From disconnected elements to a harmonious ecosystem

The Epiverse-TRACE project

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github.com/epiverse-trace
Scientific research relies more and more on data science
Modern data science pipelines are not made of fully interoperable pieces.
We cannot afford to fix and update pipelines in the middle of a crisis
We don’t just need good isolated pieces of software, we need a robust ecosystem as a whole.
An international multi-stakeholder project to harmonise the ecosystem of epidemiology tools in R

- Make existing pieces interoperable
- Support existing tools to adopt global standards
- Develop a sustainable community
What we don’t want

**How Standards Proliferate:**
(See: A/C chargers, character encodings, instant messaging, etc.)

- **Situation:**
  - There are 14 competing standards.

- **Soon:**
  - 14?! Ridiculous! We need to develop one universal standard that covers everyone's use cases. Yeah!
  - Situation:
    - There are 15 competing standards.
Our approach

• Involve the community
• Build upon existing infrastructure
• Co-creation with users & with other developers

Epiverse summit in Bogotá, Colombia, in June 2023
Successes

- Over 14k downloads
- 2 registered DPGs; 1 nominated
Challenges

• Research and academia are hyper-competitive spaces
• Communication is difficult in a network with many nodes
• How to build something sustainable even if funding isn't?
Conclusion

- Responding to the next crisis will require interoperable tools
- This can only be done through collaboration and multi-stakeholders projects
- Complex communities bring extra challenges
- What may appear as a technical challenge is even more of a communication and social challenge
Come talk to me about building bridges in the open-source ecosystem!