides, you see Lawrence Lessig and Joi Ito, both major contributors to CC.

Creative Commons License / pre-stated rules of use

"You may copy and use my work, but only if you follow the rules I've set in advance."

Open source licenses focus on software code, but copyright covers much more — literature, art, science, and data.
CC learned from open source and created a simple, pre-stated set of rules for creative works.
In short: "You may use my work, but please follow the rules I state in advance."



https://creativecommons.org/mayer-and-bettle/

Let’s watch a short animation from CC Australia, “Mayer and Bettle,” to introduce CC licenses.

CC BY

Attribution

Provide the required attribution as specified by the original author, including all **necessary credit and source information**.

Now, back to the slides, let me briefly explain CC’s four elements:

CC NC

Non-commercial

The material may not be used for **monetary compensation** or any other commercial advantage or gain.

CC ND

No derivatives

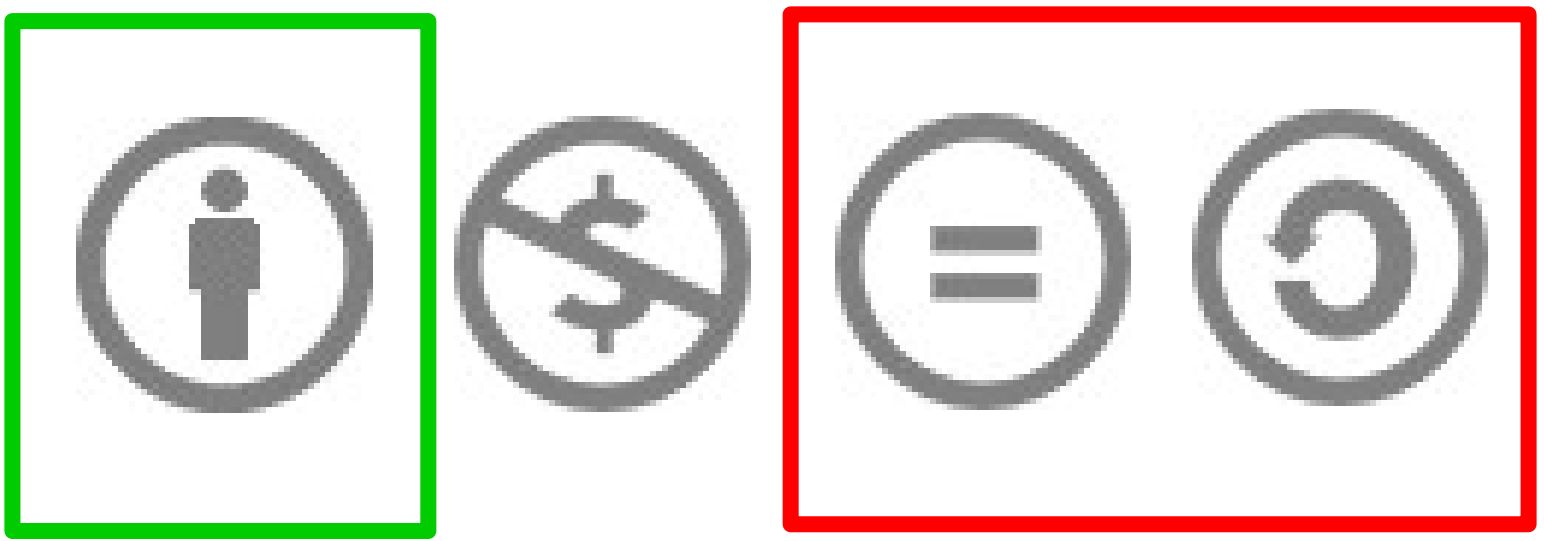
The work **may not be altered** in any way that changes its original content or meaning.

CC SA

Share alike

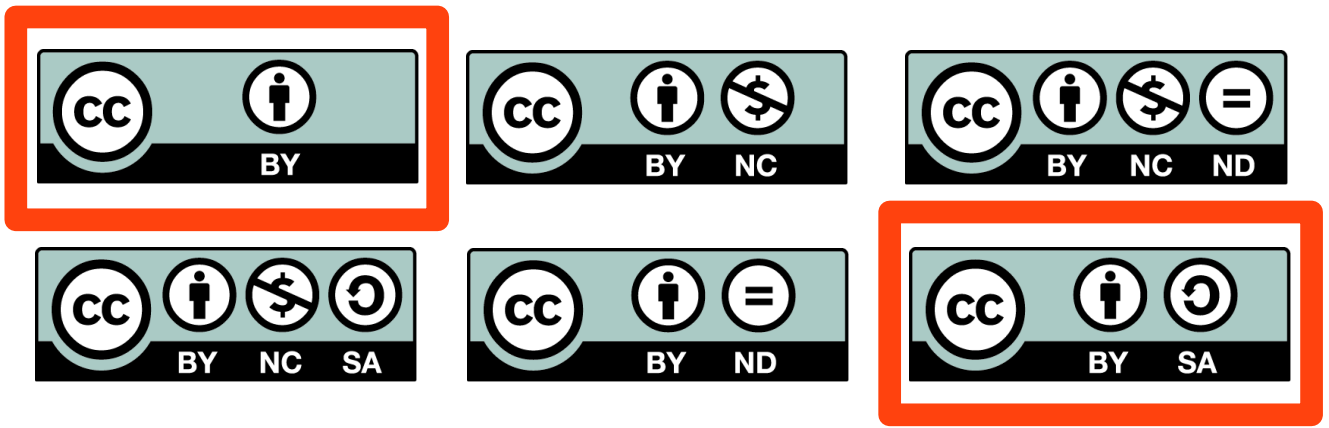
Whether or not the work is adapted, all derivative or subsequent works must **be shared under the same, identical license.**

The Four CC Elements



CC-BY appears in all combinations, so it is in green. ND and SA cannot appear together — they are logically incompatible, so we mark it in red.

CC license Suite



The four elements create six valid CC license combinations.

PDM ， Public Domain Mark

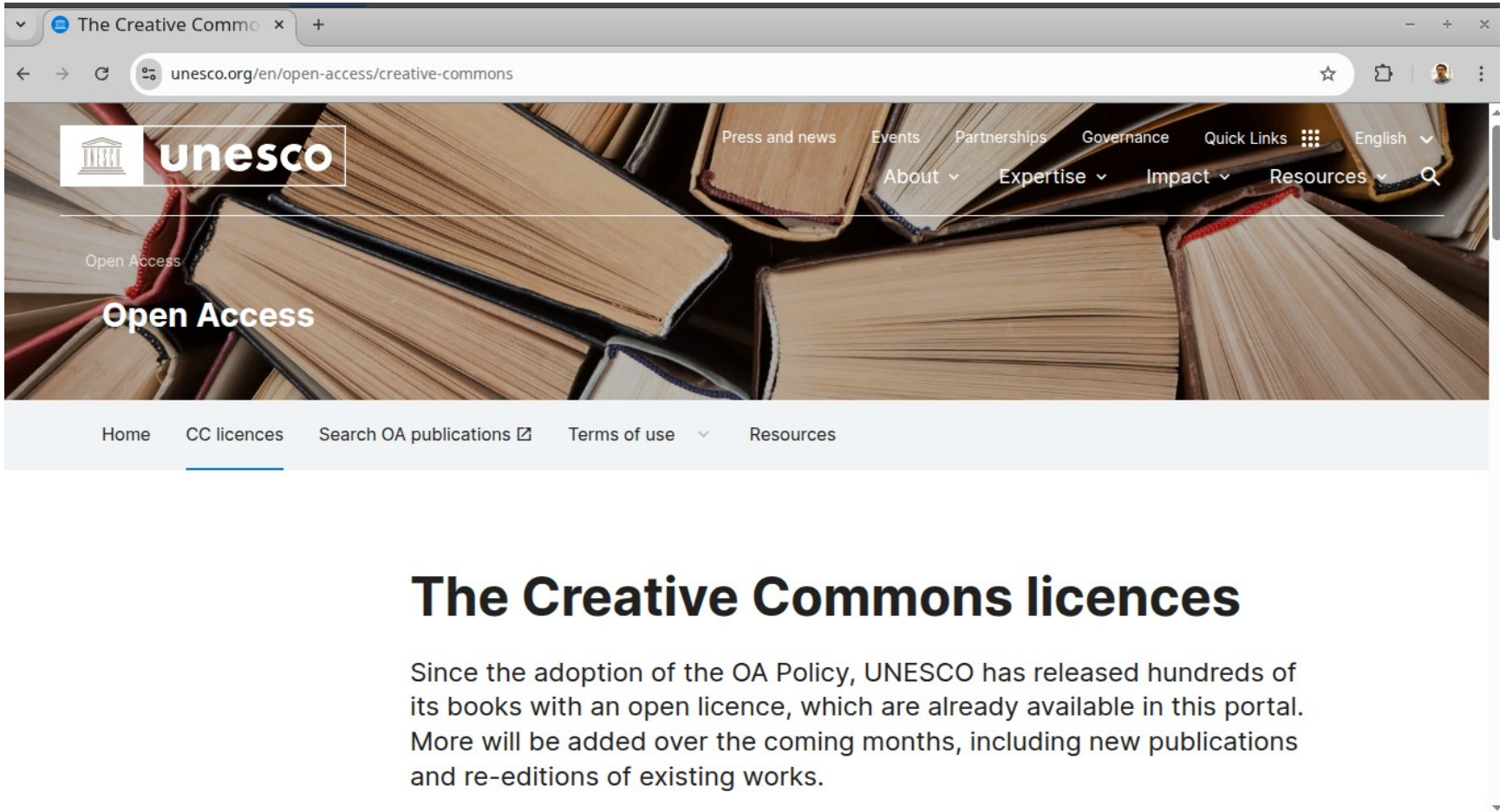
A simple, standardized label used to **mark works that are free from copyright restrictions**, making them easy to identify and available for reuse.

There are also two public-domain tools:
PDM — a label for works already in the public domain.

CC0 / CC Zero

The rights holder **waives all interests in the work** and **releases it into the public domain**, allowing others to use it freely for any purpose — including creation, enhancement, and reuse — without being restricted by copyright or database rights.

CC0 — the creator waives all rights and dedicates the work to the public domain.



https://www.unesco.org/en/open-access/creative-commons

Because CC materials spread easily across borders, UNESCO uses CC licenses for many of its publications and educational materials.

https://creativecommons.org/2025/08/21/creative-commons-becomes-an-official-unesco-ngo-partner/

Since 2025, Creative Commons is officially an NGO partner of UNESCO.

https://www.wikipedia.org/

Wikipedia also uses CC-BY-SA to support global collaboration.

OPEN INNOVATION

“Slow is Smooth.

Smooth is Fast.”

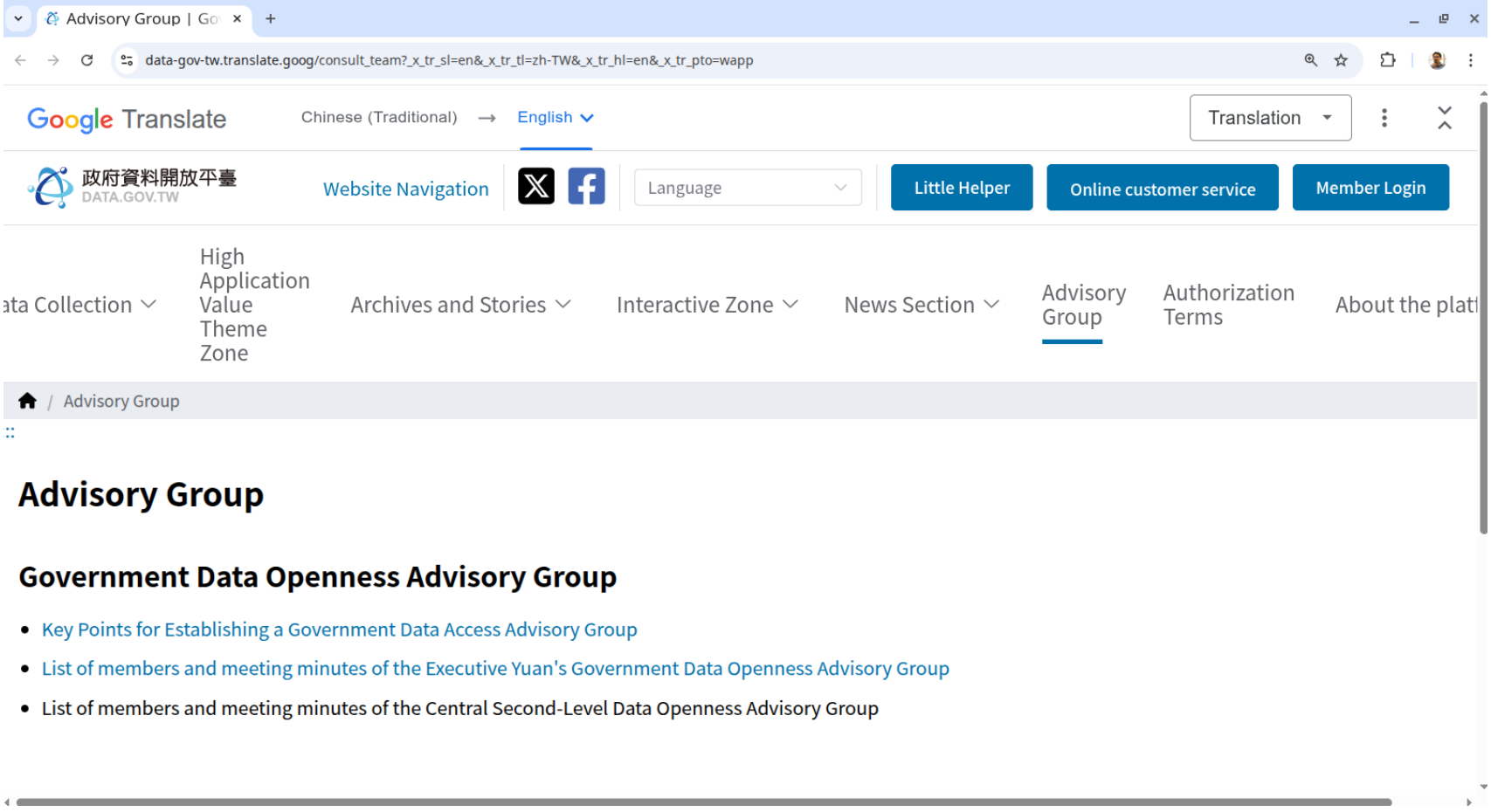
Open innovation, such as Open Source and CC, works like the saying:“Slow is smooth. Smooth is fast.” Early efforts take time, but once the system is ready, progress becomes stable and quick.

https://web-archive-2025.creativecommons.tw/index.html

Now let's talk about CC Taiwan. CC Taiwan began in 2002 at Academia Sinica under the support of Dr. Tyng-Ruey Chuang.

https://tw.creativecommons.net/

After 2016, CC Taiwan adopted a multi-partner model: different organizations contribute to the mission in their own way. For example, the Open Culture Foundation collaborates with musicians on open music; I continue to work on open data and open access through Gemly Int'l IPR Office.



https://data.gov.tw/consult_team

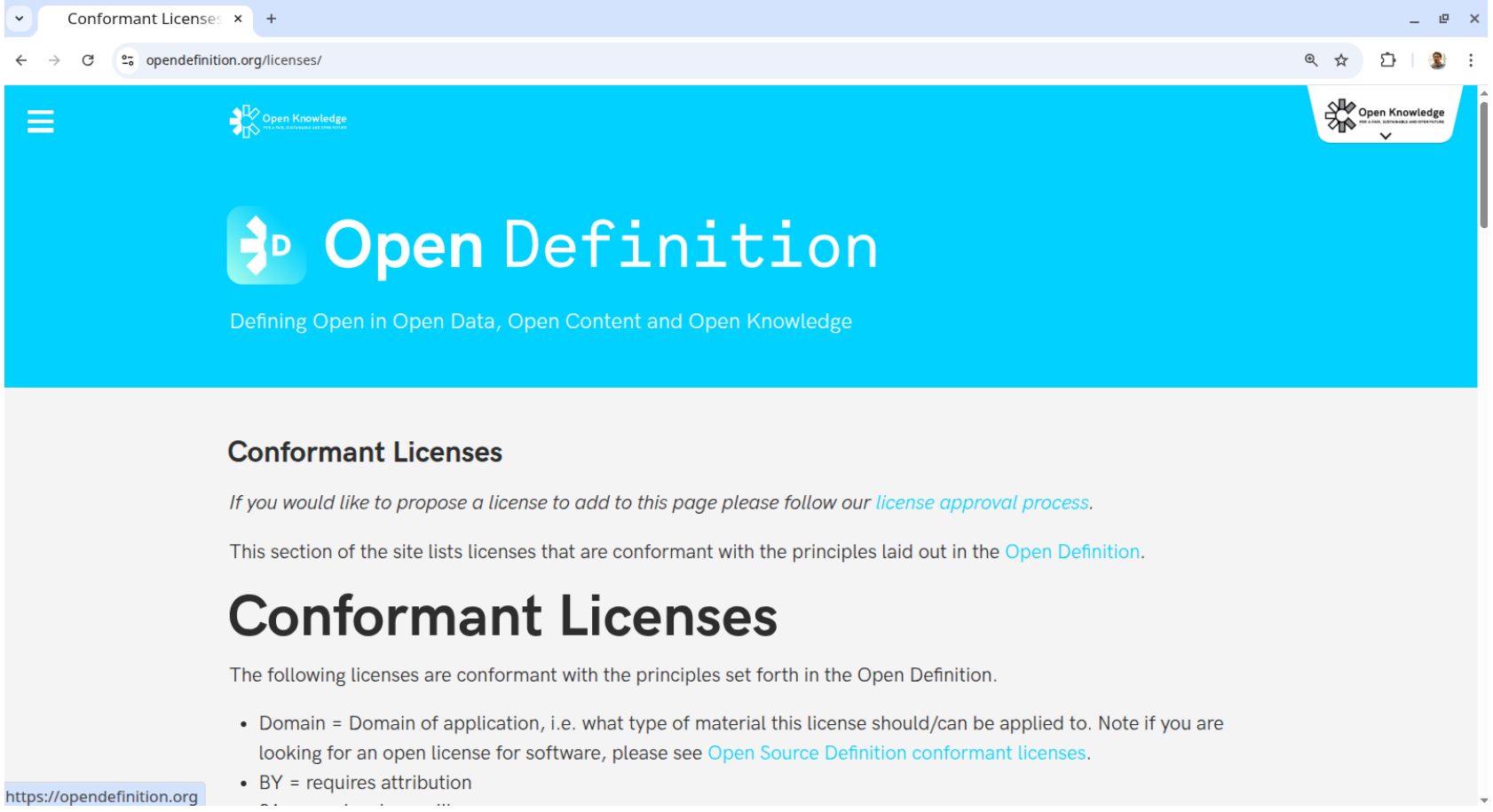
Because CC Taiwan started inside Academia Sinica, we are often invited to government expert meetings. I have served on many Open Government Data Advisory Committees.

https://data.gov.tw/license

Through this work, I helped draft the Taiwan Open Government Data License v1, now used by most government agencies. It also allows materials involving international matters to switch to CC-BY-4.0 International, ensuring cross-border usability.

https://discuss.okfn.org/t/license-approval-request-open-government-data-license-taiwan-1-0/4593

Later, Minister Audrey Tang submitted this license to the Open Definition Review Committee.



https://opendefinition.org/licenses/

And it was officially recognized as Open Definition-conformant.

https://freehkfonts.opensource.hk/download/

Why does “local + international” licensing matter? One example: Free Hong Kong Fonts.

https://freehkfonts.opensource.hk/download/

After 1997, Hong Kong cultural groups wanted to promote Hong Kong-style traditional characters, but they lacked a suitable base font. They eventually relied on Taiwan's legally open datasets — traditional Chinese fonts released under CC licenses.

Direct Taiwan–Hong Kong cooperation may be politically sensitive, but open innovation allows cultural exchange to continue in a sustainable way.

OPEN INNOVATION

"Open source and open innovation are built on international General Public Licensing rules, yet rely deeply on local communities — the more local they are, the more global they become."

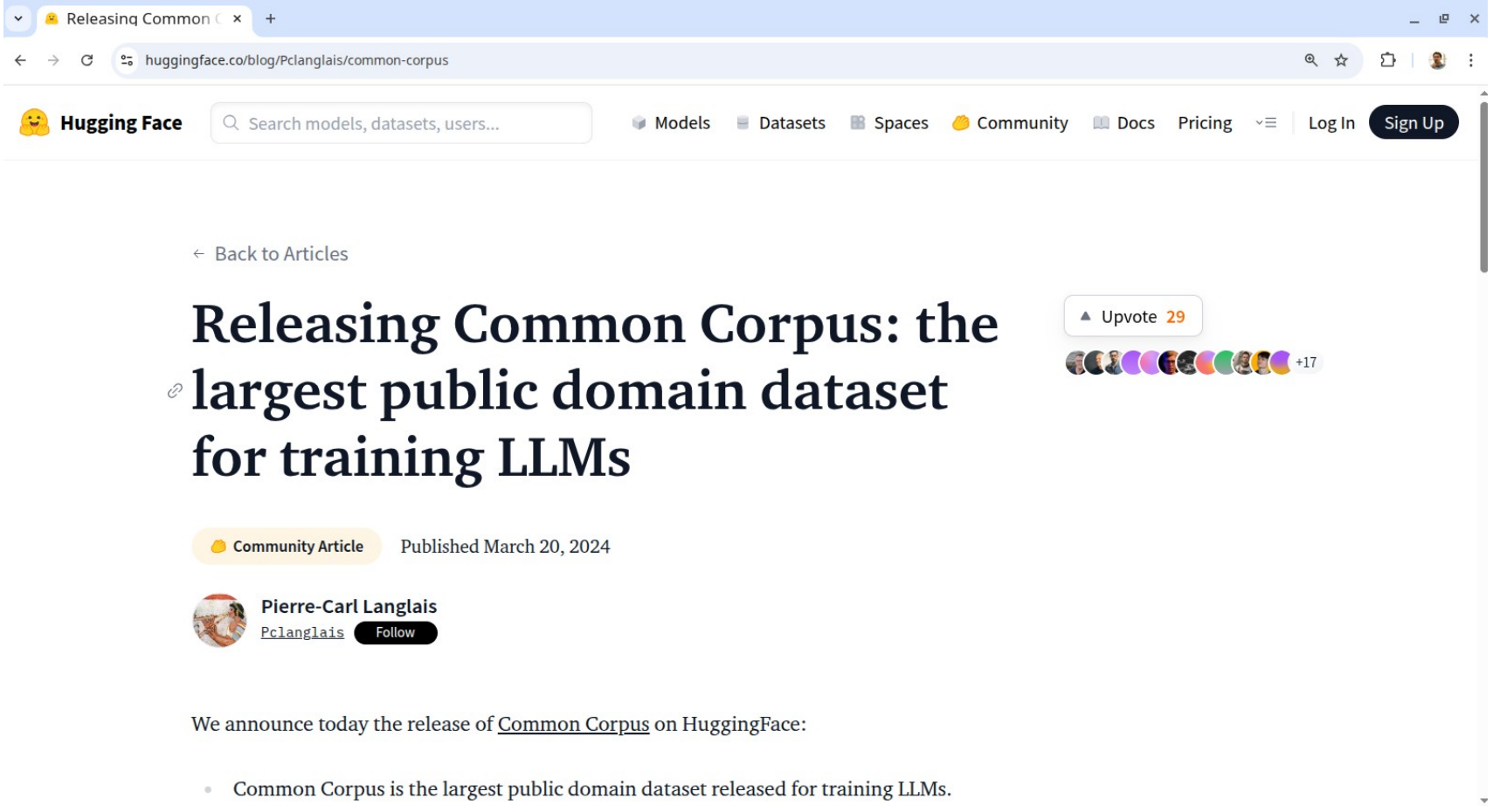
Source Code → Open Source AI

Preferred form to make modifications

- Data Information: OSI-approved terms
- Code: OSI-approved licenses
- Parameters: OSI-approved terms
- AI model & AI weights included

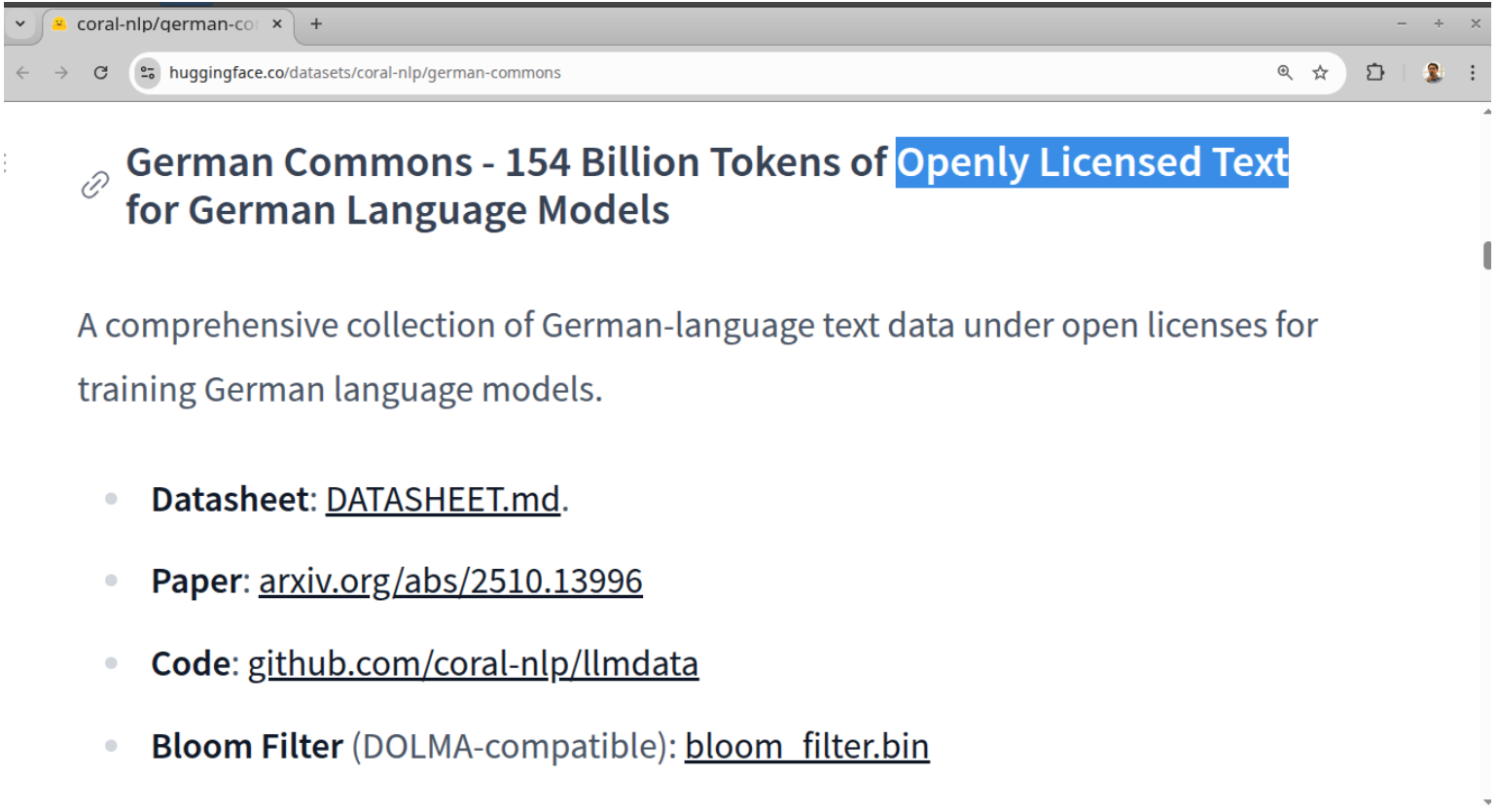
https://opensource.org/ai/open-source-ai-definition

Today, Open Innovation also enters the world of Generative AI.



https://huggingface.co/blog/Pclanglais/common-corpus

France’s Common Corpus uses a large amount of openly licensed materials.



https://huggingface.co/datasets/coral-nlp/german-commons

Germany’s German Commons takes a similar approach.

Taiwan Sovereign AI Training Corpus License - Version 1 (AIT-Lic-Taiwan-1.0)

Preamble:

To promote human-centric artificial intelligence (AI) research and applications, advance the public interest, elevate local cultural values, and support the sustainable development of natural language corpora, the Taiwan Sovereign AI Training Corpus License is designed to accelerate and promote the circulation of relevant data.

Taiwan is also moving in this direction. This year, I helped draft the Taiwan Sovereign AI Training Corpus License – Version 1 for our Ministry of Digital Affairs.

II. License Grants

1. The Corpus Data provided by the Licensor under this License grants the Licensee the rights to reproduce, adapt, compile, and exercise other necessary rights under copyright and related rights, enabling the lawful use of such data for AI training. This license is non-transferable and non-sublicensable, and its validity period may be specified by the Licensor or its representative as a specific number of years or in perpetuity.
2. The outcomes resulting from training as described above, including but not limited to models, weights, generated code, documentation, or other forms of output produced through learning or training, shall belong to the Licensee or the model operator if the results meet the eligibility criteria for copyright protection. The copyright holder of such outcomes shall have the right to make full and lawful use of these results. Even if the original Corpus Data is no longer available for use due to the limitation of validity periods, it will not affect the completed training results, including, but not limited to, the produced models, weights, generated code, documentation, and outputs in other forms.

It will soon be released, enabling the public to use government-released corpora for AI training under clear open-license rules.

THANK YOU

Lucien Cheng-Hsia Lin 林誠夏

E-mail: lucien.cc@gmail.com, contact@herdingfoss.com

LinkedIn: https://tw.linkedin.com/in/lucienchlin

Now we move into the Q&A session.

CC Taiwan Licensing Discussion Forum

https://groups.google.com/forum/#!forum/cctw-discussion

And if you have questions afterward, you are welcome to visit the CC Taiwan Licensing Discussion Forum. Thank you!