The Alan Turing Institute

Co-creating The Turing Way with global community



Malvika Sharan, Melissa Black, Esther Plomp Pronouns: she/her/hers

@turingway, CC-BY 4.0, Zenodo: https://zenodo.org/record/7849391, DOI: 10.5281/zenodo.7849391

The Turing Way

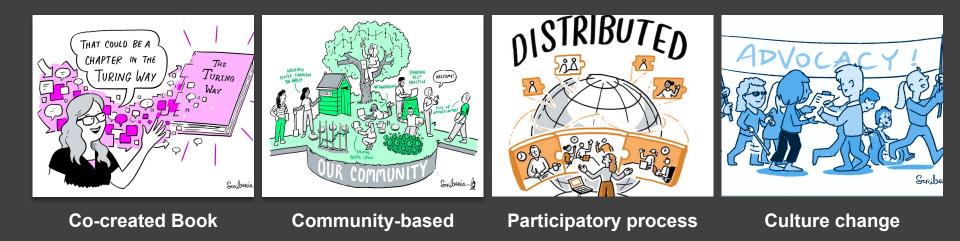
A community-led project on data science.

We are an open source, open collaboration and globally distributed community working together to make data science accessible, reproducible and beneficial.

The Turing Way

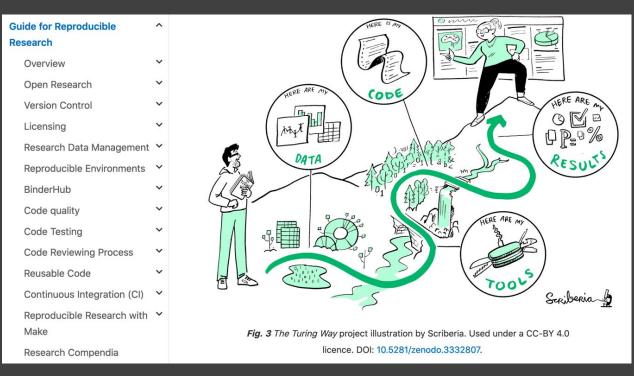
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The Turing Way: Book on Reproducibility



@turingway, CC-BY 4.0, Zenodo: https://zenodo.org/record/7849391, CC-BY 4.0 Book: https://the-turing-way.netlify.app

The Turing Way: Book on Reproducibility



Open and reproducible research along with good collaboration, communication and ethics should be seen as fundamental research methods.

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The Turing Way: Guides on Data Science



Director: Tools, Practices & Systems <u>Prog</u>ramme (TPS)



Anne Lee Steele

Community Manager, The Turing Way



Malvika Sharan

TPS Senior Researcher: Open Research & Community



Alexandra Araujo Alvarez Project Manager 4+ years

>260 Chapters

Numerous training and community resources.



The Turing Way

Q 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	~

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Adius Wagner	Asti Sherri	Abert Hornor Vidal	Alex Bird	Alex Chan	Alex Carlie	Alexander Morley	Charlotte Watson	Chris Holdgar G 🖉 🖉	Chris Markiewicz	Christian Hitrova	Christopher Lovell	Ciare Liggins	Cein Saze	Georgia Atkinson	Georgia Tennova	Georgians Elena	Gertjan van den Børg E	Glasni Scolaro	GrahamLee	Creg Klar Lin ++	Stefan Jarosan O	Stefan Verhoeven	Stephan Bruskat	Suphen Laten
Ali Seyhun Saral	Andrea Pierré	Antree Stewart	/æn/ Andrian Nobelia	Angelo Variotta	Asra Haditon	Anna Krystalli	Dan Hobley	Danbee Kins	Daniel Lintoff	Daniel Mistches	Dursiel Nost	Danny Garaide	David Fester	Guntavo Becelli do Nacimento O	Held Selbold	Heu Hoang	Lan Hinder	Isil Bilgin	Invad KG	Changes PT an Fa Torston L JKaumice	Brek Alan 🗎 🖾	Tess Gough	Thomas Sandhaarn	Tix Head
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Project Growth & Recognitions

- 425+ contributors, 3500+ monthly users supported by 25+ core members (governance)
- 2 awards and engagement with 25+ orgs
- References in 40+ peer reviewed articles and 100s of publications, reports, policy documents
- Replication/extension by 3 Turing & 7+ external projects





@turingway, https://star-history.t9t.io/#alan-turing-institute/the-turing-way, Zenodo: https://zenodo.org/record/7849391

Belongs to the community

This is **not** a Turing project - although it has great support from the Institute.

This is always a work in progress - evolving with the needs in the community.

We are creating community resources together -- it's about the way, *the journey, not a set of rules.*



https://www.turing.ac.uk/research/impact-stories/changing-culture-data-science @turingway, https://star-history.t9t.io/#alan-turing-institute/the-turing-way, Zenodo: https://zenodo.org/record/7849391 Localisation & Translation

Will be presented by Melissa Black

Editors and Reviewers

Vicky Hellon, Jen Ding, Hari Sood, Esther Plomp

Trainers and Mentors

Emma Karoune, Eirini Zormpa, Alden Conner



Different PathWAYs in The Turing Way

Research Infrastructure Roles

Will be presented by **Esther Plomp**

Infrastructure Maintainers

Sarah Gibson, Jim Madge, Danny Garside, Brigitta Sipőcz

Practitioners Hub

Alexandra Araujo Alvarez, Jen Ding, *Job Coming soon!*

Environmental Data Science

Alejandro Coca, Anne Fouilloux

Book Dash Planning

Team and term-based roles.



Spectrum of Public Participation – Organizing Engagement. https://organizingengagement.org/models/spectrum-of-public-participation

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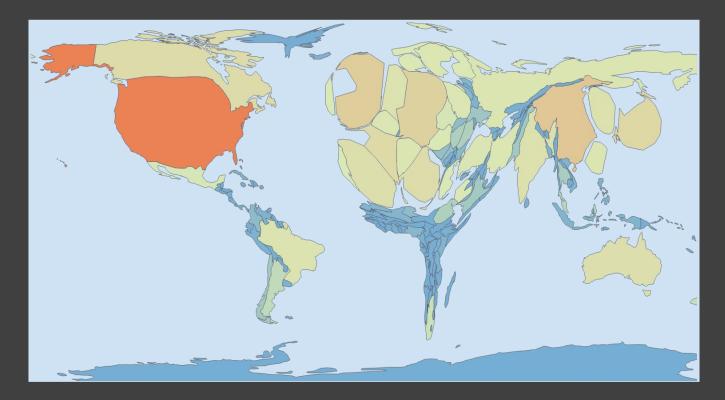
Spectrum of Public Participation – Organizing Engagement. https://organizingengagement.org/models/spectrum-of-public-participation

What does a resource for a global data science community look like?

- Language of "open science"
 materials is primarily in English
- What do best practices look like in different cultural contexts?
- How can *The Turing Way* truly become a global resource?



Unequal contribution and participation in Knowledge Production



World scaled by number of documents in Web of Science by authors living there, 2011 - data by Juan Pablo Alperin https://figshare.com/articles/figure/World_scaled_by_number_of_documents_in_Web_of_Science_2012_by_Authors_Living_There/953177



Multilingualism in Open Science

Language enables the delivery of information and knowledge coded in different sociocultural, political, and economic contexts.

"... an inclusive construct that combines various movements and practices aiming to make multilingual scientific knowledge openly available ..." UNESCO definition of Open Science

"Development and localisation of training materials, i.e. making sure they are suitable for use in a range of countries, regions or languages, is a priority under the Recommendation..."

UNESCO toolkit for Building capacity for Open Science

Multilingualism and Linguistic diversity. (2023, April 20). https://www.unesco.org/en/multilingualism-linguistic-diversity, UNESCO Open Science: https://www.unesco.org/en/open-science and https://www.unesco.org/en/open-science/toolkit

Multilingualism and Internationalisation in Open Science

- Making science open requires diverse, multilingual and locally relevant research accessible for a wide audience.
- Open Science has much to gain and offer in engaging with geolinguistic diverse participants.
- Internationalisation allows open source/research projects to identify and support the needs of multiple locales.

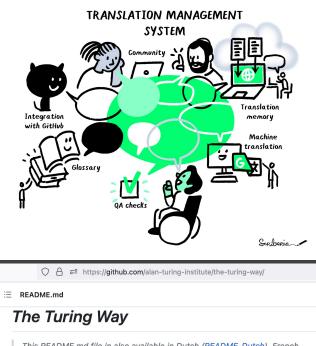


Localisation in The Turing Way

Recent advances in translation technologies has enabled the development of a multilingual dissemination system for Open resources.

A Translation Management System (TMS) manages the localisation process from the beginning until the finished translated product.

Sharing our translation process and journey has been crucial for involving new members and making their collaboration possible.



This README.md file in also available in Dutch (README-Dutch), French (README-French.md), German (README-German.md), Indonesian (README-Indonesian), Italian (README-Italian), Korean (README-Korean), Portuguese (README-Portuguese), and Spanish (README-Spanish) (listed alphabetically).

https://github.com/alan-turing-institute/the-turing-way, https://github.com/TW/Translation, CC-BY 4.0, https://zenodo.org/record/7849391

Governance of The Turing Way translation and localisation team



Batool Almarzouq



Melissa Black



Andrea Sánchez-Tapia



Anıl Tuncel



Alejandro Coca-Castro



Cigdem Ozen



Camila Rangel Smith



Asma Kacem

Tran Shar

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OVERVIEW README													
Q Search				The Turing Way is a handbook to	Public	Turkish-specific-Translation-rules	Public						
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Chinese Simplified (zh-CN)	_	15% • 0%	228 890	everyone. Details									
French (fr)		72% • 0%	75 680	Source Contrit	SIG								
Japanese (ja)		68% • 0%	87 125	Source Create	TURE	Type - Language	- Sort -						
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Turkish (tr)		2% · 0%	268 587	(A) @andreasancheztapia									

TWTranslation

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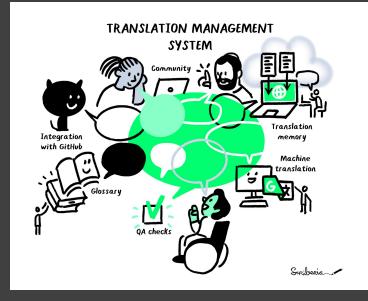
https://github.com/alan-turing-institute/the-turing-way, https://github.com/TWTranslation, CC-BY 4.0, https://zenodo.org/record/7849391

Choose your 'Ways' towards localisation

You want to convey open knowledge to a wider community of non English speakers - join us!

Read our contribution guideline, translation priorities and choose your roles

 translator, proofreader, manager, infrastructure, documentation, reuse translation memory for your own project, onboard and support others!



Join our community on twitter: @turingway, GitHub: https://github.com/alan-turing-institute/the-turing-way. Book: https://the-turing-way.netlify.app, Images by The Turing Way community and Scriberia under CC-BY 4.0 License Localisation & Translation

Will be presented by **Melissa Black**

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Different PathWAYs in The Turing Way

Research Infrastructure Roles

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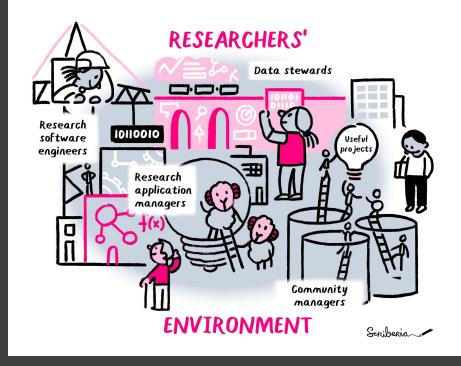
Team and term-based roles.



Spectrum of Public Participation – Organizing Engagement. https://organizingengagement.org/models/spectrum-of-public-participation

Research Infrastructure Roles

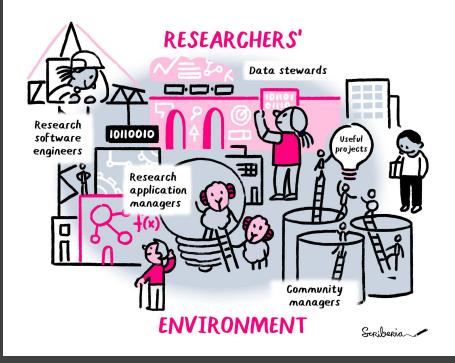
Successful research and scientific collaborations rarely occur without facilitation, support and maintenance of the work.



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Research Infrastructure Roles

Research infrastructure roles provide specialised skills, expertise and services required to effectively carry out high-quality research.



@turingway, CC-BY 4.0 image by *The Turing Way* and Scriberia, Zenodo: https://zenodo.org/record/7849391 Reference Presentation on 'Investing in Research Infrastructure Roles for culture change' https://zenodo.org/record/7620215

Research Infrastructure Roles 🔥

Community Managers Overview

Data Stewards Overview

Data Steward Personal Story

Data Wrangler Overview

Research Software Engineers Overview

Research Software Engineering Personal Story

Research Application Manager Overview

Research Infrastructure

Developer Overview

Remote Collaboration

Shared Ownership in Open Source Projects

Guide for 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

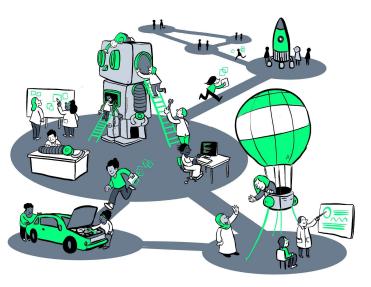
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- Communications manager
- Events manager
- Participatory research manager



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

Research Infrastructure Roles

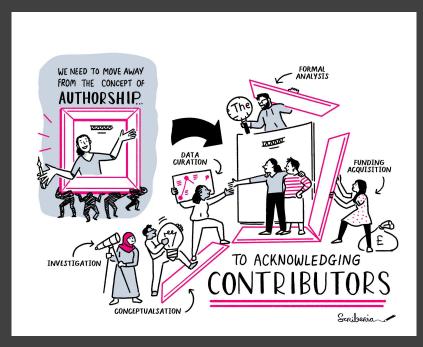
Changing research culture: recognising all kinds of roles

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.



@turingway, CC-BY 4.0, CC-BY image by The Turing Way and Scriberia, Zenodo: https://zenodo.org/record/7849391, 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

Research Infrastructure Roles

Rewarding and recognising Team Infrastructure Roles



Arielle Bennett Programme Manager

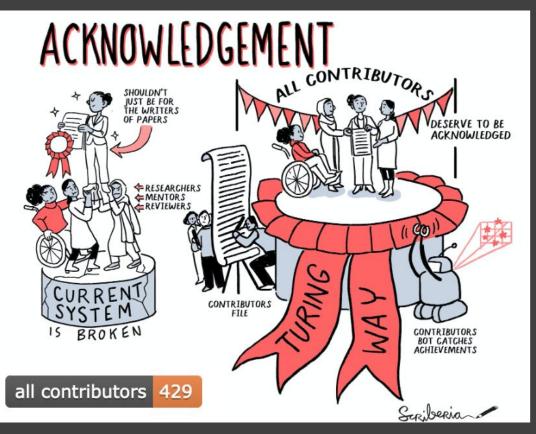
@<u>biiotechchat</u> abennett@turing.ac.uk



Esther Plomp Data Steward <u>@toothfairy</u> e.plomp@tudelft.nl Preprint: A manifesto for rewarding and recognising Team Infrastructure Roles https://doi.org/10.53962/knm3 _bnvx

Link to slides: https://doi.org/10.5281/zenodo.7780819

Recognition for all Contributors



Afterword

Glossary

Bibliography

Contributors Record

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Recognize All Contributors

Including those that don't push code

Cite as: *The Turing Way Community.* (2022). *The Turing Way: A handbook for reproducible, ethical and collaborative research (1.0.2). Zenodo. https://doi.org/10.5281/zenodo.7625728*

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Many Pathways for Contribution



Develop



Maintain & improve



Share resources



Review and update



Make it global



Share best practices

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Team and term-based roles.

Start your journey, pave a new way: *the-turing-way.start.page*

The Turing Way Channels

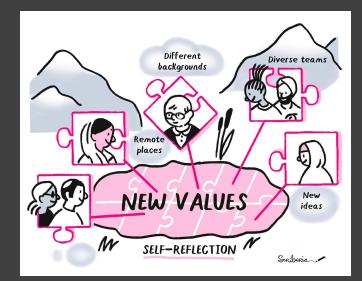
- Translation co-working: Tuesday (16:00 UTC)
- Collaboration Cafes
 - 1st & 3rd Wednesdays (14:00 UTC)

- Outreachy



- Book Dash: May and November yearly

Your contribution is important - we record and acknowledge in the README file and in the book.



the-turing-way.start.page

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Growing *The Turing Way*: moving at the speed of trust

- Shifting from a grassroots open science project to a global collaboration takes intentional care
- Working towards shifting mindset to sustainability first in infrastructure as well as environment.

Facilitating & maintaining in many WAYs



@da5nsy @aleesteele @turingway, Images by Scriberia for The Turing Way, CC-BY 4.0, Slides: doi.org/10.5281/zenodo.7732459



Move fast and break things Collaborate, move slowly, maintain things

@da5nsy @aleesteele @turingway, Images by Scriberia for The Turing Way, CC-BY 4.0, Slides: doi.org/10.5281/zenodo.7732459

Acknowledgements & Links

The Turing Way Community

- Localisation and Translation Team & Research Infrastructure Activists!
- Kirstie Whitaker, Anne Lee Steele, Alexandra Araujo Alvarez + many Turing Way Core Team and Turing's TPS team members
- Book: <u>the-turing-way.netlify.com</u>, <u>Twitter</u>: twitter.com/turingway
- GitHub: github.com/alan-turing-institute/the-turing-way
- Useful links & opportunities are listed here: <u>https://bit.ly/turingway</u>

Slide reuses previous talks developed by several Turing Way members including Anne Lee Steele, Batool Almarzouq, Andrea Tapia Sanchez and Danny Garside.

Images used in this talk have been co-developed by Scriberia and The Turing Way community, shared under CC-BY 4.0. https://zenodo.org/record/7587336

The Alan Turing Institute





Anne Lee Steele (she/her) 2 days ago

Just used the phrase "I'm the Community Manager of The Turing Way, an open source project and community that documents, maintains, and translates best practices in data science and Al." to describe The Turing Way to someone (my first time using this particular wording)... and it made me think of the one-liners we use to describe the project. What other one-liners do people use? How have they changed in the past few years?



What other one-liners do people use?

4 replies

Anne Lee Steele (she/her) 1 day ago

- A few ones that come to mind are:
- "The Turing Way is an community-led handbook to best practices in data science"
- "The Turing Way aims to make reproducibility too easy not to do by collecting best practices into a collection of open source guides"
- "The Turing Way involves and supports a diverse community to make data science reproducible, ethical, collaborative, and inclusive for • all" (taken from our default slide deck)



Malvika Sharan 1 day ago

Adding one more: The Turing Way is an open so handbook on reproducibility, we are a global com that the key is curating what I say to that particular listener! everyone.

2

KirstieJane 11 hours ago

I've been thinking about this question. I feel like I say something different about The Turing Way every time I mention it!

There's something about it being so many things that the key is curating what I say to that particular listener!



means different things and becomes what they do. #FeatureNotABug?

say something different about The Turing Way every time I mention it!

Malvika Sharan 9 hour.

Based on the "way" of the Turing Way that people take, it means different things and becomes what they do. #FeatureNotABug? (edited)

100 1 (3)