From disconnected elements to a harmonious ecosystem

The Epiverse-TRACE project

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@bisaloo
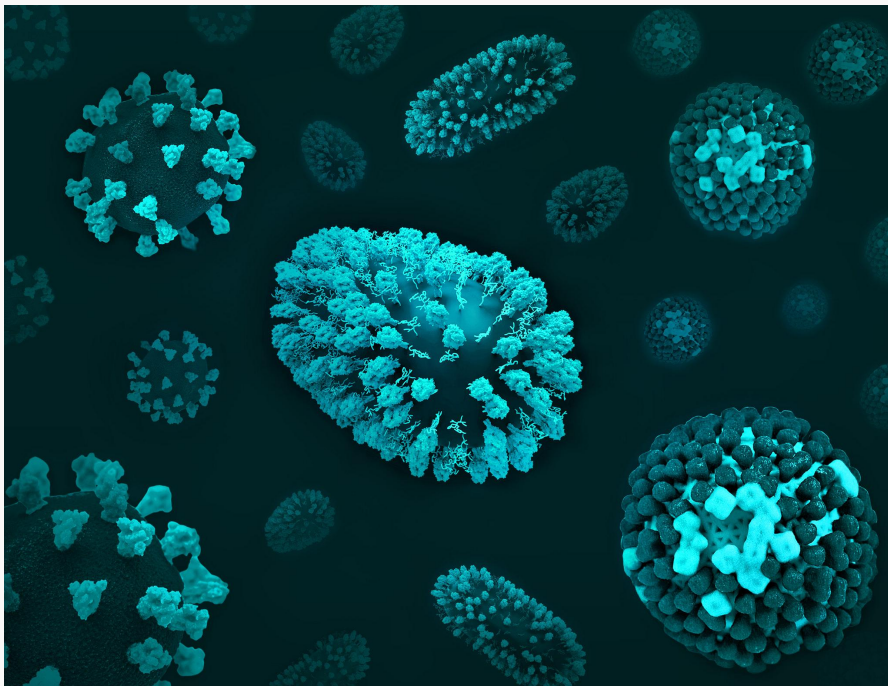
Scientific research relies more and more on data science

Modern data science pipelines are not made of fully interoperable pieces.

Piping system on a chemical tanker, by Hervé Cozanet, CC BY-SA

github.com/epiverse-trace

We cannot afford to fix and update pipelines in the middle of a crisis


COVID-19, RSV, and Flu, by the NIAID, CC BY

Sailors practice fixing a broken pipe during a damage control training environment, by the US Navy, CC BY

github.com/epiverse-trace

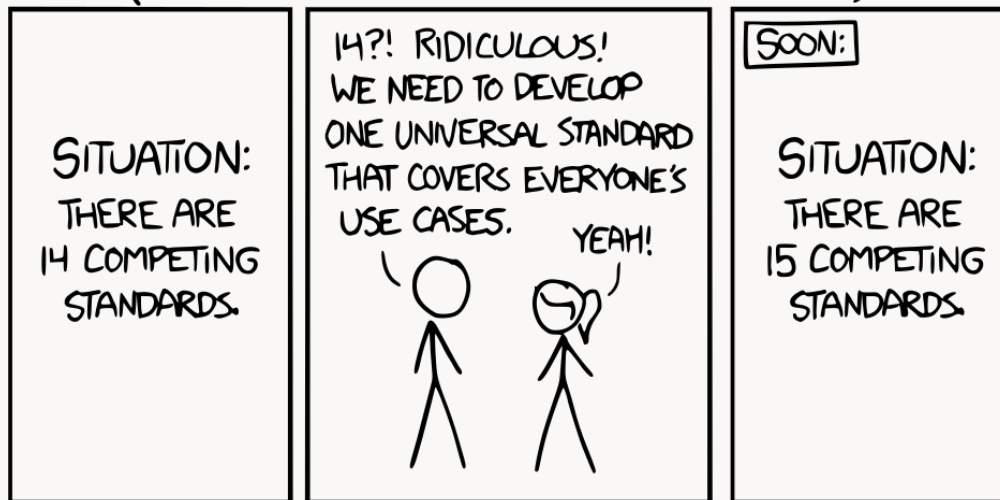We don't just need good isolated pieces of software, we need a robust ecosystem as a whole.

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
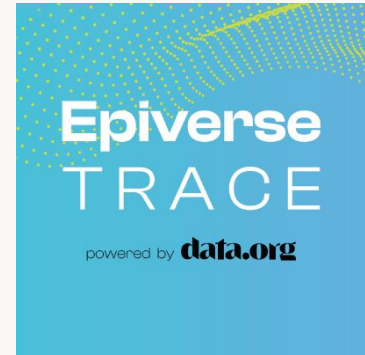
What we don't want

Our approach

- Involve the community

- Build upon existing infrastructure

- Co-creation with users & with other

  developers

Epiverse summit in Bogotá, Colombia, in June 2023

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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?

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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

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Come talk to me about building bridges in the open-source ecosystem!