The Alan Turing Institute

Hidden roles: *perspectives, paths and lived experiences*

Festival of Hidden REF: 21 September 2023

Emma Karoune, Cassandra Gould Van Praag,
Malvika Sharan

Icebreaker

What research roles exist that are overlooked and/or Hidden?

Grab a sticky note and stick on the board/wall.

The Alan Turing Institute

Hidden roles: *perspectives, paths and lived experiences*

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Emma Karoune, Cassandra Gould Van Praag,
Malvika Sharan

Introductions

Emma Karoune
Senior Research Community
Manager, Turing Health

Cassandra Gould Van Praag
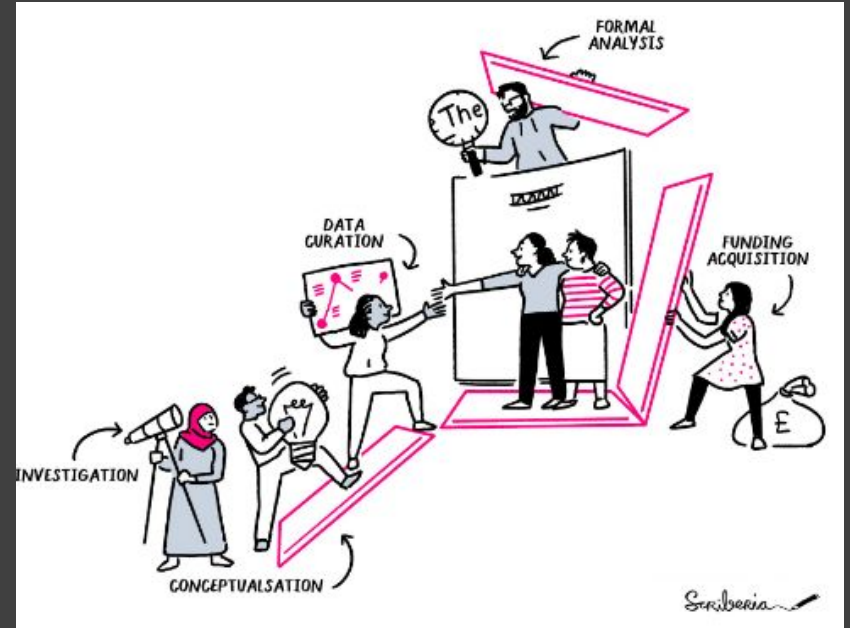Senior Research Community
Manager, TRIC:DT

Malvika Sharan
Senior Researcher,
Tools, Practices and Systems
Programme

Activity 1

What are some tasks required to carry out a research project?

Use slido to enter your answers

Attend / chair meetings

Manage (cloud) compute resources

Commercialise a product

Peer review

Promote EDI and work-life balance

Read literature

Deliver trainings

Archive data & code

Write papers

Bring in funding

Design experiments

Share work with the public

Give talks

Collect / access data

What does a quantitative researcher do?

Set strategy

Maintain ethical & legal principles

Testing & quality control

Mentor colleagues

Track impact

Manage budgets

Run statistical analyses

Promote work to decision makers

Host events

Scope user requirements

Generalise code to software

Visualisation

Report on progress

Manage a team

Interpret results

@TuringWay @kirstie_j

https://doi.org/10.5281/zenodo.7749650

Evolving research and data landscape

- Interdisciplinarity
- Movement to Open research
- Commitment to EDIA
- Inclusive research culture
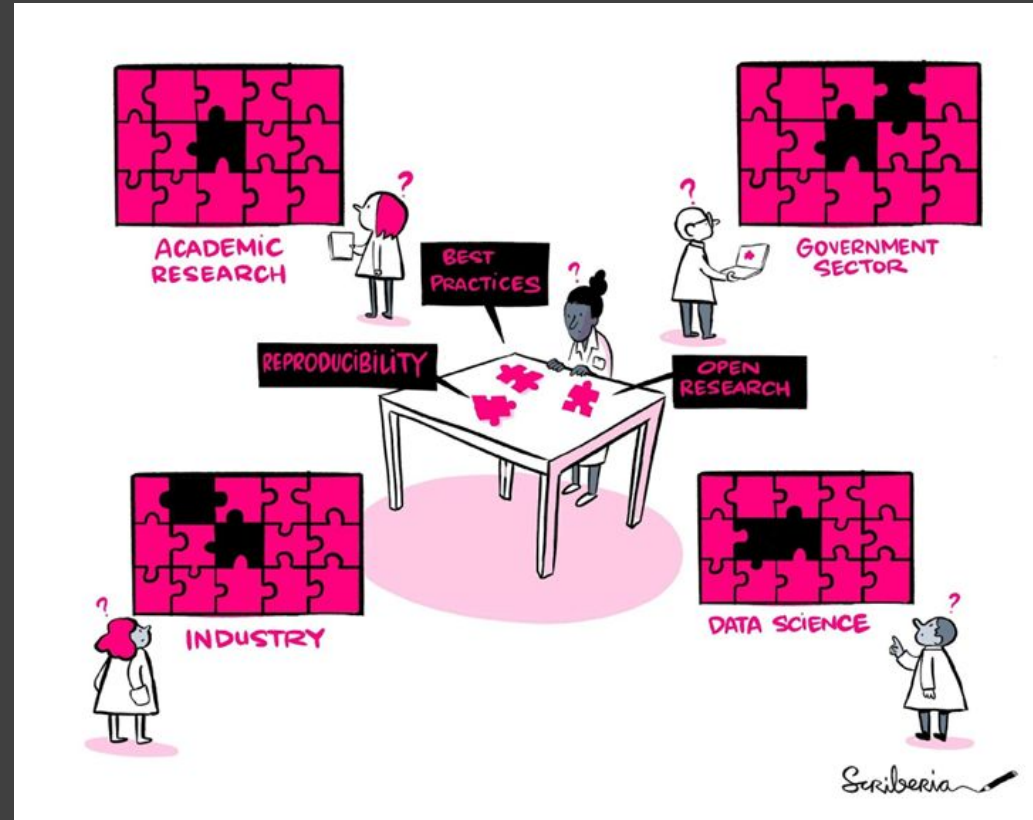
Research Infrastructure

Physical or digital facilities, resources, **expert workforces and specialised services** available for research and for the use of research communities.
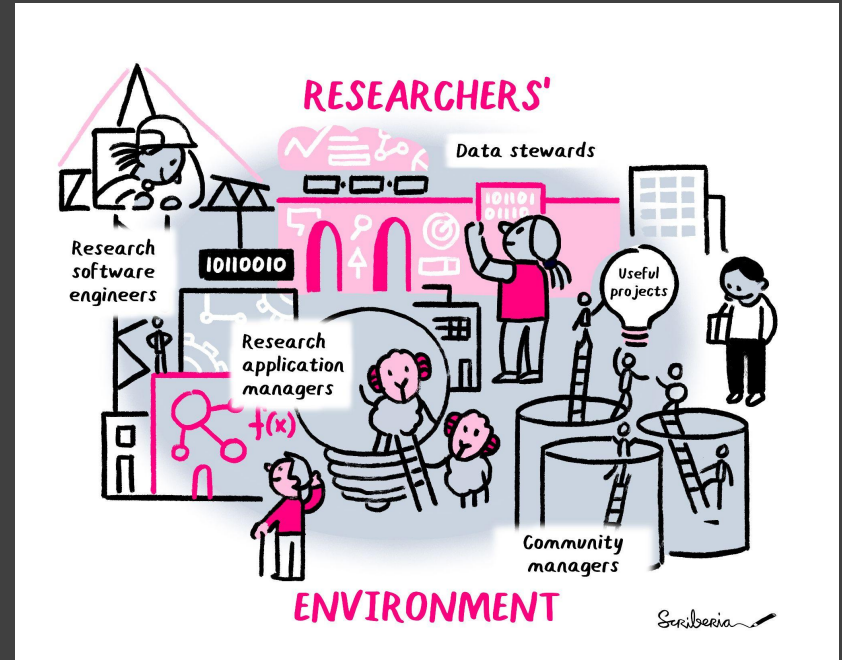
Reference Presentation on 'Investing in Research Infrastructure Roles for culture change' https://zenodo.org/record/7620215
References: Science Europe and National Institute of Health and Care Research

Research Software Engineering
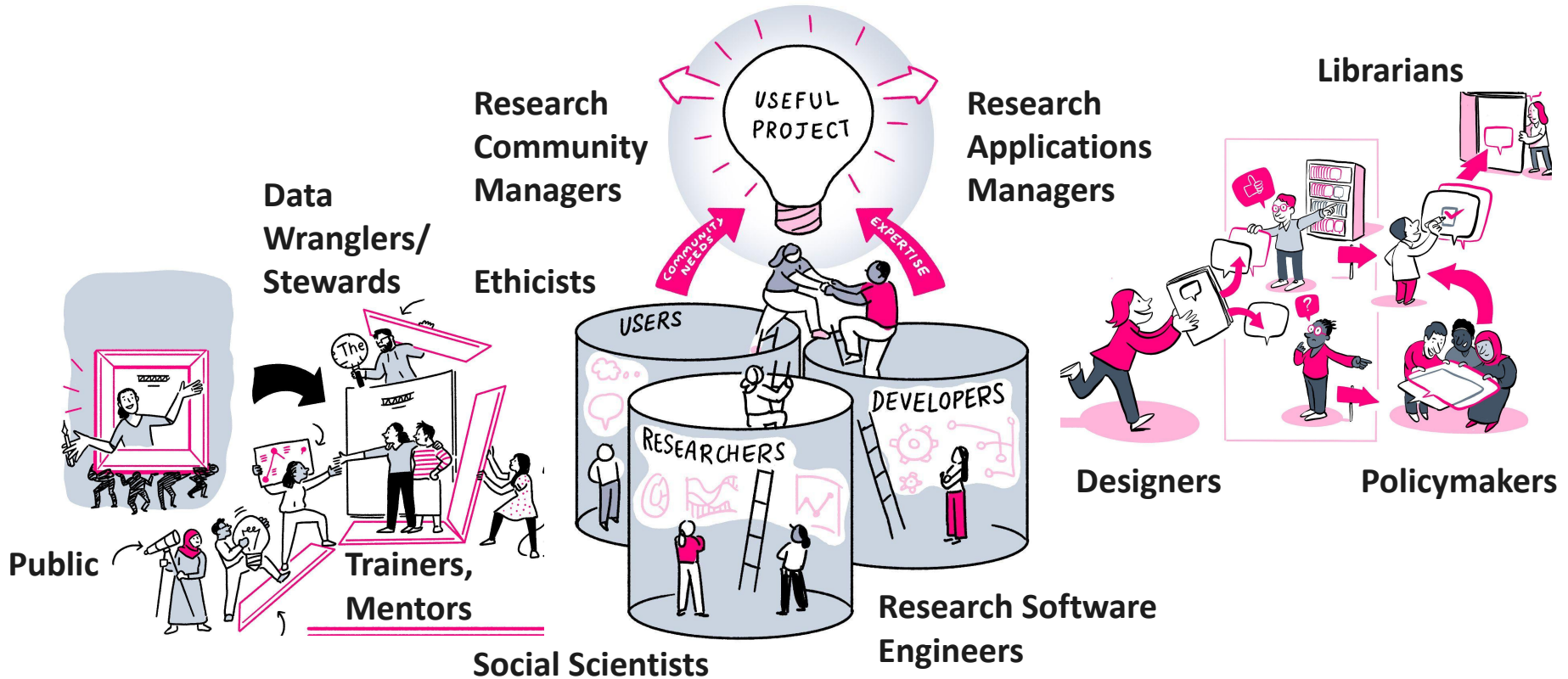

Learning from 10 Years of the RSE movement
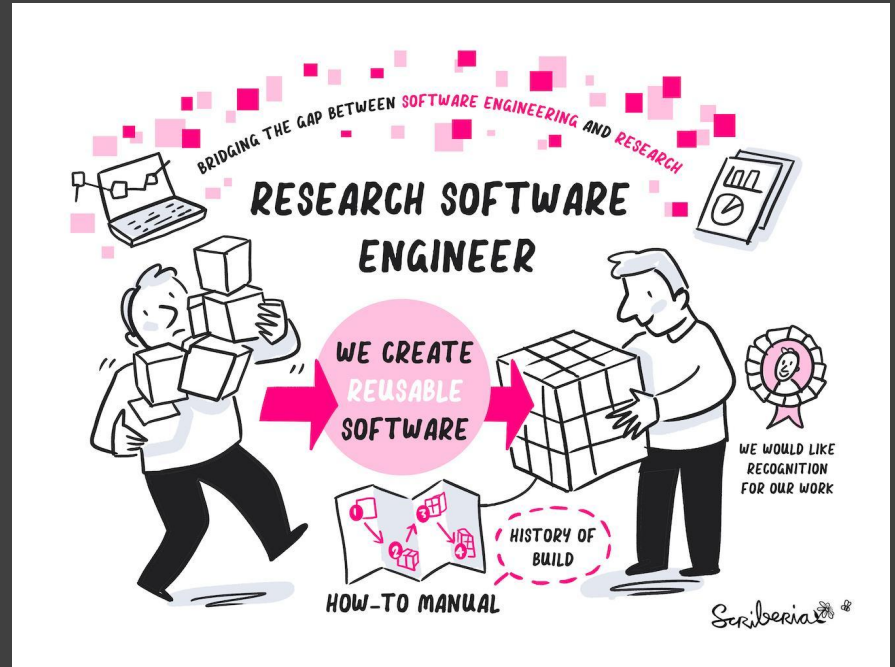
Baxter, R, Chue Hong, N, Gorissen, D, Hetherington, J & Todorov, I 2012, 'The Research Software Engineer', Digital Research 2012
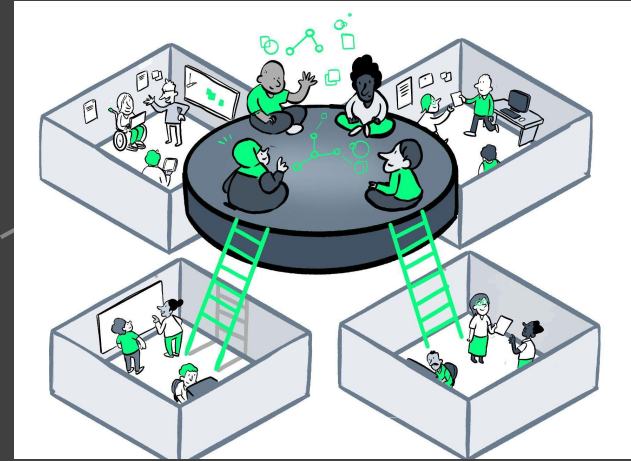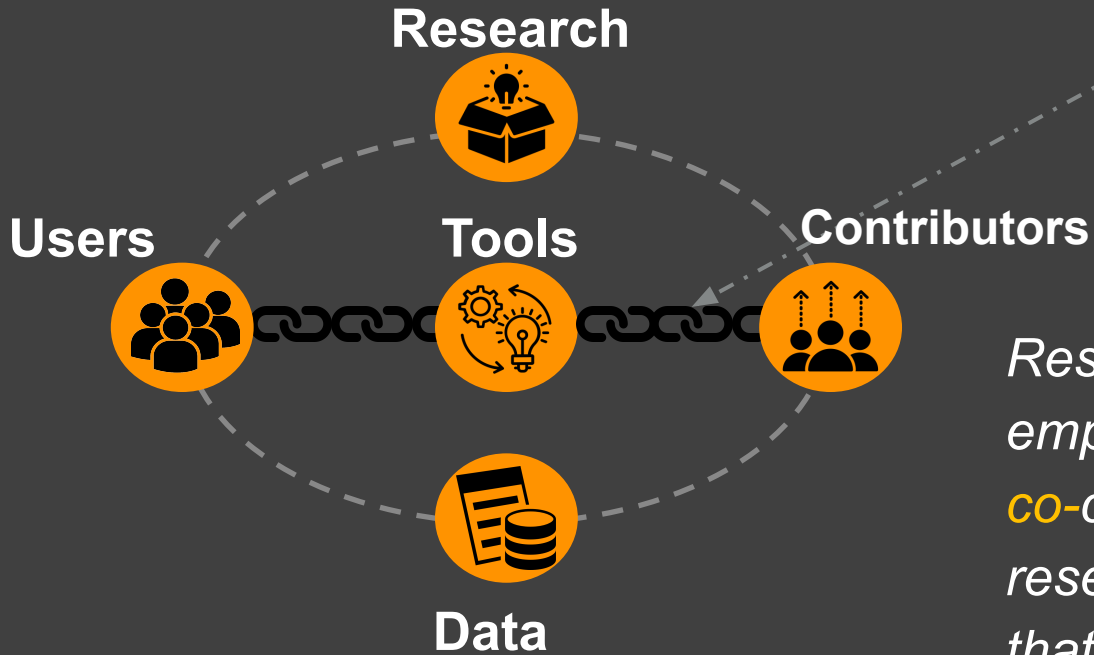
Diversifying Research Roles

Research Community Managers

Ethicists

Data Wranglers/Stewards

Research Applications Managers

Librarians

Public

Trainers, Mentors

Designers

Policymakers

Social Scientists

Research Software Engineers

Research Community Management

Users Research Tools Contributors Data

Research Community Managers empower diverse stakeholders to co-create, maintain and sustain research processes and outputs that they can equitably benefit from.

Research Community Manager (RCM)

Through open, inclusive and reproducible practices, RCMs build a shared understanding of research goals, roadmap and processes.

We combine a range of socio-technical skills including scientific communications, stakeholder engagement and domain expertise.

We facilitate, amplify and champion collaborative, community-based research processes and outcomes.

Emma Karoune

Open Research Community Management webpage

Now we'd like to learn about your experience!
20 min breakout discussion

In groups (about four people), you will discuss questions about your experience of research infrastructure roles

- Begin with intros!
  - What is your current role?
- Assign a **chair/facilitator** and a **note taker that documents the discussion**
- **Discuss questions 1 and 2**
- Afterwards: Report out

Breakout Discussion 1

🕐 **20 mins**

Question 1: Journey to research infrastructure/Hidden role
How have these roles been formalised - examples?
Or, if not yet formalised, how do you hope for these roles to be formalised?

Question 2: Career progression
What career pathways for progress look like for Hidden roles in your organisation?

The hidden REF
## Celebrating all research outputs

2021
1 category for Hidden Role in 2024

No limit to type of role

- Data stewards and managers
- Librarians
- Technicians
- Live experience contributors
- Research software engineers
- PRISMs - investment & strategy managers
- Public engagement professionals
- Professional services personnel
- Research managers and admins

Who entered Hidden REF 2021?
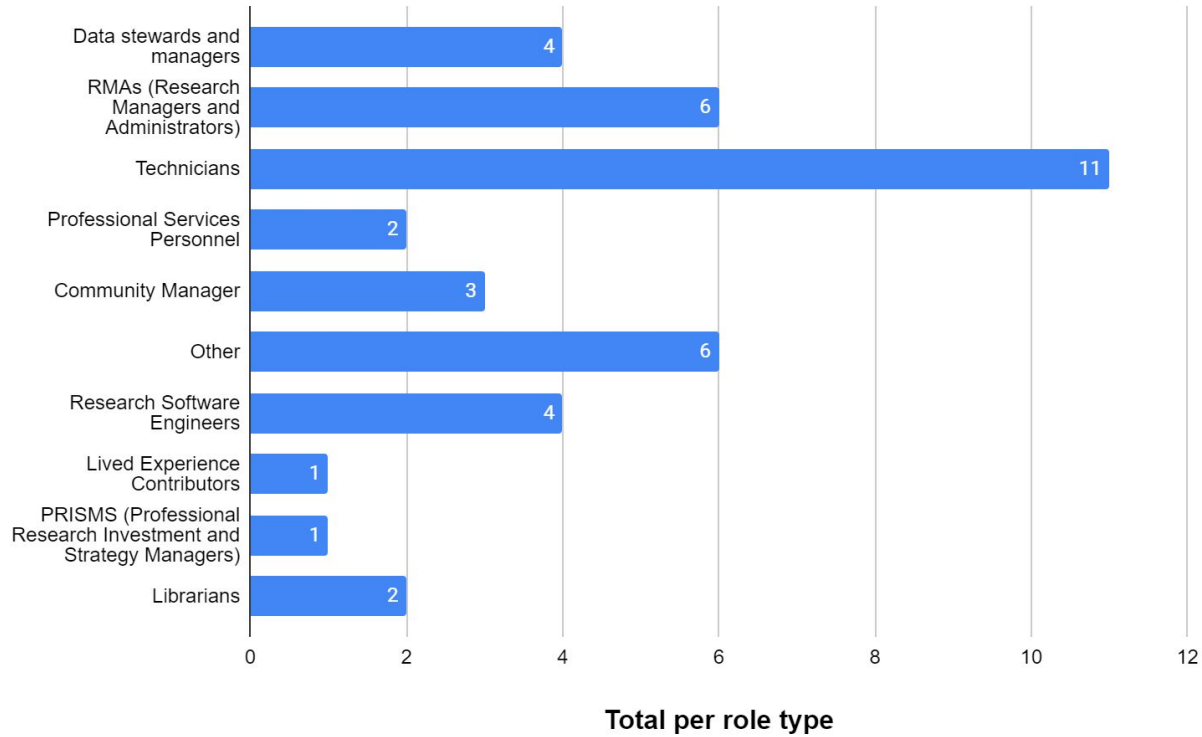
40 entries for this category
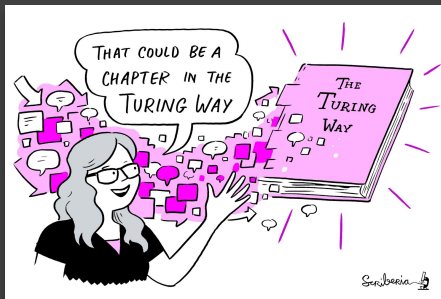
Breakout discussion 2

🕐 **10 mins**

Question 3: Recognition in Hidden REF 2024

How can these Hidden Roles be celebrated as categories in Hidden REF 2024?

The Turing Way

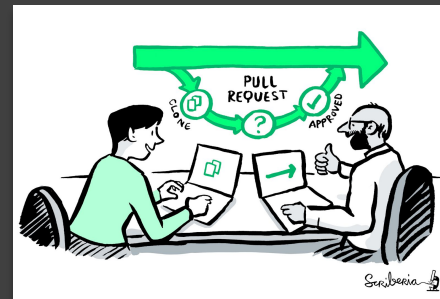## An Open Source guide on Data Science

We involve and support a diverse community to make data science reproducible, ethical, collaborative and inclusive for everyone

A book

A global community

An open-source project

A culture of collaboration

The Turing Way: Guides to Data Science

Kirstie Whitaker
Director: Tools, Practices & Systems Programme (TPS)

Malvika Sharan
TPS Senior Researcher: Open Research & Community

Anne Lee Steele
Community Manager, The Turing Way

Alexandra Araujo Alvarez
Project Manager

4+ years

>260 Chapters

Numerous training and community resources.

The Turing Way

Search this book...

Welcome

Guide for Reproducible Research ⌄

Guide for Project Design ⌄

Guide for Communication ⌄

Guide for Collaboration ⌄

Guide for Ethical Research ⌄

Community Handbook ⌄

Afterword ⌄

The Turing Way Guides

Reproducibility

Project design

Communication

Collaboration
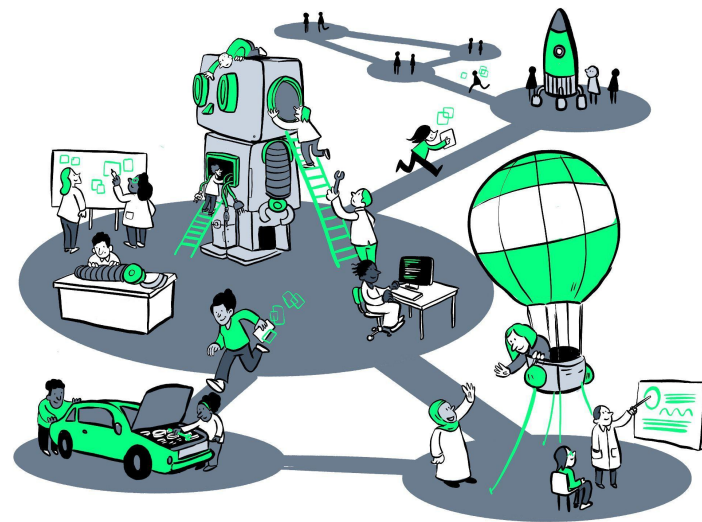

Ethical research

Community handbook

Examples of Research Infrastructure Roles

This initial list of examples of Research Infrastructure Roles that has been expanded as part of *The Turing Way* Hackathon Workshop at the Big Team Science conference 2022.

- Community manager
- Project manager
- Research software engineer
- Research application manager
- Programme manager
- Data steward
- Data wrangler
- Research infrastructure developer
- Partnerships development manager
- Grant application manager
- Community engagement lead
- Librarian
- Communications manager
- Events manager
- Participatory research manager

@turingway, https://the-turing-way.netlify.app/collaboration/research-infrastructure-roles.html, CC-BY 4.0 image by *The Turing Way* and Scriberia

Broader Recognition for Research Infrastructure Roles

- **The Turing Way Practitioners Hub** in close collaboration with UK orgs (government, industry, public sector)

- **The Turing's Skill Policy Award** for engaging with policy ecosystem - led by **Dr. Emma Karoune**
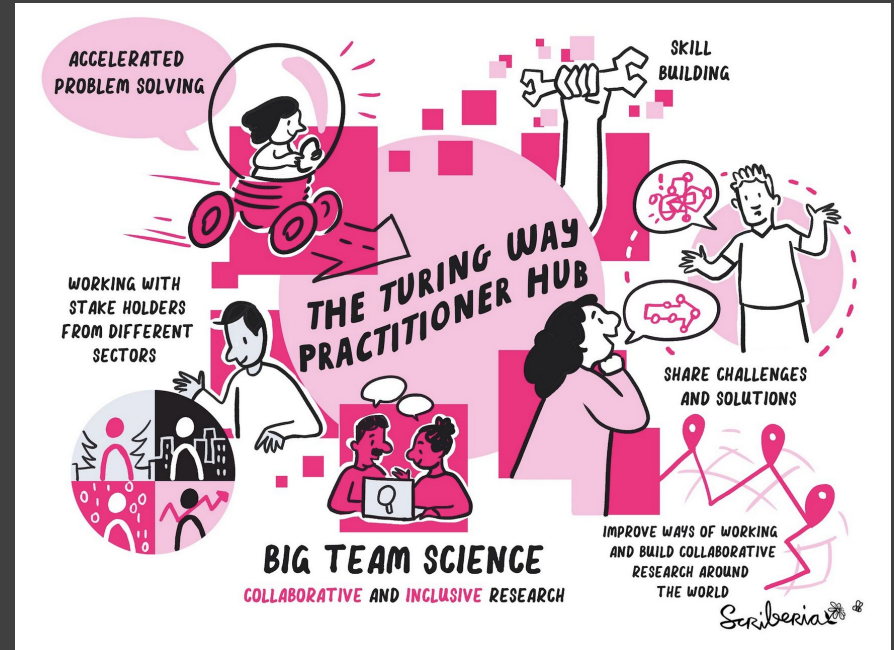
Policies / Guidelines for Open Leadership

Recognising all kinds of roles through recommendations & policies.

UK Research and Development Roadmap

Attract, retain, develop the talented, diverse people and teams. Ensure that our science, research, innovation system is responsive to our society

Towards better recognition for Research Infrastructure Specialists (Australia)

Professional staff become more valuable with experience and need to be rewarded as such – otherwise they will go elsewhere. Australian universities need to improve how they reward and recognise this important cohort of specialists, and the NCRIS Project Directors are calling for a change in how [Research Infrastructure] specialists are classified.

WE NEED TO MOVE AWAY FROM THE CONCEPT OF AUTHORSHIP...

FORMAL ANALYSIS

The

DATA CURATION

FUNDING ACQUISITION

Preprint
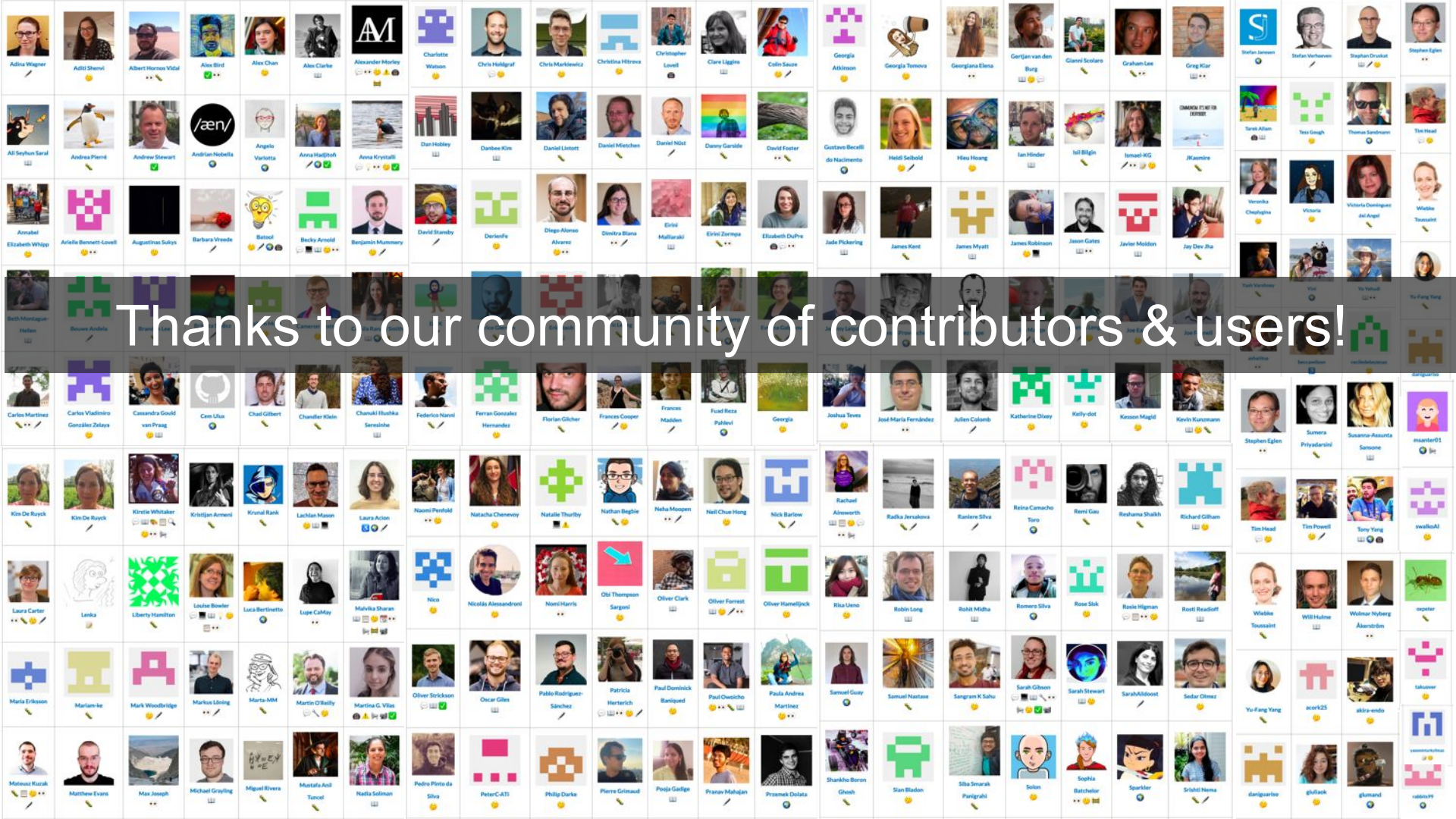A manifesto for rewarding and recognising Team Infrastructure Roles

AB TO IS SA HA   [View authors]

Summary
New module based on: Abstract for the Journal of Trial and Error special issue on 'Consequences of the Scientific Reform Movement'

Preprint: A manifesto for rewarding and recognising Team Infrastructure Roles, doi.org/10.53962/knm3-bnvx
https://www.gov.uk/government/publications/uk-research-and-development-roadmap - UK Reference,
https://anff.org.au/news/towards-better-recognition-for-research-infrastructure-specialists - Australia Reference

Thanks to our community of contributors & users!

Connecting with *The Turing Way* Project

- *Collaboration Cafes*

  – 1ˢᵗ & 3ʳᵈ Wednesdays (15:00 UTC+1)

- *Fireside Chats*

  – Monthly

- *More ways to connect*

  - *Join our slack channel*
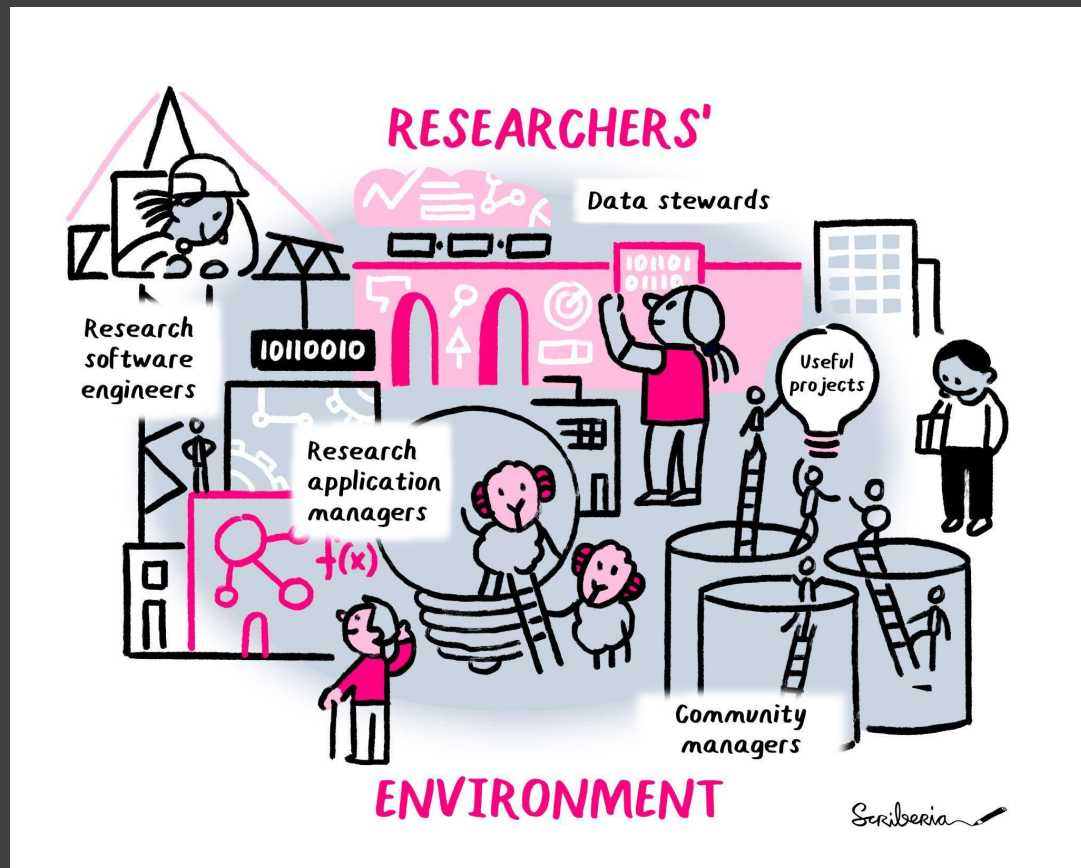 - *Sign up to our newsletter*

bit.ly/turingway
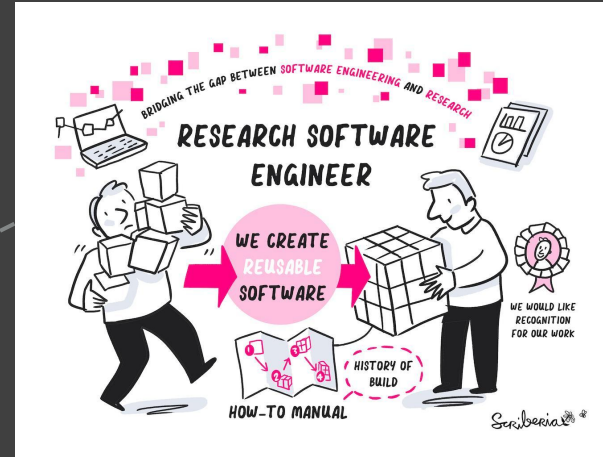
The
Alan Turing
Institute

Acknowledgements:

– The Turing Way team, Kirstie Whitaker, Malvika Sharan, Anne Lee Steele, Alexandra Araujo Alvarez

– *The Turing Way* community, contributors & collaborators

– Book: the-turing-way.netlify.com

– Twitter: twitter.com/turingway / Mastodon: https://fosstodon.org/@turingway

– Newsletter: tinyletter.com/TuringWay

– Slack: tinyurl.com/jointuringwayslack

– GitHub: github.com/alan-turing-institute/the-turing-way

– Original artwork by Scriberia: https://doi.org/10.5281/zenodo.3332807

More examples of research infrastructure roles for your reference

Research Data & Engineering Roles

Research

BRIDGING THE GAP BETWEEN SOFTWARE ENGINEERING AND RESEARCH

RESEARCH SOFTWARE ENGINEER

WE CREATE REUSABLE SOFTWARE

WE WOULD LIKE RECOGNITION FOR OUR WORK

HISTORY OF BUILD

HOW-TO MANUAL

Scriberia

The Research Engineering is a professional field that includes Research Data Scientists and Research Software Engineers. They are expert collaborators who bring their technical knowledge and data skills to research projects.

Research Data Scientist (RDS)

We are generalists with broad skills working with data and specialist researchers across domains.

RDS creates open and reusable tools to ask questions and draw insights from data.

As expert collaborators, we apply reproducible research best practices to research directly through collaboration.

Lydia France
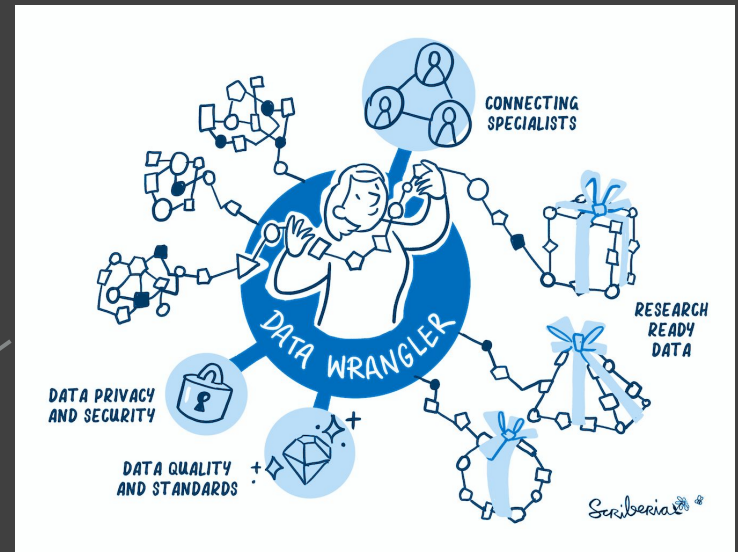
Research Software Engineer (RSE)
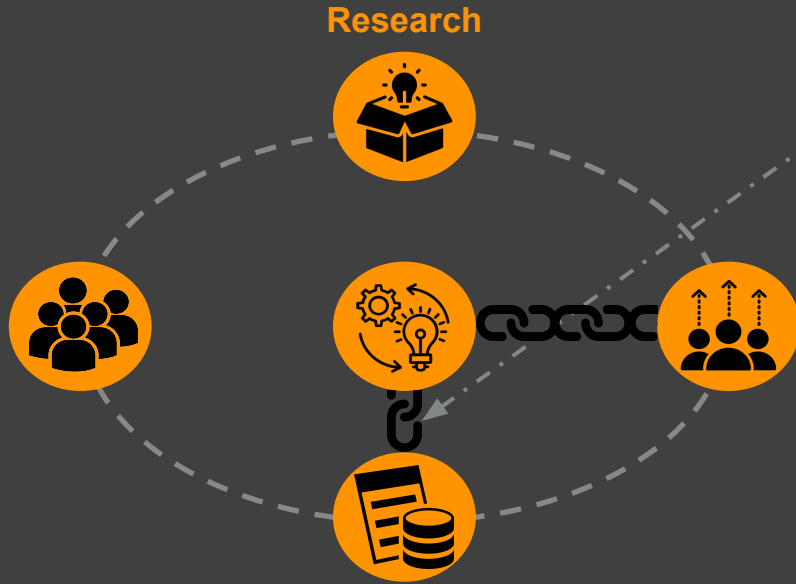
RSEs promote *software-development best practices* *in research software through practices such as version control, testing, documentation and reusability.*

We apply and teach *broad set of technical skills* *and expertise by being embedded on research projects.*

Jim Madge

Data Wrangling

Research

Data Wranglers are specialised type of data scientists, primarily working with data in the space between data generators & data analysts.

Data Wrangler

Data Wranglers are involved in projects with many datasets, or *complex data needs*.

We understand the intended use of the data and *conduct preliminary analysis* in the context of research questions.

We collaborate with multiple specialists to *provide 'research-ready data'* whilst upholding domain-specific standards and data privacy regulations.

Mahwish Mohammad

Data Stewardship
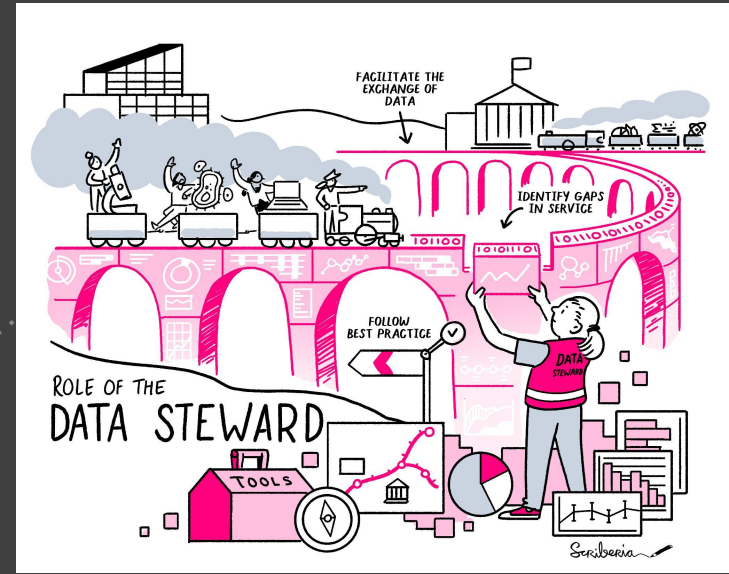
Research

'Data Steward' is an umbrella term for numerous infrastructure support roles that involve the creation, management and usage of research data.

Data Steward

We advise researchers on how to *manage data and other research objects* including which storage locations to use and what are best practices to share them.

We deliver *Research Data Management and Open Science* courses for PhD researchers and check *Data Management Plans* for wide range of research projects.

Esther Plomp

# Research Applications Manager
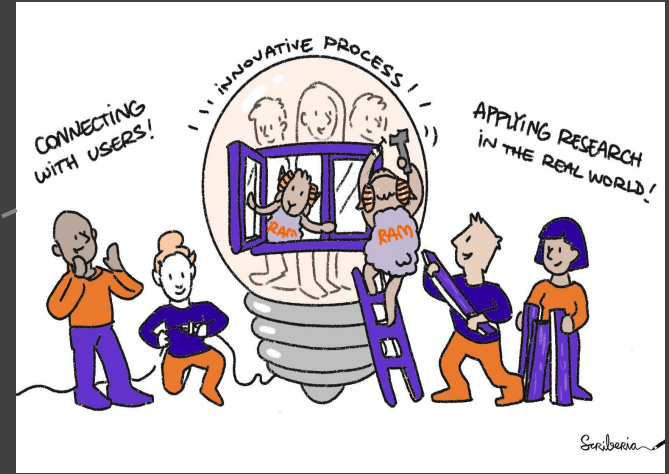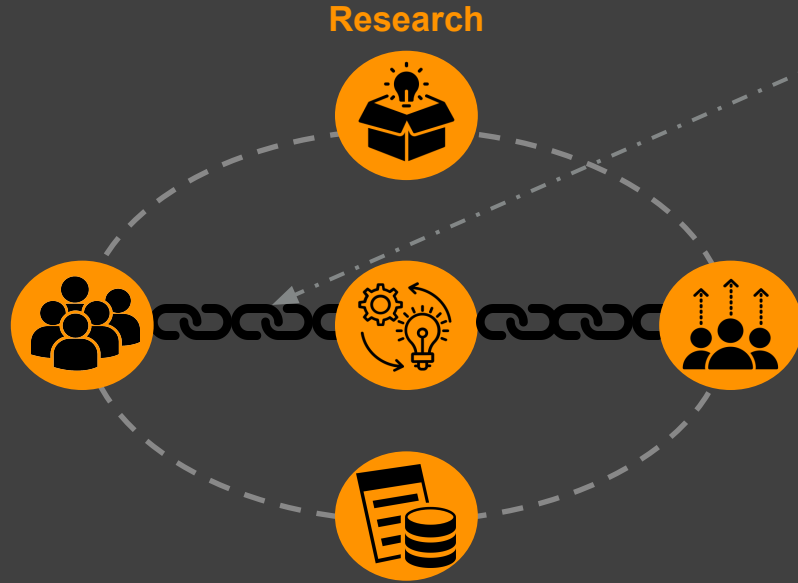
Research

A Research Applications Manager engages external stakeholders to adapt research outputs for real-world use.
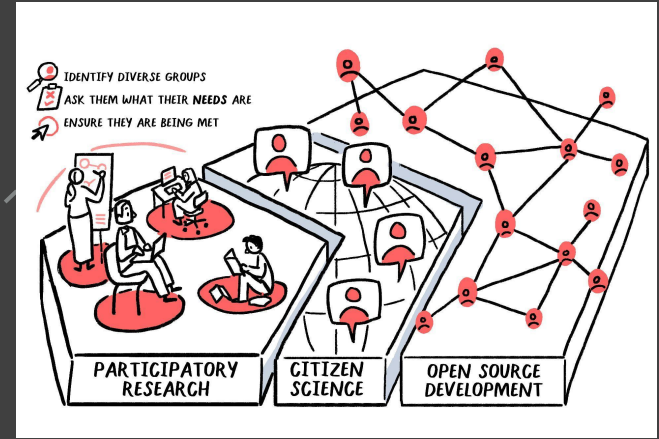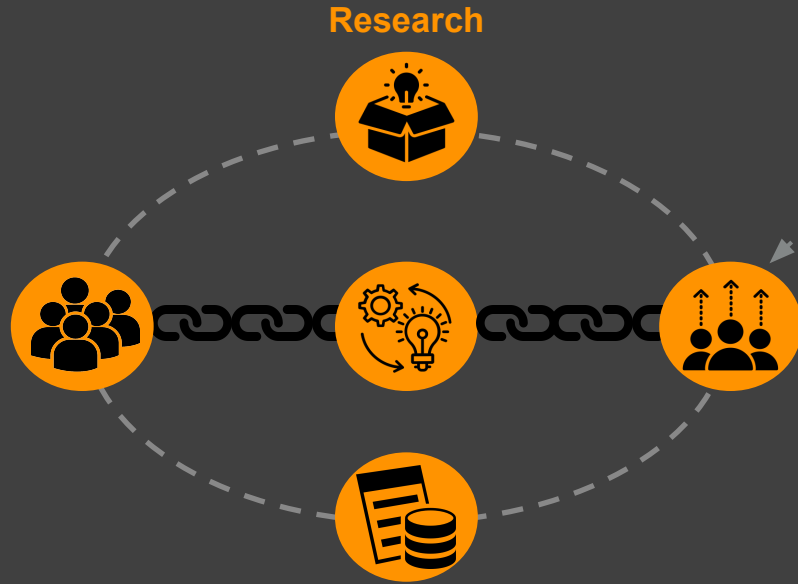
Research Applications Management (RAM)

RAMs make research outputs to be more usable and support their adoption by people outside of academia.

Working with research teams, we embed user needs and real-world impact potential in the design of research outputs.
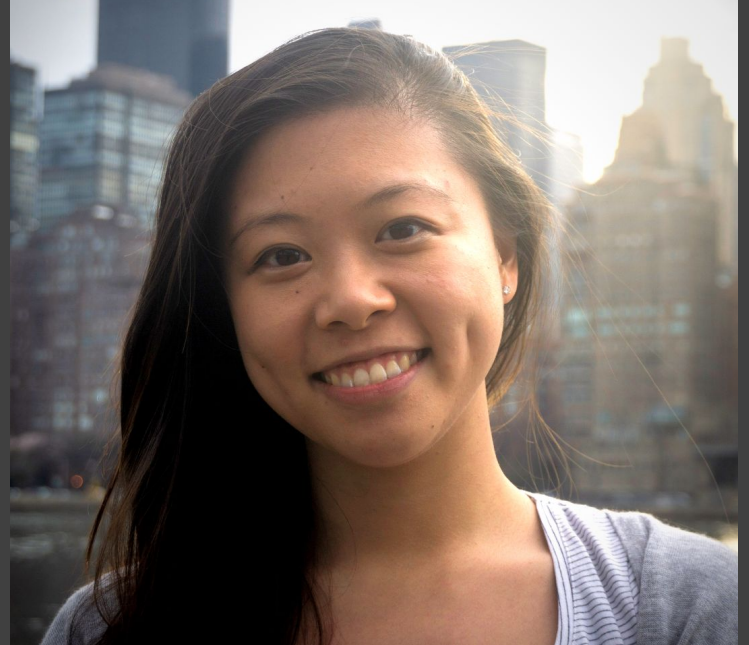
Jennifer Ding

Participatory Citizen Science

Research

Citizen Scientists engage the public in *doing* research. They bring a diverse set of practices ranging from crowdsourcing over co-creation to co-leadership.

Citizen Science Practitioner

We are a community of *informal or* *non-professional community researchers* *who frame and operationalise research in the real-world contexts.*

We *connect academic and informal researchers* *to ensure research is done ethically &* *supports the real needs of those affected* *by the research outputs.*

Bastian Greshake Tzovaras

Research Ethicist
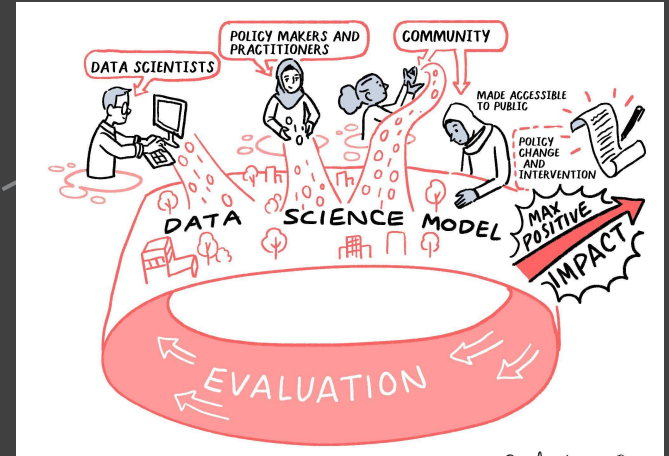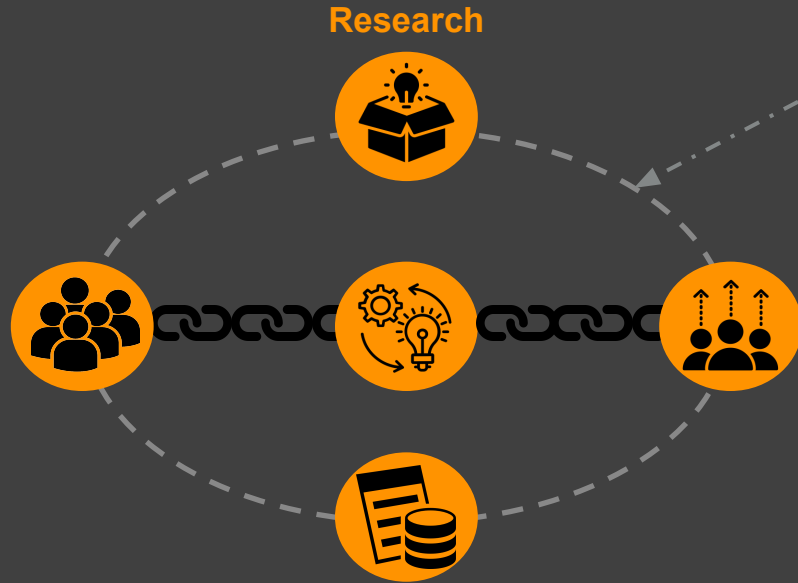
Research

An ethicist studies the ethical implications of research and innovation projects, especially in their applications in society and shares practices that make research responsible.

Research Ethicist

Research Ethicists conduct research to understand the ethical implications of the use of [AI] systems and data-driven technologies in society.

We explore ways to enhance public participation and deliberate ethical guidelines for the use of these systems.

We provide training and resources for ethics and responsible research and innovation.


Claudia Fischer

Research Ethics Manager

Research Ethics Managers ensure that the *guidances on data and [AI] ethics, and open* *science are applied* *to the Institute's research.*

We identify *potential improvements to the* *system*, *develop trainings on ethics approval* *and* *recruit diverse members on ethics review* *panel and decision-making.*

We *manage each application's journey* *from* *submission to review to approval decision, and* *provide feedback on ethics applications.*

Victoria Kwan

Research Project Management
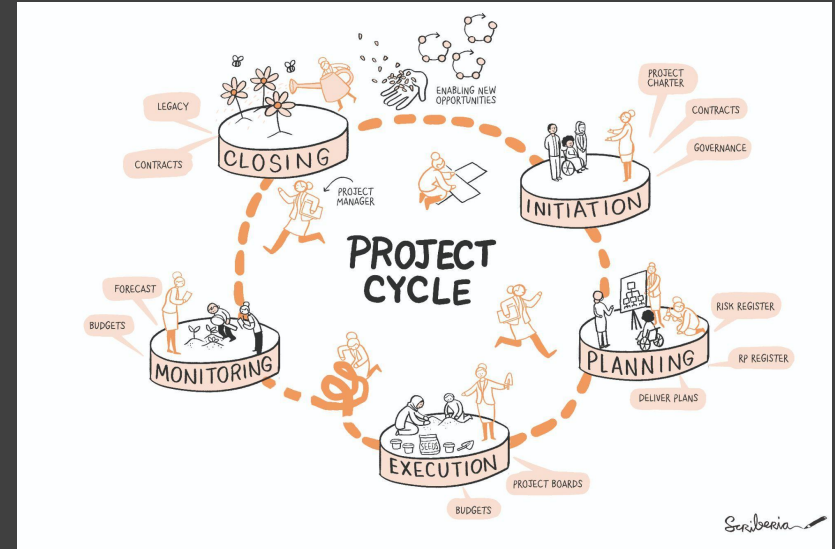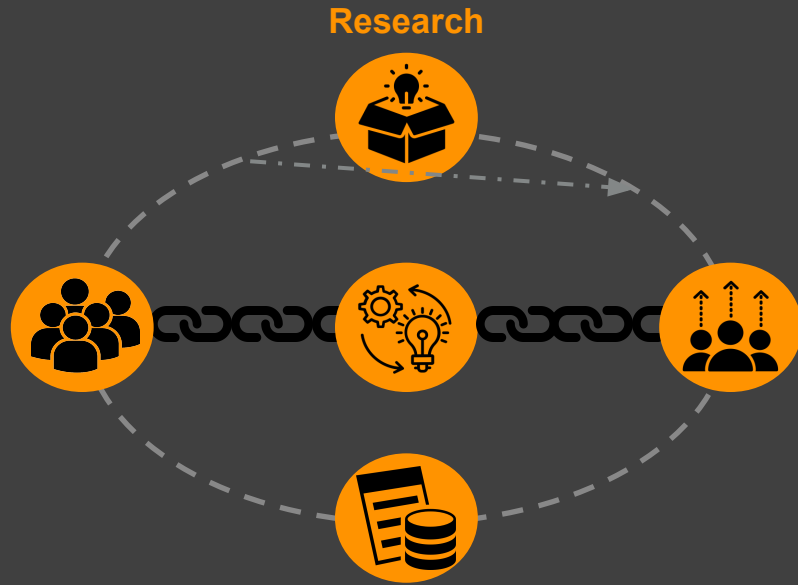
Research

Research Programme/Project Managers ensure all project cycles are executed on time, following the agreed protocols and in line with the Institute's policies.

Research Project Manager

Research Project Managers ensure that the projects are delivered on time and within budget*.*
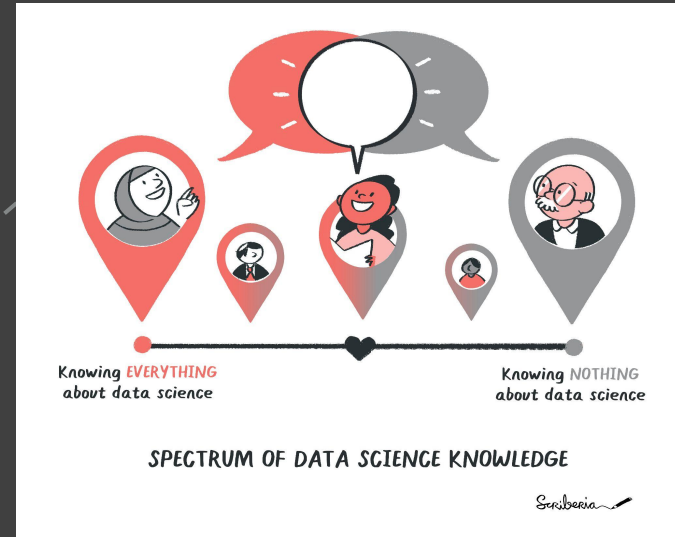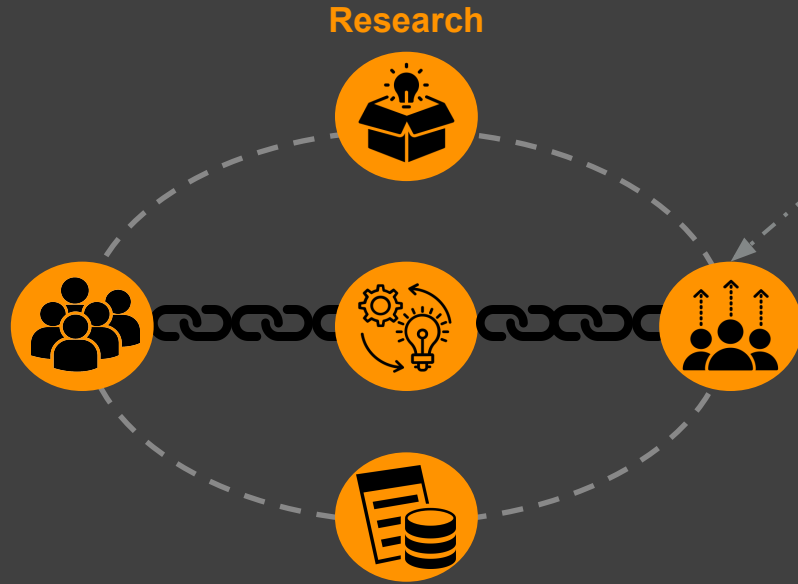
We ensure that everyone involved in the project comply *with* The Institute's processes and policies*.*

We manage the project budget*, and support the* documentation, reports and governance*.*

Alexandra Araujo Alvarez

Skills Officer

Research

Knowing EVERYTHING about data science

Knowing NOTHING about data science

SPECTRUM OF DATA SCIENCE KNOWLEDGE

A Skills Officer works with subject matter experts to implement collaborative design, development and delivery of [data] skills opportunities and learning resources.

Skills Officer

Skills Officers support individuals, teams or organisations in learning new methodologies and applying them in their own projects. We provide training and resources for the general public.

I lead the <u>Data Science and AI Educators' Programme</u>, which is aimed at upskilling HE educators in essential teaching pedagogy, both more widely and specific to their role as Data Science and AI educators.

Ayesha Magill

End of Examples