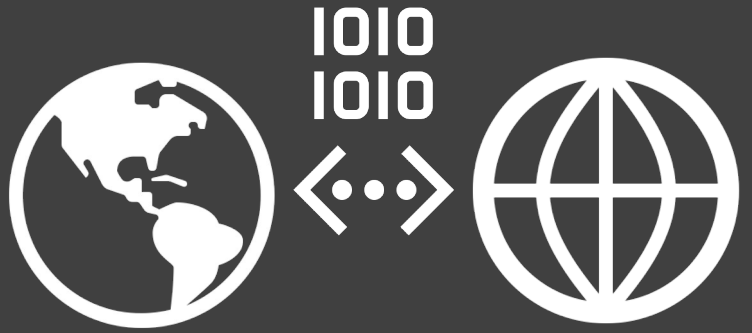
Sharing is encouraged

The Alan Turing Institute

The Environmental DS Book: Showcasing Reproducible Environmental Data Science



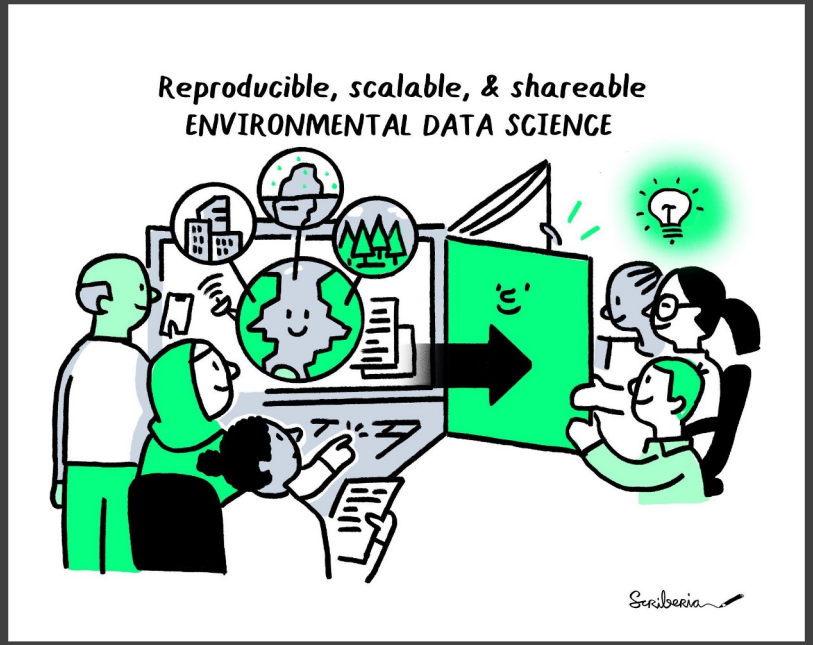
Alejandro Coca-Castro[1], Scott Hosking[1,2] & The Environmental DS community[3]

They/Their

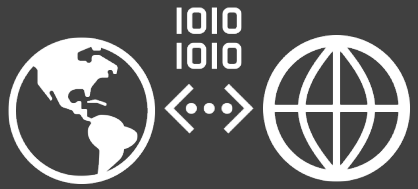
[1]The Alan Turing Institute, [2]British Antarctic Survey, [3]Multiple institutions

The Environmental DS Book

A **living**, **free** and **open** online resource to **showcase** and **support** the **publication** of data, research and open-source tools for **collaborative**, **reproducible** and **transparent** **Environmental Data Science**



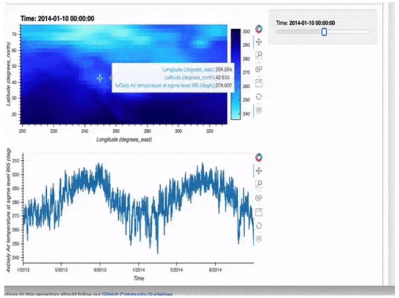
High-level ideas



hvPlot

Panel

PANGEO

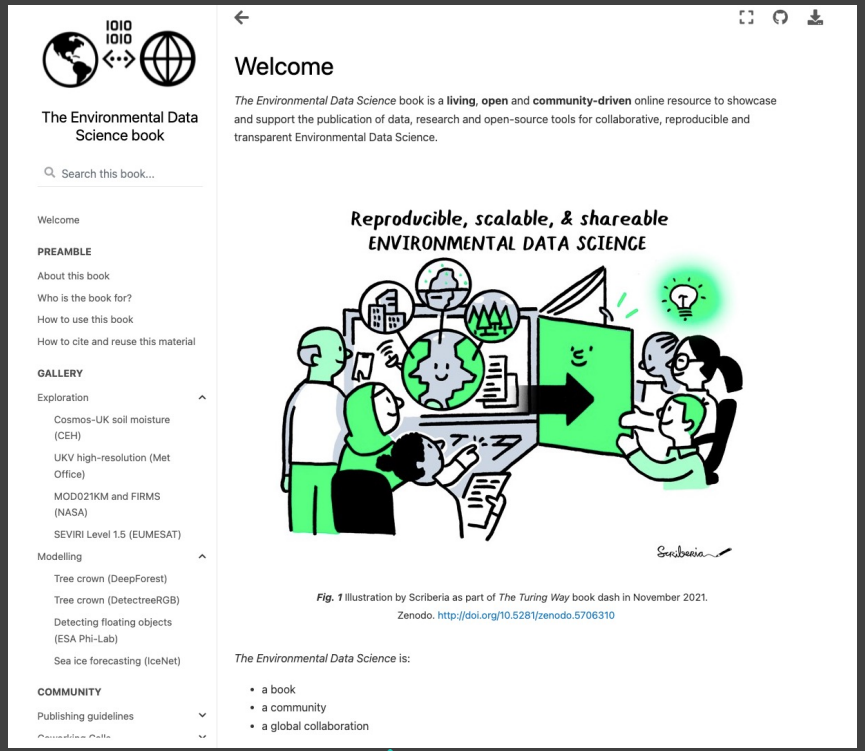


jupyter {book}

binder + jupyterhub

Open-source Interactable Shareable Reproducible

Gallery with FAIR notebooks



netlify

Title

Tags (Environment, Theme)

RoHub | FAIR Executable Research Object

launch binder

Context
purpose, highlight, contributions

Data

Analysis

Citation

jupyter

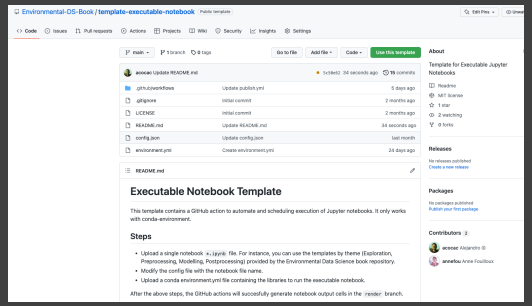
Sharing is encouraged

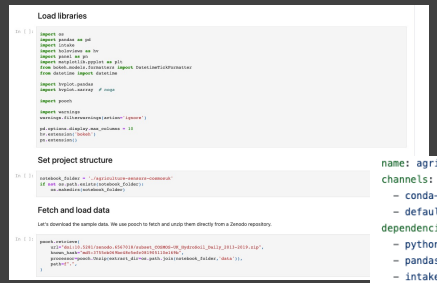
Automated executable notebooks

Template (basic)

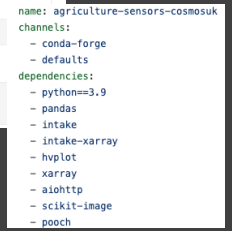
Upload notebook + extra setting files

GitHub Actions

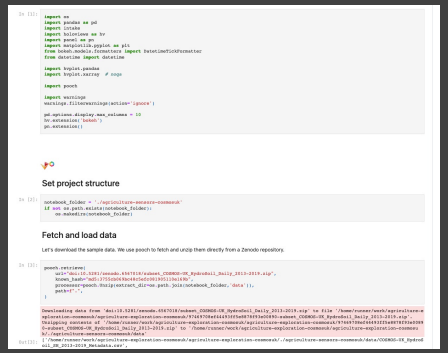




Notebook
(without cell outputs)



conda environment

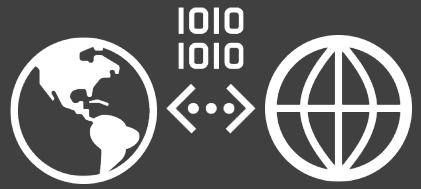


Executed Notebook
(with cell outputs)

Publication process

A community-driven platform for publishing and improving scientific software practises in the environmental science community

Remarkable progress



guidelines
templates

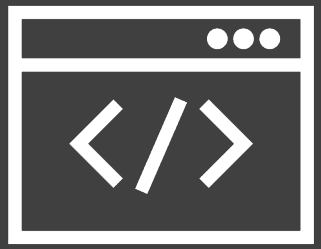
published
notebooks

persistent DOIs
(RoHub)

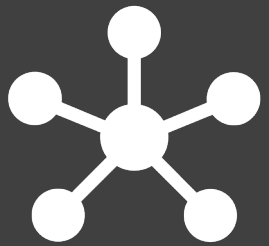
co-working
meetings

Future work

Dashboards to inform use/dev open-source
(awesome-like repositories)



More programming languages & open-source communities
(Julia, R, JavaScript)



New community co-working & share-out activities
(e.g. Show and Tell)

Big thanks!

The Open Science Community

PANGEO

jupyter

The Turing Way

Open Life Science

The Environmental DS community

6 Authors

6 Reviewers

+Advisors/Contributors

10+ participants in co-working sessions

UNIVERSITY OF CAMBRIDGE

British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Met Office

UK Centre for Ecology & Hydrology

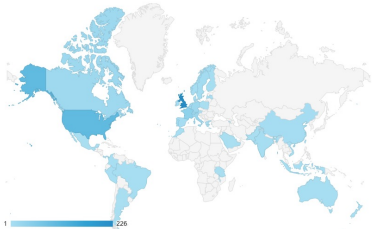
The Alan Turing Institute

Reliance

esa

THE UNIVERSITY of EDINBURGH

526+ users?
(visits since Dec'21)



Contribution and suggestions are welcome!

@EnvDSBook

https://the-environmental-ds-book.netlify.app

alan-turing-institute/environmental-ds-book

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