AND THEN THERE WERE USERS

Designing and implementing governance for open research software projects

netherlands
eScience center

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DLR
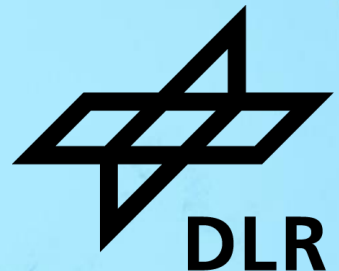
# Governance for open research software projects

- What is governance?

- When and why may RSEs need governance?

- Ingredients for designing and implementing governance

- Governance implementation (example)

- Lessons learned

Example project:
The Citation File Format

- Format for `CITATION.cff` files that contain citation metadata for software

- **Subprojects** for developing the schema, documentation and tooling

- From community-based solo project

  to being supported by *GitHub* (15,000+ files), *Zenodo*, *Zotero* and others

- "Co-led" by me
  and Jurriaan H. Spaaks

- **citation-file-format.github.io**

DLR
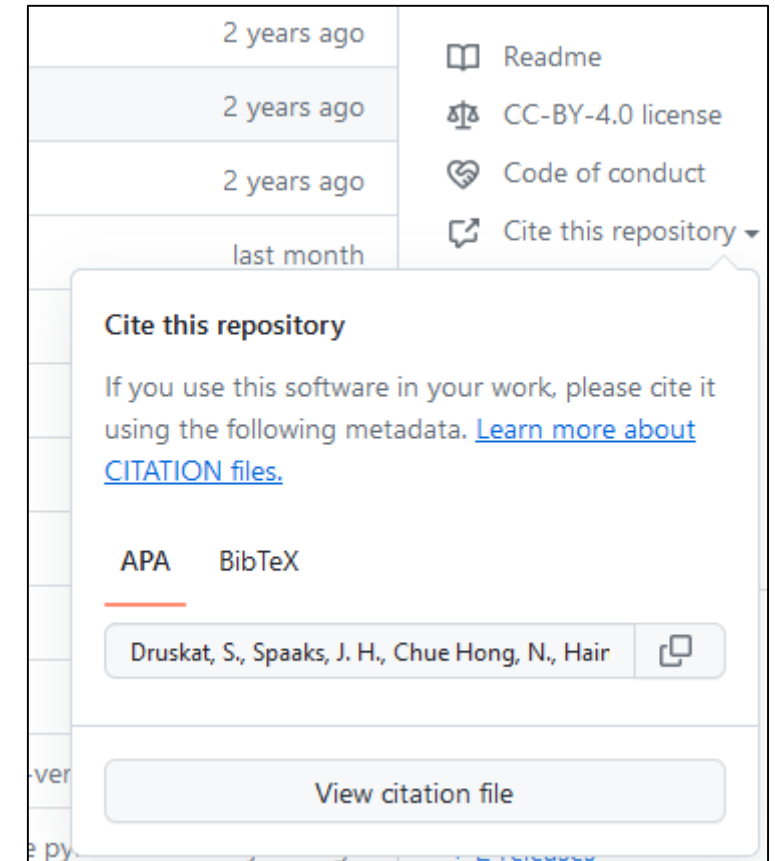
"**Governance** is the <u>process</u> of making and enforcing <u>decisions</u> within an organization or society."

Source: Wikipedia contributors, "Governance — Wikipedia, the free encyclopedia." 2023.
<u>https://en.wikipedia.org/w/index.php?title=Governance&oldid=1164294730</u>

👉 *Rules, norms, power, communication* 👈

Rules, norms, power, communication: When and why do RSE projects need governance?

- **When:**

  - >1 individuals interact with the project

- **Why:**

  - Transparency and openness, managing expectations

  - Accessibility, community building, sustainability

  - Control over the mission, aims and scope

  - Clear responsibilities

  - …

GOVERNANCE DESIGN

How to design and implement governance?

1. Project **aims**

2. Project **scope**

3. Project **vision** / **mission**

4. Project **principles** and requirements

Code for Science & Society

Digital Infrastructure Incubator

www.codeforsociety.org/incubator/resources

How to design and implement governance?
Aims and scope as the baseline

What are the **aims** of the project?

The Citation File Format makes it easier for research software engineers and researchers to make their software citable, and for their users to cite it.

What is the **scope** of the project?

*The Citation File Format specifically focuses on **citation** metadata for **software**. It will adapt to a better understanding of relevant metadata for software citation, but does not aim to expand this scope.*

How to design and implement governance?
The mission or vision

Who are you working **with**, or hope to work with?

What are you doing?

Who are you doing it **for**?

Why are you doing it, what is the impact or change that you hope to make?

I'm working with [community, contributors] to [build something] so that [users, community members] can [do something different, achieve a goal].

How to design and implement governance?
The mission or vision: Example

We're working with software citation enthusiasts, research software engineers and researchers to create a software citation metadata format and respective tooling, so that researchers and research software engineers can make software citable and cite it more easily.

How to design and implement governance?
The mission or vision: Governance roles

We're working with software citation enthusiasts, research software engineers and researchers to create a software citation metadata format and respective tooling, so that researchers and research software engineers can make software citable and cite it more easily.

How to design and implement governance?
Underlying principles and requirements

- Legal requirements (additional roles, decision processes)

- Political, social, ethical principles

- Political, social, ethical issues or problems

Citation File Format

- *Project of projects*

- *Control vs. autonomy and inclusivity*

- *Responsibility*

Breakpoint:
Ingredients for designing governance

We now have

1. A **baseline**

   - Project aims

   - Project scope

2. Governance **roles**

   - via mission statement

3. Governance **requirements**

   - based on principles and upstream requirements

We want

- A recipe or templates to get started

Photo: Dose Juice on Unsplash

GOVERNANCE IMPLEMENTATION

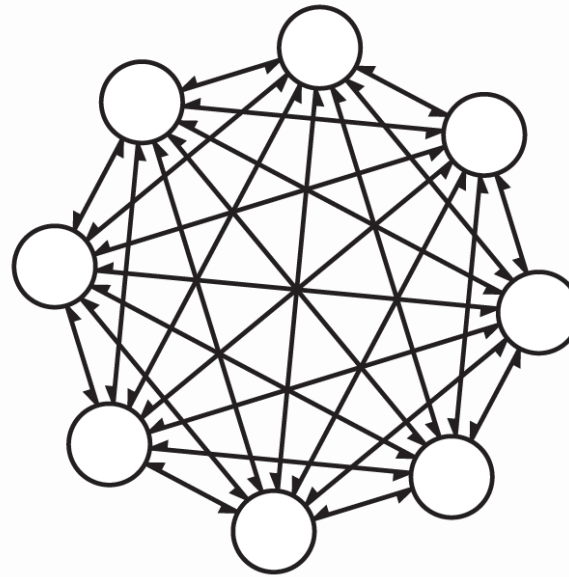# How to design and implement governance? Governance models

- communityrule.info
- Code for Science & Society Digital Infrastructure Incubator Governance Bibliography
- Talk to other projects

- Adopt & adapt, mix & match

CommunityRule is a governance toolkit for great communities.

How does your community work?
Are you ready to make hard decisions?

From: Cassandra Dana, Drew Hornbein, Vincent Russell, Nathan Schneider: "Community Rules". 2021. https://communityrule.info. CC BY-SA Intl. 4.0

Benevolent Dictator
The Benevolent Dictator holds ultimate decision-making power, until the group is ready for a more inclusive structure.
Values | Membership | Autocracy | Delegation | Expiration | Executive | Lobbying

Circles
Units called Circles have the ability to decide and act on matters in their domains, which their members agree on through a Council.
Values | Membership | Council | Delegation | Lazy consensus

Consensus
Decisions that affect the group collectively should involve participation of all participants.
Values | Membership | Exclusion | Consensus | Deliberation | Do-Ocracy

Do-ocracy
Those who take initiative to do something in the group can decide how they do it.
Values | Membership | Autonomy | Do-ocracy | Lobbying

Elected Board
An elected board determines policies and organizes their implementation.
Values | Membership | Board | Representation | Majority Voting

Jury
Proposals are shaped and decided on by randomly selected juries.
Values | Membership | Legislature | Sortition | Petition | Policy Register

Petition
All participants can propose and vote on proposals for the group.
Values | Membership | Petition

Self-Appointed Board
A board that selects its own members determines policies and organizes their implementation.
Values | Membership | Board | Majority Voting

Governance implementation: Citation File Format

- **Roles**
  - Steering committee, subproject maintainers, contributors, users

- **Mixed model**
  - Steering committee for the project as a whole
  - Maximum autonomy for the maintainers of the subprojects

- **Steering committee**
  - Software citation experts + elected community representative(s)
    - Supportive of CFF, strategic development, outreach, consultancy, governance development, community building, Code of Conduct committee, final decider
    - Decides on adding and removing subprojects
    - Maintains the schema and website subprojects

- **Decision-making process**
  - To be decided: no simple formalization of lazy consensus, but lightweight

Governance implementation: Documentation

- **Process:**
  - [Template](#)-based draft with extensive adaptions, continuous risk assessment
  - Preliminary adoption of existing Code of Conduct
  - Candidates for Steering Committee (SC) invited
  - Communication with subprojects
  - Inaugural SC to make decisions on details & decision processes, organize election

- **Planned outcomes:**
  - Refactoring of website to include governance documentation
    - Aims, scope, mission
    - Governance document
    - Code of Conduct
    - Contacts
  - New blog for outreach and better transparency
  - SC meetings, community meetings
  - Potentially new infrastructures for internal and external communication

Lessons learned & conclusion

- Formalizing governance is useful for projects of different sizes to
  - Increase transparency and openness
  - Manage expectations and responsibilities
  - Assert control over the project
  - Get to know the project better
  - React to changes & adapt

- No one-size-fits-all
  - Adaption can be hard work
  - Danger of developing against a worst case scenario

- Ask a friend
  - More experience in other spheres (e.g., open source)
  - Work with those who support the project

Thanks!

Citation File Format:

- citation-file-format.github.io

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Thanks:

- Rayya El Zein ([CS & S](CS & S)) & [DII](DII) cohort, Axel Loewe (OpenCARP), Daniel S. Katz, Neil Chue Hong, Rob Haines, Tom Honeyman

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