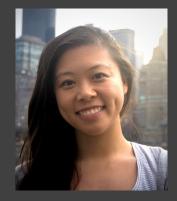
The Alan Turing Institute

Research Infrastructure Roles Hackathon

27 October 2022 Arielle Bennett, Jennifer Ding, Anne Lee Steele



Introductions



Jennifer Ding Research Application Manager,

The Alan Turing Institute TTW Core Contributor



Arielle Bennett

Programme Manager, Tools, Practices and Systems, The Alan Turing Institute, TTW Core Contributor



Anne Lee Steele Community Manager *The Turing Way*, The Alan Turing Institute

Overview



- 1. What is *The Turing Way?*
- 2. What is research infrastructure?
- 3. Discussion & Writing
- 4. Share-outs and Next Steps

Overview



1. What is The Turing Way?

- 2. What is research infrastructure?
- 3. Discussion & Writing
- 4. Share-outs and Next Steps

The Turing Way

Open Source guides for Data Science and Research

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



About The Turing Way Guides



How we practice open source and collaborative All Contributors documentation

分 Edit Pins ▼ ③ Um

Recognize All Contributors

양 main - 양 108 branches	e E 8 tage	Go to file Add fil		iding those that don't push code
	est #2748 from al 🗸		10,515 commits	Host repository for The Turing Way: a how to guide for reproducible data
github	Merge pull request #2748 fr	rom alan-turing-institut	17 hours ago	science
README-translated	j⊋Fix typo and outdated lab	els on the French transl	6 days ago	
book	Merge pull request #2744 fr	rom vhellon/main	2 days ago	community education data-science hacktoberfest hut23 hut23-270
communications	Merge pull request #2357 fr	rom alan-turing-institut	4 months ago	hut23-396
conferences	[MNT] Update links and refe	erences from master to	12 months ago	🕮 Readme
open-life-science-mento	Update README.md		11 months ago	هلِهُ View license
project_management	Merge pull request #1735 fr	rom alan-turing-institut	5 months ago	S Code of conduct
tests	Update configuration for Ya	ml parser	5 months ago	Cite this repository - ☆ 1.4k stars
workshops	Added GitHub workshops to	README	15 days ago	 50 watching
.all-contributorsrc	update .all-contributorsrc [s	skip ci]	11 days ago	왕 527 forks

⑦ Issues 437 11 Pull requests 85 ☑ Discussions ⑥ Actions

alan-turing-institute / the-turing-way Public

<> Code

ng-way.netlify.app

NISTRIBUTEN

Collaboration in practice



Collaboration Cafes (bimonthly) and Coworking Calls (weekly)

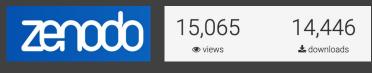


Book Dash Events (biannual – in-person, virtual, hybrid)

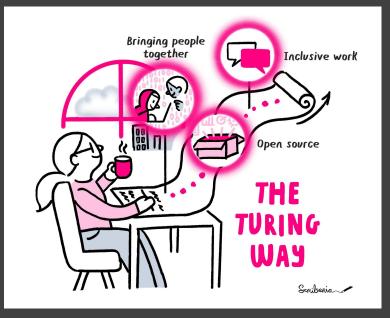
Project and Community Growth



- ~4 years, >250+ live chapters
- 390+ direct contributors on Github
- 1000s of users, 14k+ downloads of images
- Used in policy, education, advocacy, training contexts



https://zenodo.org/record/3332807



Adina Wagner	Aditi Shenvi	Albert Hornos Vidal	Alex Bird	Alex Chan	Alex Clarke	Alexander Morley	Charlotte Watton	Chris Holdgraf © 0	Chris Markiewicz	Christina Hitrova	Christopher Lovell	Clare Liggins	Colin Sauze	Georgia Atkinson	Georgia Tomova	Georgiana Elena	Gertjan van den Burg I 🌒 😒 💬	Glanni Scolaro	Graham Lee	Greg Klar	Stefan Janssen ©	Stefan Verhoeven	Stephan Druskat	Stephen Egien
Ali Seyhun Saral	Andrea Pierré	Andrew Stewart	Andrian Nobella	Angelo Variotta	Anna Hadjitofi	Anna Krystalli 💬 💡 👀 💝 🏹	Dan Hobley	Danbee Kim	Daniel Lintott	Daniel Mietchen	Daniel Nüst	Danny Garside	David Foster	Gustavo Becelli do Nacimento ©	Heidi Seibold	Hieu Hoang	Ian Hinder	Isil Bilgin	Ismael-KG	COMMINSM ITS HET FOR ENTRYINGT L JKassmire	Tarek Allan e III	Tess Gough	Thomas Sandmann ©	Tin Head © ©
Annabel Elizabeth Whipp	Arielle Bennett-Lovell	Augustinas Sukys	Barbara Vreede	Batool	Becky Arnold	Benjamin Mummery	David Stansby	DerienFe ©	Diego Alonso Alvarez 20 00	Dimitra Blana	Eiriel Malliaraki	Eirini Zormpa	Elizabeth DuPre	Jade Pickering	James Kent	James Myatt	James Robinson		L	Jay Dev Jha	ST 55	Victoria ©	Victoria Dominguez del Angel	Wiebke Toussaint
Beth Montague- Hellen	Bouwe Andela	Branc size	an	ks	Cameroe Let (CC	m			ity	of		ont	rib	uto	ors	8	Joe Teel	verververververververververververververv	rs!	Vo Yehudi	Yu-Fang Yang
Carlos Martinez	Carlos Vladimiro González Zelaya 20	Cassandra Gould van Praeg © III			Chandler Klein	24240340340340		Ferran Gonzalez Hernandez ම								Julien Colomb				11 31 (SSI (SSI))	shatitus Stephen Eglen	becautien	ecelatsbezenic	danguariso
Kim De Ruyck	Kim De Ruyck	Kirstie Whitaker	Kristijan Armeni	Krunal Rank	Lachlan Mason	Laura Action	Naomi Penfold	Natacha Chenevoy	Natalie Thuriby	Nathan Begbie	Neha Moopen	Neil Chue Hong	Nick Barlow	Rachael Ainsworth	Radka Jersakova	Raniere Silva	Reina Camacho Toro	Remil Gau	Reshama Shaikh	Richard Gilham	•• Tim Head	Tim Powell	Santone	
Laura Carter	Lenka	Liberty Hamilton		Luca Bertinetto	Lupe CaMay	Malvika Sharan	Nice 9	Nicolás Alessandroni ©	Nomi Harris	Obi Thompson Sargoni Obi Sargoni	Oliver Clark	Oliver Forrest	Oliver Hamelijnck	Risa Ueno ©	Robin Long	Rohlt Midha	Romero Silva	Rose Sisk	Rosie Higman	Rosti Readioff	Wiebke	Will Hulme	Wolmar Nyberg Akerström	oxpeter
Maria Eriksson	Mariam-ke	Mark Woodbridge	Markus Löning	Marta-MM	Martin O'Reilly	Martina G. Vilas	Oliver Strickson	Oscar Giles	Pablo Rodríguez- Sánchez	Patricia Herterich © III •• • •	Paul Dominick Baniqued ©	Paul Owolcho	Paula Andrea Martinez 00 ••	Samuel Guay	Samuel Nastase	Sangram K Sahu 9	Sarah Gibson ⊘ ■ □ ℃ ↔	Sarah Stewart	SarahAlidoost	Sedar Olmez	Yu-Fang Yang	acork25	erendo	takuover
Mateusz Kuzak	Matthew Evans	Max Joseph	Michael Grayling	Ĥ¥=E,¥ ₩ =E Miguel Rivera	Mustafa Anil Tuncel	Radia Soliman	Pedro Pinto da Silva O	PeterC-ATI	Philip Darke	Pierre Grimaud	Pooja Gadige	Pranav Mahajan	Przemek Dolata	Shankho Boron Ghosh	Sian Bladon	Sibe Smarak Panigrahi	Solon Solon	Sophia Batchelor	Sparkler ©	Srishti Nema	daniguariso	giuliaok S	glumand ©	vaenitusiyahaa V S rabbits99

Overview



- 1. What is *The Turing Way?*
- 2. What is research infrastructure?
- 3. Discussion & Writing
- 4. Share-outs and Next Steps

What is research infrastructure?

Large research teams require:

- Tools
- Practices
- Systems

In order to collaborate effectively – like Big Team Science!



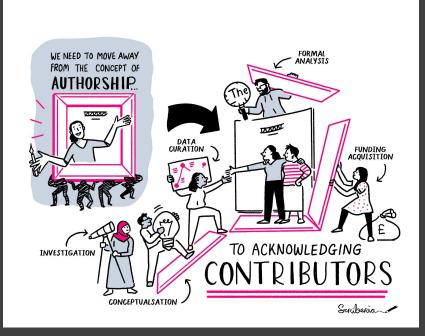
Research infrastructure: Open Source Software

Open infrastructure is usually equated with open source tools that enable technical collaboration.



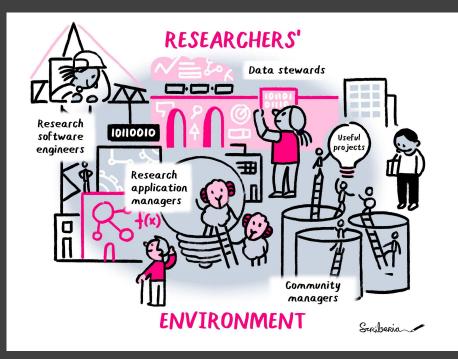
Beyond tools: Investing in human infrastructure for research

Coordinating the **people** within large research projects can be one of the biggest blockers in addressing large scale, ambitious questions.



Examples: Research Infrastructure Roles

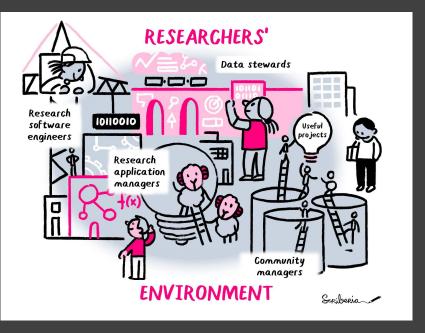
- Data Stewards
- Research Software
 Engineers
- Community Managers
- Research Application
 Managers (RAMs)
- Program Managers



Can you think of other research infrastructure roles at your institution?

Add your answer to the pad:

https://pad.sfconservancy.org/p /ttw-bts-rir-hackathon-oct22



Overview



- 1. What is *The Turing Way?*
- 2. What is research infrastructure?
- 3. Discussion & Writing
- 4. Share-outs and Next Steps

Summary

Now that we've talked about *The Turing Way* and research infrastructure roles (RIR)... now it's your turn!



Research Infrastructure Roles Chapter

0 0 ±

IE Contents

Prerequisites

Summary Motivation and Background



 \equiv

Introduction

The Turing Way

Q. Search this book...

Welcome Guide for Reproducible Research Guide for Project Design Guide for Communication Guide for Collaboration Getting Started With GitHub Maintainers and Reviewers on GitHub Managing a New Community and Team Leadershin in Data Science Research Infrastructure Roles A Community Managers Overview Data Stewards Overview Data Steward Personal Story Research Software Engineers Overview

> Research Software Engineering Personal Story Research Application Manager Overview

Remote Collaboration

Research Infrastructure Roles:

It is rare that successful collaborations occur without a person, or group of people, taking on the work of structuring participants interactions, facilitating work, and supporting the impact of the project. These people may be either volunteers or paid, depending on a project's funding, size, length, and number of oranisations involved

They're called **research infrastructure roles** because the work they perform is primarily to support the work of researchers, although research can also be a significant proportion of these roles as well. The specifics of these roles will vary but can include handling administrative work, managing data storage, stakeholder engagement, community management, communications, software engineering, events coordination, and a lot more.

People performing these types of roles come from varied backgrounds, but will often have some research experience, although not necessarily in the field they are now working in. Examples of role titles include: Community manager, project manager, research software engineer, reproducibility lead, research application manager, programme manager, administrator, or network coordinator.

Prerequisites

There are no prerequisites for this chapter.

Summary

This chapter of the Turing Way covers examples of different research infrastructure roles, their importance in promoting collaboration, ethical research, and reproducibility, and additional resources to find out more about them.

We invite anyone who works in a research infrastructure role to share their experiences as a case study.

Research Infrastructure Roles 🔺

Community Managers Overview

Data Stewards Overview

Data Steward Personal Story

Research Software Engineers Overview

Research Software Engineering Personal Story

Research Application Manager Overview

Today, we'll be contributing to this chapter in *The Turing Way!*

Live Demo

Can you think of other research infrastructure roles?

https://github.com/alan-turing -institute/the-turing-way/pull/2 750

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
- X
- X
- X
- X
- X
- X

Discussion and Writing

- You'll each be added to a break-out room for **30 minutes** for three topics related to research infrastructure roles (RIRs).
 - Room 1 Sustainability: How do you sustain/grow RIRs at your institution?
 - Room 2 Strategy: How can you introduce RIRs to your institution?
 - Room 3 Personal Experiences: What has your experience been working in/with RIRs?
- Add 1/2/3 next to your name on Zoom to indicate your interest: we aim to keep the rooms as even as possible!

Tips for success

- Use the shared pads to your advantage – documentation is everything!
 - Sustainability
 - Strategy
 - Personal Experiences
- We'll be adding your experiences here: <u>https://github.com/alan-turing-institute/the</u> <u>-turing-way/pull/2751</u>



Let's dive in!

Overview



- 1. What is *The Turing Way?*
- 2. What is research infrastructure?
- 3. Discussion & Writing
- 4. Share-outs and Next Steps

What we've accomplished



- Learned about *The Turing Way*
- Learned about Research Infrastructure Roles
- Contributed to the chapter on RIR
- Have a contribution in-progress!



🎉 Congratulations! 🎉

Live Demo

Can you think of other research infrastructure roles?

https://github.com/alan-turing -institute/the-turing-way/pull/2 750

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
- X
- X
- X
- X
- X
- X

Next steps

- Adding your work to this pull request: <u>https://github.com/alan-turing-institute/the-turing-wa</u> <u>y/pull/2751</u>
- Adding you to the contributor table: <u>https://github.com/alan-turing-institute/the-turing-wa</u> <u>y#contributors</u>
- Preview of edited RIR Chapter: <u>https://the-turing-way.netlify.app/collaboration/resear</u> <u>ch-infrastructure-roles.html</u>

Keep in touch with The Turing Way community!



Join a community call

- Collaboration Cafes
 - 1st & 3rd Wednesdays (14:00-15:00 UTC)
- Coworking Calls
 - Mondays (10:00-11:00 UTC)
- Office Hours
 - Fridays (11:00 UTC)

 ...and more! Fireside Chat, Book Dash, Community Share-outs, trainings bit.ly/turingway



Fireside Chat: Monthly informal events

> Supporting citizen and participatory science communities

> > 28 October 2022 4pm BST

bit.ly/turingway



Get Involved with The Turing Way



Develop & share



Review and update



Maintain & improve



Make it global



Share resources



Share best practices

Adina Wagner	Aditi Sherwi	Albert Hornos Vidal	Alex Bird	Alex Chan	Alex Clarke	Alexander Morley	Charlotte Watson O	Chris Holdgraf © 9	Chris Markiewicz	Christina Hitrova	Christopher Lovell	Clare Liggins	Colin Sauze	Georgia Atkinson	Georgia Tomova	Georgiana Elena	Gertjan van den Burg I 9 9	Gianni Scolaro	Graham Lee	Greg Klar	Stefan Janssen G	Stefan Verhoeven	Stephan Druskat	Stephen Egien
Ali Seyhun Saral	Andres Pierré	Andrew Stewart	Andrian Nobella	Angelo Variotta Transmissional Angelo	Anna Hadjitofi	Anna Krystalli 🗩 💡 👀 💝 🏹	Dan Hobley	Danbee Kim	Daniel Lintott	Daniel Mietchen	Daniel Nüst	Danny Garside	David Foster	Gustavo Becelli do Nacimento ©	Heidi Seibold	Hieu Hoang 9	Ian Hinder	Isil Bilgin	Ismael-KG	COMMINSM IS NET FOR ENTRYING L L JKasmire	Tarek Allan e III	Tess Gough	Thomas Sandmann ©	Tin Head © ©
Annabel Elizabeth Whipp O	Arielle Bennett-Lovell	Augustinas Sukys	Barbara Vreede	Batool	Becky Arnold	Benjamin Mummery	David Stansby	DerienFe Og	Diego Alonso Alvarez 20 00	Dimitra Blana	Eiriel Malliaraki	Elrini Zornpa	Elizabeth DuPre	Jade Pickering	James Kent	James Myatt	James Robinson		44	Jay Dev Jha	ST 55	Victoria O	Victoria Dominguez del Angel	Wiebke Toussaint
Beth Montague- Hellen Ш	Bouwe Andela	BranceLee	an	ks	Samero Le			CC	m	m		ity	of		ont	rib	uto	ors	8	Joe Fuel	ververver Se	rs l	Vo Yehudi	Yu-Fang Yang
Carlos Martinez	Carlos Vladimiro González Zelaya 🌝	Cassandra Gould van Prag © 11			Chandler Klein	The other states and the		Ferran Gonzalez Hernandez O								Julien Colomb				100105910000	shatitus Stephen Eglen	Sumera Privadarsini	cectedebezenec	danguariso
Kim De Ruyck	Kim De Ruyck	Kirstle Whitaker	Kristijan Armeni	Krunal Rank	Lachlan Mason	Laura Acion	Naomi Penfold	Natacha Chenevoy	Natalie Thuriby	Nathan Begbie	Neha Moopen	Neil Chue Hong	Nick Barlow	Rachael Ainsworth	Radka Jersakova	Raniere Silva	Reina Camacho Toro	Remi Gau	Reshama Shaikh	Richard Gilham	••	Tim Powell	Land Contraction C	SwalkoAl
Laura Carter	Linka	Liberty Hamilton	Louise Bowler	Luca Bertinetto	Lupe CaMay	Malvika Sharan	Nico 9	Nicolás Alessandroni	Nonil Harris	Obi Thompson Sargoni V	Oliver Clark	Oliver Forrest	Oliver Hamelijnck	Risa Ueno O	Robin Long	Rohit Midha	Romero Silva	Rose Sisk	Rosie Higman () () () () () () () () () () () () () (Rosti Readloff	Wiebke	Will Hulme	Wolmar Nyberg Akerström	oxpeter
Maria Erikason	Mariam-ke	Mark Woodbridge	Markus Löning	Marta-MM	Martin O'Reilly	Martina G. Vilas	Oliver Strickson	Scar Giles	Pablo Rodriguez- Sánchez	Patricia Herterich (> III + + + + + + + + + + + + + + + + +	Paul Dominick Baniqued ©	Paul Owolcho	Paula Andrea Martinez	Samuel Guay	Samuel Nastase	Sangram K Sahu 9	Sarah Gibson ♡ ■ □ へ・・ ₩ ♡ □ ■	Sarah Stewart	SarahAlidoost	Sedar Olmez	Yu-Fang Yang	acork25	•• akira-endo	takuover
Mateusz Kuzak	Matthew Evans	Max Joseph	Michael Grayling	Ĥ¥=E,¥ ₩=E Miguel Rivera	Mustafa Anil Tuncel	Radia Soliman	Pedro Pinto da Silva 3	PeterC-ATI	Philip Darke	Pierre Grimaud	Pooja Gadige	Pranav Mahajan	Przemek Dolata	Shankho Boron Ghosh	Sian Bladon	Siba Smarak Panigrahi	Solon Solon	Sophia Batchelor	Sparkler ©	Srishti Nema	daniguariso V	giuliaok S	glumand ©	yaannintosiyyihaa W abbits99 O

The Alan Turing Institute

Acknowledgements:

- The Turing Way team, Kirstie Whitaker, Malvika Sharan
- The Turing Way community, contributors & collaborators
- Book: <u>the-turing-way.netlify.com</u>
- Twitter: <u>twitter.com/turingway</u>
- Newsletter: <u>tinyletter.com/TuringWay</u>
- Slack: <u>tinyurl.com/jointuringwayslack</u>
- GitHub: github.com/alan-turing-institute/the-turing-way
- Original artwork by Scriberia: <u>https://doi.org/10.5281/zenodo.3332807</u>

