

Digital Commons & Public Policy

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SciencesPo

Session 2

Digital commons everywhere

What are digital commons ? And why are they (so) important ?



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Quizz about last session



1 Go to **wooclap.com**

2 Enter the event code in the top banner

Event code
NQKADZ




1 Send **@NQKADZ** to 06 44 60 96 62

2 You can participate

Find the unique characteristics of a common


1

Shared governance

0% 0 


2

Shared resources (tangible and intangible)

0% 0 

3

Public good (non rivalrous and non excludable)

0% 0 

Commons are special public goods

- **Multiple users can have access** with **no effect** on their quantity or quality (non rival)
- **No permission** is required to access the resource (non exclusive)
- **Governed** with rules that defines usage, management and organization rights



📌 Source : Coase, R. H. (1974) [The Lighthouse in Economics](#). The Journal of law & economics. [Online] 17 (2), 357–376.

Name all the digital commons you are using on a weekly basis



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Some digital commons you may encounter on a weekly basis

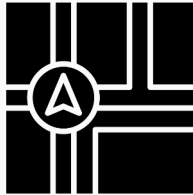
FLOSS

Wiki technologies enable to easily create and maintain open contents



Open data

Google maps, open street maps or City mapper rely on open databases

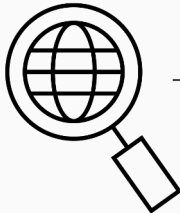


Created by kholifah from Noun Project

Open standards

Browsers use **HTTP** to interpret HTML instructions for page formatting.

Domain Name System translates web addresses into IP addresses.



Created by Srinivas Agra from Noun Project

Open licenses



Created by thirdesign from Noun Project

Open standards

EMail use protocols like **SMTP** (Simple Mail Transfer Protocol) to send and **IMAP** (Internet Message Access Protocol) to read email.

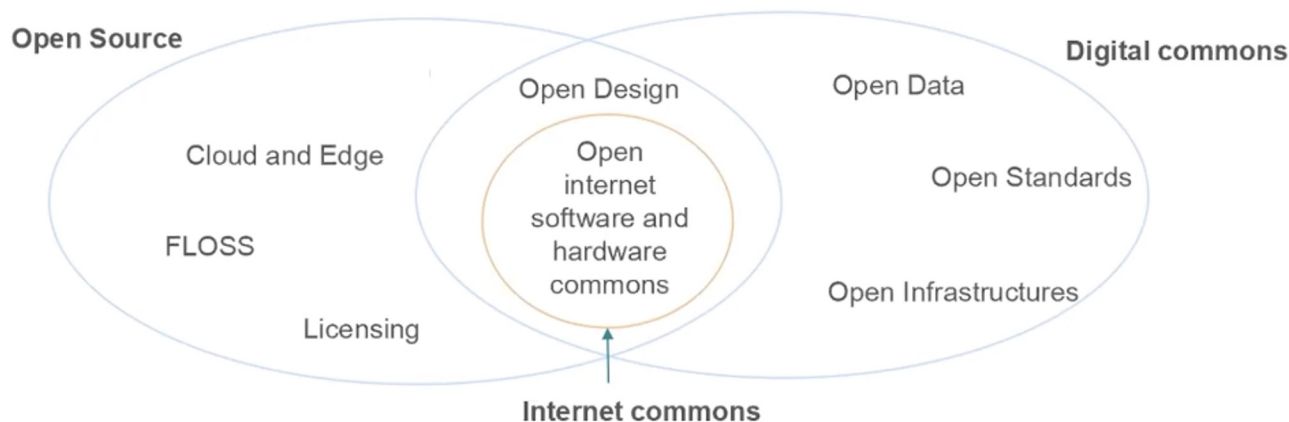


FLOSS

Smartphones with **Android OS** rely on a kernel that is based on **Linux Kernel**

Identifying different categories of commons

Internet commons vs digital commons vs open source



Understanding theoretical work behind the governance of (digital) commons



Hardin & the tragedy of the commons (1968)

- **The starting point** : profit-maximizing economic actors tend to maximize their use of unregulated commons
- **The argument** : commons property and sustainability of resources are incompatible
- **Solution** : To avoid the tragedy of commons, we should relinquish the freedom to breed. Natural resources should be under the regime of private property or of public property

📌 Source : Hardin, G. (1968) [The Tragedy of the Commons](#). Science (American Association for the Advancement of Science). [Online] 162 (3859), 1243–1248.

Understanding principles behind the governance of (digital) commons



Ostrom's Governing the commons (1990)

- **The starting point** : There is a “third way” between private and public property at local scale
- **The argument** : Commons are locally-born economic institutions. Governance enable commons to flourish as an alternative to state or market approaches to managing resources.
- **The solution** : Based on several local case studies, Ostrom identifies 8 governance design principles

The 8 design (governance) principles

1. Clearly defined boundaries
 2. Appropriate (fair) rules describe how resources can be used and under what conditions
 3. Inclusive rule-making process
 4. Collective monitoring of compliance with the rules
 5. Community based graduated sanctions
 6. Efficient and effective conflict resolution mechanisms
 7. Groups have the authority to conduct their own affairs.
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1. Local groups coordinate their rules with at different scales (local, regional ...)

Table 3.1. *Design principles illustrated by long-enduring CPR institutions*

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1. **Clearly defined boundaries**
Individuals or households who have rights to withdraw resource units from the CPR must be clearly defined, as must the boundaries of the CPR itself.
 2. **Congruence between appropriation and provision rules and local conditions**
Appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions and to provision rules requiring labor, material, and/or money.
 3. **Collective-choice arrangements**
Most individuals affected by the operational rules can participate in modifying the operational rules.
 4. **Monitoring**
Monitors, who actively audit CPR conditions and appropriator behavior, are accountable to the appropriators or are the appropriators.
 5. **Graduated sanctions**
Appropriators who violate operational rules are likely to be assessed graduated sanctions (depending on the seriousness and context of the offense) by other appropriators, by officials accountable to these appropriators, or by both.
 6. **Conflict-resolution mechanisms**
Appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials.
 7. **Minimal recognition of rights to organize**
The rights of appropriators to devise their own institutions are not challenged by external governmental authorities.
- For CPRs that are parts of larger systems:*
8. **Nested enterprises**
Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises.
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Applying the 8 principles to digital commons

- **Boundaries** = producers and users, sometimes with an encompassing legal entity (ex : Wikimedia foundation)
- **Rules** = Guidelines and procedures are collectively elaborated through participatory process
- **Monitoring** : the community proceeds to quality control, moderation or edition actions
- **Conflicts & sanctions** : based on the law (ex : [fake-news](#), licensing), shared values, and advocacy campaigns
- **Coordination** (nested enterprise): digital commons projects work as ecosystems

Presentation

What are copyleft and open licences?

Exercise : evaluating a Wikipedia article

Steps

1. (Optional) Create an account on Wikipedia (you may use a pseudonym)
1. Open the exercise : “Wikipedia policies”
<https://dashboard.wikiedu.org/training/students/wikipedia-essentials>
1. Open the exercise “Evaluate wikipedia”
<https://dashboard.wikiedu.org/training/students/evaluate-wikipedia-exercise>
1. Evaluate the article “Digital commons (economics)”
https://en.wikipedia.org/wiki/Digital_commons_%28economics%29