Framework Policy for Research Data Management at Graz University of Technology

Graz University of Technology (henceforth "TU Graz") is committed to the highest standards of research excellence and to maximising the academic and societal impact of its research and teaching. TU Graz recognizes and affirms the fundamental importance of professional and responsible research data management for maintaining the quality and integrity of research.

Preamble

This framework policy is motivated by the belief that good research data management (henceforth RDM for short) cultivates:

1. Best practice for ensuring that scientific arguments are reproducible and re-usable by researchers, society and industry in the long term.
2. Responsible performance, verification, evaluation and re-use of research through adequate documentation, preservation and availability of research data according to interoperable standards.
3. Better exposure of the work of researchers at Graz University of Technology, leading to affirmation of the quality of the research process as a whole.
4. Responsible managing of research data in accordance with the FAIR (Findable, Accessible, Interoperable and Reusable) principles[1], including the safe storage of personal data or protection of intellectual property developed by scientists across TU Graz.
5. Improved practices for meeting the demands of funders and publishers with respect to research data management and sharing.

In extension of, and alignment with, existing policies on Open Access[2], Intellectual Property[3], and Research Integrity[4], TU Graz hence adopts the following Framework Policy for Research Data Management at Graz University of Technology. The policy serves as an overarching description of rights and responsibilities across TU Graz as a whole, and is to be complemented by faculty-specific implementation strategies which take account of particular disciplinary requirements. These faculty specific strategies will be based on a template defined by the TU Graz RDM Policy Working Group and the Rectorate. These processes will be guided by the Digital TU Graz project – Chancenfeld Forschung team.

This is an aspirational policy. Implementation will take some years, and will depend on the availability of resources.

[1] https://doi.org/10.1038/sdata.2016.18

[2] https://tu4u.tugraz.at/bedienstete/forschung/open-access-policy-der-tu-graz/

[3] https://tu4u.tugraz.at/bedienstete/forschung/patente-erfindungen-technology-offers/

[4] https://tu4u.tugraz.at/en/students/our-tu-graz/teaching-strategy/good-scientific-practice/

Scope

This policy for the management of research data applies to all researchers working at TU Graz. In cases when research is funded by a third party, any agreements made with that party concerning intellectual property rights, exploitation rights, access rights and the storage of research data will take precedence over the provisions of this policy. The same applies to data storage in external data repositories. In particular, TU Graz strongly values its close collaboration with industry partners, and recognises that such partnerships should not be affected by this policy.

This policy will be reviewed every three years under the supervision of the Vice Rector for Research and updated in collaboration with all stakeholders as necessary.

Rights

Intellectual property rights (IPR) are dealt with in different acts, e.g. Urheberrechtsgesetz (UrhG), Patentgesetz 1970 (PatG), Gebrauchsmustergesetz (GMG), Markenschutzgesetz 1970 or Universities Act 2002 (UG 2002) and in researchers' employment contracts with TU Graz. Handling of IPR is also specified in additional guidelines and agreements (e.g. grant or consortium agreements) of and with TU Graz. As many different legal norms as well as contracts are involved, a general statement regarding intellectual property rights (e.g. ownership) covering each case, cannot be made. In most cases, however, TU Graz is owner of the IPR generated by its employees and TU Graz has the right to choose how the data are published and shared. Researchers are encouraged to contact F&T Haus for further advice in this regard.

Roles and Responsibilities

The Digital TU Graz project – Chancenfeld Forschung team is expected to[5]:

- Conceive and implement suitable training (courses, workshops, MOOCs, one-to-one) for researchers and students on good research data management (including legal and ethical issues) (in cooperation with the library).
- Coordinate the creation and development of high-quality advice on research data management, including funder requirements (in cooperation with the rectorate, faculties and other university services).
- Conceive and implement infrastructure, facilities and support for the creation of research data management plans (in cooperation with faculties and the library).

The Library is expected to:

- Provide a certified archival service that offers at least 10 years of long-term curation for research data (in cooperation with ZID and Chancenfeld Forschung team).

The ZID is expected to:

- Provide infrastructure, resources and facilities (in compliance with the FAIR principles) for collection, storage, access, sharing and archiving of research data, both internal and external (in cooperation with the library).
- Ensure that integrity, security and if needed protection of research data is guaranteed.

[5] The Digital TU Graz project runs until December 2021. Following the successful completion, the services will be embedded within a suitable University support area.

F&T Haus is expected to

- Provide advice and support on research data management requirements of funders.
- Provide support for the creation of research data management plans.

The Rectorate is expected to:

- Be responsible for budgeting and financial planning.
- Stimulate awareness regarding RDM practices and develop a culture which incentivizes good research data management and FAIR data practices (in cooperation with faculties).
- Facilitate and oversee the implementation of TU Graz RDM policy as a framework for good research data management (in cooperation with faculties).

University support areas are expected to:

- Provide advice and support on legal and ethical issues (e.g. data protection) related to the collection, storage, access, sharing and archiving of research data (legal department, in cooperation with the library).
- Support provision of suitable advice and training for researchers and students on good research data management (in-house training, in cooperation with the library).

Faculties must develop and oversee faculty-specific implementation strategies describing the roles and responsibilities of institutes, research groups and individual researchers for the following areas:

- Collection, documentation and storage of research data during the research process.
- Ensuring that research data supporting peer-reviewed publications are appropriately documented and shared in a research data repository in accordance with the FAIR principles for at least 10 years from the date that the research results are published, unless there are valid reasons not to do so.
- Ensuring data management plans are written and updated in accordance with the RDM data regulations and procedures of funders and/or the faculty policy implementation strategy (including information about data collection, documentation, assignment of metadata, archiving, information about access to, storage of and destruction of data).
- Evaluating the efficacy of the faculty implementation strategy.
- RDM training at the appropriate-level (e.g., within faculties, institutes or doctoral schools, etc.), in line with available resources.

Graz, 11.12.2019

Annex: Definitions of terms

Data repository

Any data designated to be preserved for the long-term, whether publicly or otherwise, should be deposited into a trusted digital repository.[6] Researchers are encouraged to use repositories standard to their communities. An overview of repositories can be found at Re3data: www.re3data.org. Where there is no suitable external repository, TU Graz will provide a local infrastructure for this purpose.

Data Stewardship

Coordination of the entire research data lifecycle, aiming to ensure that the right processes are put in place and that appropriate decisions are made to make research datasets Findable, Accessible, Interoperable and Reusable (FAIR).

FAIR Data Principles

Set of guiding principles to make data Findable, Accessible, Interoperable, and Reusable. For more information, see: Wilkinson et al. 2016. "The FAIR Guiding Principles for scientific data management and stewardship." Scientific Data 3(1). http://dx.doi.org/10.1038/sdata.2016.18.

Peer-reviewed publications

Scholarly work which has undergone quality assurance via external experts and is published as a scientific article, conference paper, book or book chapter, etc.

Personal data

According to new European Data Protection Regulation personal data means "any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person."

Research

Research is defined as any creative and systematically performed work that is carried out with the goal of advancing knowledge, including gaining insights about people, technology and scientific laws, and applying this knowledge in new ways.

Researchers

Researchers are individuals who perform research activities at TU Graz. This includes members of the University as defined in Section 94 of the Universities Act 2002 (UG) (i.e., PhD students, scientific and non-scientific staff). Persons not directly affiliated with an institution, but who, for purposes of research,

[6] https://dictionary.casrai.org/Trusted_Digital_Repository

make use of or are physically present at the institution, are also included in the term. Visiting researchers or collaborators may also be expected to comply with the policy.

Research data

Research data, as the term is used in this policy, is the evidence that underpins answers to research questions, and which is necessary to validate research findings. Data can come in various forms and types, characteristic to specific disciplines of research. For example, data can be quantitative or qualitative information collected by researchers in the course of their work by experimentation, observation, modelling, interview or other methods, or information derived from existing evidence. Research data also includes elements that make the data reusable or re-workable, e.g. documentation of the research process (e.g., in lab- or notebooks), underlying software/code, or algorithms and runtime environments. Research data can be stored at different granularity and can be classified as:

- Raw or primary data: measurements, information recorded as notes, images, video footage, computer files etc. (the raw data may be impossible to store always),
- Processed data: analyses, descriptions and conclusions in the form of reports or papers, and
- Published data: information (i.e., publication and plotted data) distributed to others than those involved in data acquisition and administration.

Research data management plans

Research data management (RDM) plans are living documents that describe how research data will be managed during their life cycle. RDM plans should state what research data will be created and how, as well as outlining plans for sharing and preserving them. Any restrictions on access to research data should be noted along with mechanisms to protect unauthorised access. In the event that research data and records are to be deleted or destroyed, the RDM plans should specify the person(s) responsible for taking and carrying out that decision, the storage location of the deletion process documentation, the person(s) responsible for preserving this documentation and the basis of the decision. Ideally, RDM plans should be delivered in a machine-readable format.

Digital TU Graz project – Chancenfeld Forschung team

With its digitization policy, Graz University of Technology is creating a strategic framework for dealing with digitization and its diversity of changes. The strategic project Digital TU Graz is systematically exploring ways to harness the potential of digitisation to improve research, teaching, and administration across the university.

Within the Chancenfeld Forschung, TU Graz aims to enable FAIR data through efficient research data management, increase international visibility and re-usability of research and develop state-of-the-art disciplinary-specific and cross-disciplinary tools and services.

Chancenfeld Forschung team is an interdisciplinary team that combines competences in philosophy, sociology, and information science with computer science and life science. The team uses evidence-based and computational approaches to make research cultures more open, transparent and participatory through new practices and technologies.