

Planning and Developing Research

- Review the institutional [Open Research statement](#) to understand the University's position on open research and how it may apply to your work. In computational, digital, AI-driven, or data-intensive research, consider how research objects can be made as open as possible and as closed as necessary, aligning with FAIR principles (Findable, Accessible, Interoperable, Reusable) where feasible.
- Review the [Research Outputs Policy and rights retention](#) guidance to familiarise yourself with expectations for open dissemination of emerging/computational outputs. Where the research is externally funded, ensure compliance with [funder requirements relating to open research](#). Where applicable, factor open access costs into funding applications and discuss open access options with publishers early in the process. Contact [Library Research Services](#) for guidance on open access routes and funding options.
- [Link your ORCID to Symplectic](#) to support accurate attribution of research contributions.
- Where digital or large-scale datasets are used, develop a Data Management Plan that addresses data provenance, metadata standards, storage environments, version control, processing workflows, and potential sharing in line with FAIR principles.
- Where appropriate, clarify planned software environments, programming languages, modelling frameworks, computational dependencies, and hardware requirements to support later computational reproducibility. For guidance on documenting computational environments, see the RDA CURE-FAIR recommendations and the UKRN Computational Reproducibility Primer.
- If artificial intelligence or machine learning models are involved, reflect at the planning stage on transparency, bias, explainability, training data sources, and responsible innovation principles.
- Where third-party datasets, APIs, or platform-derived data are used, document licensing conditions, reuse permissions, and terms of service.
- Where computational outputs may have dual-use, cybersecurity, or regulatory implications, seek advice through the University's [Trusted Research guidance](#), which supports safeguarding of sensitive research and international collaborations. For guidance on secure computational environments or sensitive data handling, contact Research Computing, LIDA, or Research Information Management.
- Consider how [open research values and practices](#) may inform the development of your research proposal by identifying opportunities for transparency, collaboration, and early engagement.
- If the research may generate models, algorithms, software tools, or computational frameworks with potential for wider use, clarify at the outset how these may be documented, licensed, and shared responsibly.
- Where intellectual property or commercialisation opportunities may arise (for example in relation to software, algorithms, or trained models), consult relevant institutional teams early to align openness with protection strategies.
- Where the project involves collaboration with external partners (such as industry, technology providers, data holders, or cloud service providers), clarify expectations early around data licensing, model ownership, rights over trained outputs, access to proprietary tools or infrastructure, and publication rights. Where appropriate, co-develop a Memorandum of Understanding (MoU) with partners to formalise shared expectations and provide a reference point for accountability throughout the project.

Conducting Research and Acquiring Data



- **Where appropriate, maintain version-controlled repositories** (for example through platforms such as GitHub) for scripts, models, and workflows to support transparency and traceability.
- **Document the settings, parameters, configurations, and input data** used to generate specific results to support provenance and reproducibility, storing these records in appropriate locations.
- **Document preprocessing, data cleaning, transformation, feature engineering, and model training steps** clearly and systematically.
- **Where feasible, use reproducible notebook formats or containerised environments** to support computational transparency and portability.
- **If using external libraries, machine learning frameworks, or cloud environments,** record software versions, dependencies, and system configurations.
- **Where automated data collection or scraping is used,** document collection parameters, timestamps, and contextual conditions.
- **Where data are sensitive, restricted, or commercially licensed,** implement secure storage, encryption, and controlled access practices.



Analysing and Sharing Data

- Document modelling assumptions, parameter choices, evaluation metrics, validation procedures, and performance boundaries to support interpretability.
- Where appropriate, share code repositories, computational notebooks, or container configurations to enable verification and reuse.
- Where feasible, document whether computational results have been independently verified or reproduced, for example through code review, reproducibility checks, or recognised reproducibility badges.
- If datasets cannot be shared due to licensing or privacy constraints, provide structured metadata, synthetic datasets, or detailed documentation where feasible.
- Where machine learning models are developed, document training data characteristics, model limitations, potential biases, and appropriate use contexts.
- Where ethical and legal considerations allow, deposit datasets, scripts, models, and supporting materials in suitable repositories aligned with FAIR principles. Contact [Library Research Services](#) for guidance on choosing the right institutional repository.
- Where appropriate, distinguish clearly between raw data, processed datasets, trained models, and derived outputs.



Disseminating and Publishing Research

- **Consider publishing outputs via open access** routes consistent with the Research Outputs Policy.
- **Include clear data and code availability** statements within publications, explaining access conditions and reuse permissions.
- **Where relevant, deposit software tools, scripts, models, or workflows** in appropriate repositories to enhance discoverability and long-term access.
- **Where licensing, commercialisation, or intellectual property considerations apply** (for example in relation to software tools or algorithms), coordinate dissemination decisions with institutional teams.
- **Consider how dissemination practices can** support inclusive and responsible open research, for example by encouraging bibliodiversity in publication formats and venues and promoting multilingual communication where appropriate.
- **Where appropriate, share findings through** channels accessible beyond higher education, such as blogs, videos, public talks, exhibitions, or other public-facing formats.
- **Where appropriate, acknowledge infrastructure** providers, open-source contributors, or collaborative teams in ways that reflect agreed contribution models.
- **For multi-authored outputs, include a CRediT** author statement clearly describing the roles of every author, in line with the Research Outputs Policy.

