

Building diverse and inclusive RSE communities

Challenges and opportunities

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Outline

- Who are we and why are we talking about this (~3 mins)
- Why EDIA matters (~5 mins)
- Challenges and (towards) solutions (~12 mins)
- Key takeaways (~5 mins)
- Q&A (~5 mins)

**Who are we and why are
we talking to you about
EDIA?**

Why EDIA matters for RSEs

Background

Diversity within the RSE community:

Gender ¹ :	RSEs	Male	Female	Prefer to self-describe
	UK	71%	20%	3%
	USA	78%	18%	2%
	Germany	85%	13%	1%
	World	80%	16%	1%

Figures rounded to nearest percentage point. Individual countries included where respondent count > 100. The 2022 RSE survey provides insufficient data to be able to report on other aspects of diversity.

In the 2018 International RSE survey, results for the UK showed 79.8% of respondents as male, 14.3% female and 0.5% selecting the “other” option².

For comparison, from 2021 UK Census results for England and Wales, males represented 52% and females of 48% of all those in employment ³.

¹ Data from the RSE International Survey 2022: S. Hettrick et al. Sociodemography section, “RSE Survey 2022”, Version 2022-v0.9.0. DOI: <https://doi.org/10.5281/zenodo.6884882>.

² Data from the RSE International Survey 2018: O. Philippe et al., Public release for 2018 results, Version 2018-v.1.0.2. DOI: <http://doi.org/10.5281/zenodo.2585783>

³ Office for National Statistics (ONS), released 25 September 2023, ONS website, article, [Diversity in the labour market, England, and Wales: Census 2021](#)

Background: Skill and career pipelines

- Effective skill and career pipelines vital to build a more diverse community
- Enhancing technical skill development opportunities in schools and at undergraduate level (in traditionally non-computational domains)

But we can also make a difference within the existing community...

- “Domain mobility”¹ - shows precedent for moving between domains to undertake RSE work - demographics can differ between subject areas.
- Data (e.g. 2022 RSE international survey ²) shows many RSEs currently undertaking technical work in a different domain to that of their highest-level qualification.

¹ N. P. Chue Hong, J. Cohen, C. Jay, (2021). Understanding Equity, Diversity and Inclusion Challenges Within the Research Software Community. In: Paszynski, M. et al.(eds) ICCS 2021. LNCS, vol 12747. Springer, Cham. https://doi.org/10.1007/978-3-030-77980-1_30

² Data from the RSE International Survey 2022: S. Hettrick et al. Sociodemography section, “RSE Survey 2022”, Version 2022-v0.9.0. DOI: <https://doi.org/10.5281/zenodo.6884882>.

Challenges and (towards) solutions

STEP-UP Research Technical Champions scheme



STEP-UP Champions cohort 1 kick-off, October 2025 - Image credit: Katie Buntic

The STEP-UP Research Technical Champions scheme supports a group of PhD students from the STEP-UP partner institutions to help their peers to develop new technical skills and address technical challenges in their research.

R Project Sprint



R contributors, University of Warwick, August 2023

R Project Sprints bring together a diverse group from around the world for three days to make substantive contributions to base R.

Key take-aways

- EDIA matters
- We can all play a role in creating diverse, inclusive and sustainable communities
- Opportunities exist to make a difference - don't be frightened to engage!
- Community only happens when people create the spaces and folks participate

Links

- STEP-UP: <https://step-up.ac.uk>
 - STEP-UP Mentoring Scheme: <https://step-up.ac.uk/mentoring/>
 - STEP-UP Placement Scheme: <https://step-up.ac.uk/placements/>
- R Contributors: <https://contributor.r-project.org>
- rainbowR: <https://rainbowr.org>
- SSI Inclusive RSE:
 - [Guidelines for making a difference](#)
 - [Digital Health Equities seminar recording](#)

Papers

- N. P. Chue Hong, J. Cohen, C. Jay. Understanding Equity, Diversity and Inclusion Challenges Within the Research Software Community (2021). ICCS 2021, LNCS vol 12747. Springer, Cham. https://doi.org/10.1007/978-3-030-77980-1_30
- M. Tenquist et al., “Recommendations for Developing Effective Inclusivity Initiatives in Research Software Engineering” in Computing in Science & Engineering, vol. 27, no. 02, pp. 35-44, April-June 2025.
<https://doi.org/10.1109/MCSE.2025.3539076>.

Thank you

What are your questions?

JC acknowledges support for the STEP-UP project under UKRI EPSRC grant EP/Y530608/1.

EK acknowledges support for the R Project Sprint under UKRI EPSRC grant EP/V052128/1.