National Research Data Services for Economics in Germany and the Role of the ZBW

International Conference on Economics and Business Information

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Overview:

1. The German national Landscape for RDM-Services
   - German Universities and RDM
   - Learned Societies in Economic Sciences
   - Storage of & Access to Research Data
   - Subject-specific DOI-Registration of Research Data in the Social Sciences

2. ZBW's Approach in RDM
   - Our Principles in RDM
   - Some of ZBW's Activities in RDM
     - da|ra
     - EDaWaX / ZBW journal data archive
     - SowiDataNet
     - Guidebook on research data (management)

3. Summary and Lessons learned

1) THE GERMAN NATIONAL LANDSCAPE FOR RDM SERVICES

1.1 The German national landscape for RDM

On the level of universities (non subject-specific):

- Within the last years, at least seven universities adopted policies on RD. Some also provide assistance in RDM-topics (e.g. competence centers or EU-offices).

- In addition, some implemented university-wide RD-infrastructures to support researchers in RDM:
  - LMU Munich
  - University of Bielefeld
  - University of Heidelberg
  - University of Mannheim
  - TU Berlin

- Also, the German Rectors' Conference (HRK) asks the universities to implement RD-Policies and RDM-support at university level.

HUMBOLDT-UNIVERSITÄT ZU BERLIN

Humboldt-Universität zu Berlin Research Data Management Policy

Preamble

Handling of research data responsibly is critical for confirming research results, for the advancement of science and for the dissemination of knowledge. This policy is addressed to all researchers at Humboldt-Universität zu Berlin both in their role as independent researchers, and as teachers and supervisors. Their obligation includes instructing students and doctoral candidates about handling of research data properly, as well as imparting subject-specific skills and standards.

What is research data?

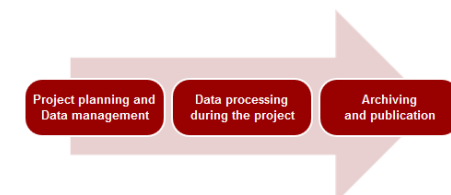UNIVERSITÄT HEIDELBERG | ZUKUNFT SEIT 1386

Contact | Deutsch

Heidelberg University > Institutions > Competence Centre for Research Data >

Competence Centre for Research Data

In accordance with the university's Research Data Policy the Competence Centre for Research Data offers scientists at Heidelberg University central services for archiving and publishing their research data. The Competence Centre is a joint facility of the university's Computing Centre and the University Library.

Our services:
Support at every stage of the research process

Project planning and Data management → Data processing during the project → Archiving and publication

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1.2 The German national landscape for RDM

On the level of learned societies:

- The learned societies for economics (*German Economic Association - VfS*) and business studies (*German Association for Business Research - VHB*) name research data management in their code of conduct.

- "Research should be transparent and comprehensible. The underlying assumptions should be clear. For empirical work, the datasets and programs used should be made available to replicate the results, if legally possible." (VfS)

- The *German Association for Business Research (VHB)* even published a detailed paper on how to document and publish research data.

VHB ▶

Themenfeld 5:
Umgang mit Daten und Dokumentation des Forschungsprozesses

Die Ergebnisse von Forschungsarbeiten sind nur intersubjektiv überprüfbar, wenn auch ein Zugang zu den Daten gewährt wird bzw. im Nachgang auch deren Überprüfbarkeit sichergestellt wird. Wie kann dieser Zugang sichergestellt werden? Für welchen Zeitraum? Wie kann mit vertraulichen Daten umgegangen werden? Wie werden die Interessen der Autor/innen gewahrt, die die Daten unter Umständen mit viel Aufwand gesammelt haben und nun auch alleine davon profitieren wollen? Wie sollte eine revisionssichere Dokumentation von Forschungsarbeiten aussehen? Welche Sachverhalte insbesondere bei empirischen Untersuchungen (z.B. Projektpläne, Publikationsprojektpläne, Wechsel von Autorenschaften, Anpassung des Rohdatensatzes durch Bereinigungen usw., inhaltliches vs. rechtliches Eigentum an Daten und Erkenntnissen, Art der Mitarbeit usw.) soll in welcher Weise dokumentiert werden, um später zur Klärung von Sachverhalten beitragen zu können? Wie sind diese Unterlagen bzw. auch die verwendeten (Roh-)Daten zu archivieren – in welchem Format, mit welchen Sicherungsinstrumenten und für welchen Zeitraum? Wie kann sichergestellt werden, dass die Arbeitsschritte des Forschers aus den ursprünglichen Daten auch nachvollzogen werden können?

*Ein notwendiges Kriterium für Wissenschaft besteht in der **Nachvollziehbarkeit** der erzielten Ergebnisse. Zeitschriften haben deshalb von je her darauf geachtet, dass der Forschungsprozess zur Erzielung der in einem Aufsatz berichteten Ergebnisse angemessen dokumentiert ist. Anders als in den Naturwissenschaften hat sich allerdings keine Kultur der Replikation von Ergebnissen herausgebildet, weshalb auch die Angemessenheit bisheriger Dokumentationen in der Regel nicht geprüft wurde. Ausgelöst durch verschiedene*

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RatSWD.
German Data Forum

On the level of research data storage & access:

Currently, the landscape subdivides in two parts:

- For large surveys and data provided by federal statistical offices almost 30 specialised research data centres exist.
- For the 'long tail' of research data generated by projects and non-university research institutes, currently almost no storing opportunities for RD are available.
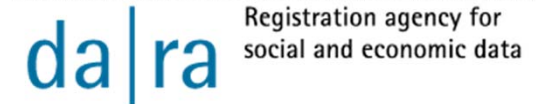
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Research Data Centers – a manifold supply of data

Today's researchers have an advanced and sustainable research infrastructure at their disposal which is the result of independent initiatives from within the scientific community. A decentralized network of almost 30 data centers provides easy and low-cost access to a wide range of research-relevant data.

All data centers are accredited by the German Data Forum according to uniform and transparent standards.

■ All ■ Social ■ Economy ■ Education ■ Health ■ Psychology ■ Qualitative ■ Other

DESTATIS FDZ

STATISTISCHE ÄMTER DER LÄNDER FORSCHUNGSDATENZENTRUM

Research Data Centre (FDZ) of the German Federal Employment Agency (BA) at the Institute for Employment Research (IAB) FDZ

Deutsche Rentenversicherung Bund

Research Data Center BiBB FDZ Federal Institute for Vocational Education and Training

IQB Institut zur Qualitätsentwicklung im Bildungswesen Forschungsdatenzentrum

SOEP

@gesis fdz ALLBUS

@gesis fdz International Survey Programs

@gesis fdz Elections

SHARE Survey of Health, Ageing and Retirement in Europe 50+ in Europe

DZA German Centre of Gerontology

Psychologie Information ZPID – Leibniz Institut

pairfam

FDZ Ruhr am RWI

1.4. The German national landscape for RDM

DOI-Registration:

- In Germany, the DOI-registration of research data is organised by subject.
- For social sciences' research data the DOI-registration agency da|ra (www.da-ra.de/en) takes over the task to mint PIDs for these resources.

- da|ra is a member of the DataCite consortium.
- Joint service of GESIS (Leibniz Institute for the Social Sciences) & ZBW.
- Currently 65 data centres and other customers.
- To date, ~433.000 DOIs have been registered by da|ra.

2) ZBW'S APPROACH IN RDM

2.1 Our principles in RDM…

Against the backdrop that ZBW is a specialist library with a national duty, our **general approach** is characterised by a few principles:

- With our projects and services, we focus on **organisations / institutions** rather than on single researchers,

- We act **in close cooperation** with the economic research,

- We orient ourselves to the **needs of the community** and seek **constant feedback** from the target group,

- We work **with** rather than (only) **for** researchers,

- We act with a **strong subject-specific** point of view, without neglecting overall developments and discussions,

- We think it us useful to have a **division of responsibilities** in RDM based on complementary skills.

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2.2 Some of ZBW's activities in RDM

- da|ra is the German DOI-registration agency for social and economic data. da|ra is part of DataCite.

- **Goals**: Enable a stable and reliable citability of research data (most often for large datasets in RDCs). Facilitate reuse and discovery of datasets.

- *Target group*: Mainly economic research data centres & OA journals.

- *Partners*: Jointly run by GESIS (social sciences) & ZBW (economics)

Some of our customers:

European Data Watch Extended

- *Goals*:
  - Development and implementation of a software to support the management of publication-related research data in economics journals (= software for a data archive; similar to Dataverse).
  - Analyses of the current state of data sharing in economic sciences.
  - Analyses on data management practises of journals in economics and business research.
  - Advise of journal editors (data policies and data archives)

- *Target group*: Editors of scholarly journals, publishing houses.

- *Partners*: German Data Forum (RatSWD), Research Data Centre (RDC-SOEP), Max Planck Institute for Competition and Innovation (MCIER)

  ➢ www.edawax.de (en) and www.journaldata.zbw.eu (en)

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SowiDataNet

- *Goals*:

  - Development of a technical infrastructure (data repository) to discover and to access institutionally created datasets (for quantitative data).

  - Constitution of a research data association for economics and the social sciences in Germany.

  - Simple and low-threshold infrastructure component to store research data and for long-term access to data.

- *Target group*: Institutional projects/research groups without personal and/or financial resources for the archiving and documentation of self-compiled datasets.

- *Partners*: DIW, GESIS, WZB, ZBW.

  ➢ www.sowidatanet.de (de)

„Guidebook on Research Data"

- *Goal*: Give information and adivse in RDM topics that are not part of universities' curricula.

- *Target group*: young academics & lecturers

- *Content* *(27 pages A4)*:
  - What are useful sources to procure data?
  - How to cite research data?
  - How to document self-compiled datasets?
  - How and where to store these datasets?

- *Partners*: ZBW, GESIS, German Data Forum

- Version 2.0 released in Spring 2015.

➤ www.auffinden-zitieren-dokumentieren.de (de)

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3) SUMMARY AND LESSONS LEARNED

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3. Summary and lessons learned

- In Germany, we observe a coexistence of activities by universities, non-university research institutes and learned societies in RDM.
- No coordinated approach yet, but many institutions are in a state of flux.
- Fragmented RD-infrastructure: Good infrastructure for relevant studies (-> RDCs), but poor support for RD created by projects and smaller institutions.
- ZBW intends to support economists in RDM, especially in areas where currently no services exist (triggered by expressed demands from the community).

(Some) lessons learned:

- For developing suitable RDM-services, it is crucial to work close with the researchers!
- Services and infrastructures must be low-threshold and must not interfere with the researcher's work.
- The benefits of the support offered must be clearly visible and tangible.

Panel discussion on data sharing at the annual meeting of the learned society 'German Economic Association' (VfS)

EDaWaX-workshop with editors of journals in economics and business studies.

Thank you for your attention!

➢ Questions?

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