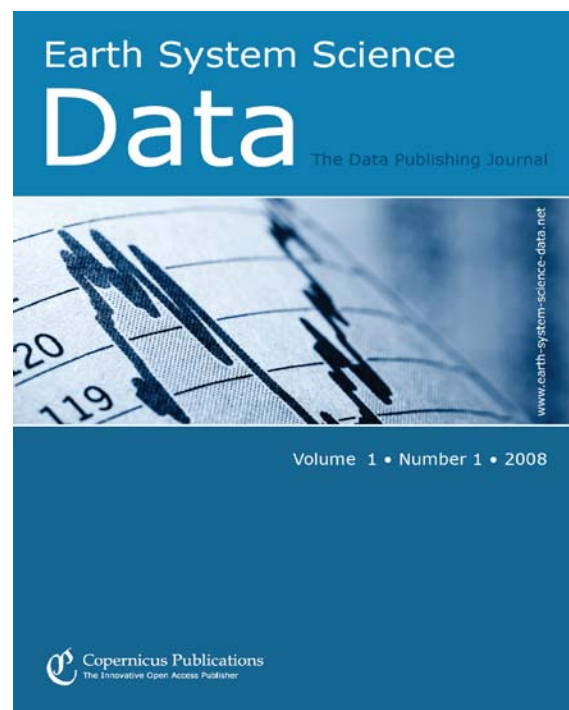


Research Data Policy of the Alliance of German Research Organisations - Implications and Implementation

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Helmholtz OA Workshop Energy, KIT, 2011-05-25, Karlsruhe



Cologne, Germany, 2009; Historical Archive drops into tube construction site



- **This is what must not happen to the building of scientific knowledge!**
- North-Rhine-Westphalia
- 10 Mio population
- **2 civil engineers for oversight of building**

On The Shoulders of Giants

- Isaac **Newton** famously remarked in a letter to his rival Robert **Hooke** dated February 5, 1676 that:

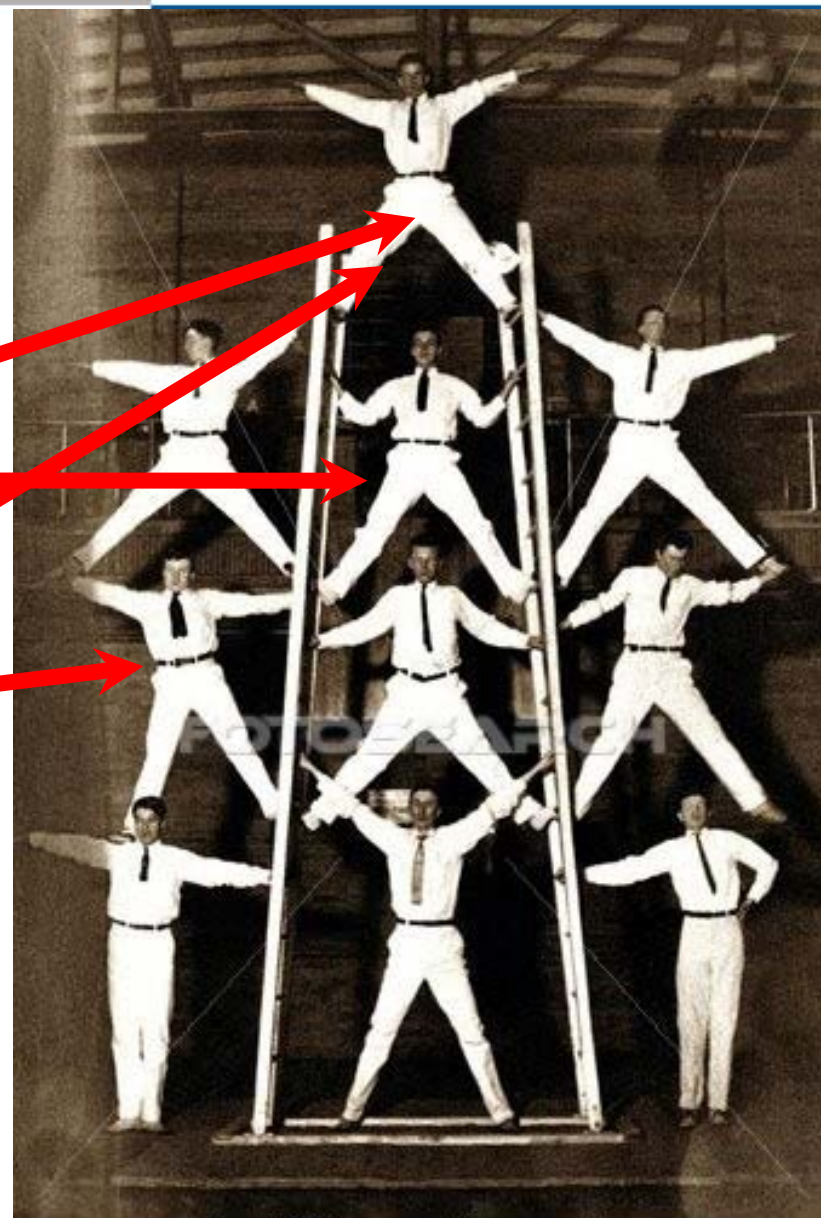
„What **Descartes** did was a good step. **You** have added much several ways, and especially in taking the colours of thin plates into philosophical consideration.

If I have seen a little further it is by standing on the shoulders of Giants.“

en.wikipedia.org/wiki/Standing_on_the_shoulders_of_giants

Giants today are ...

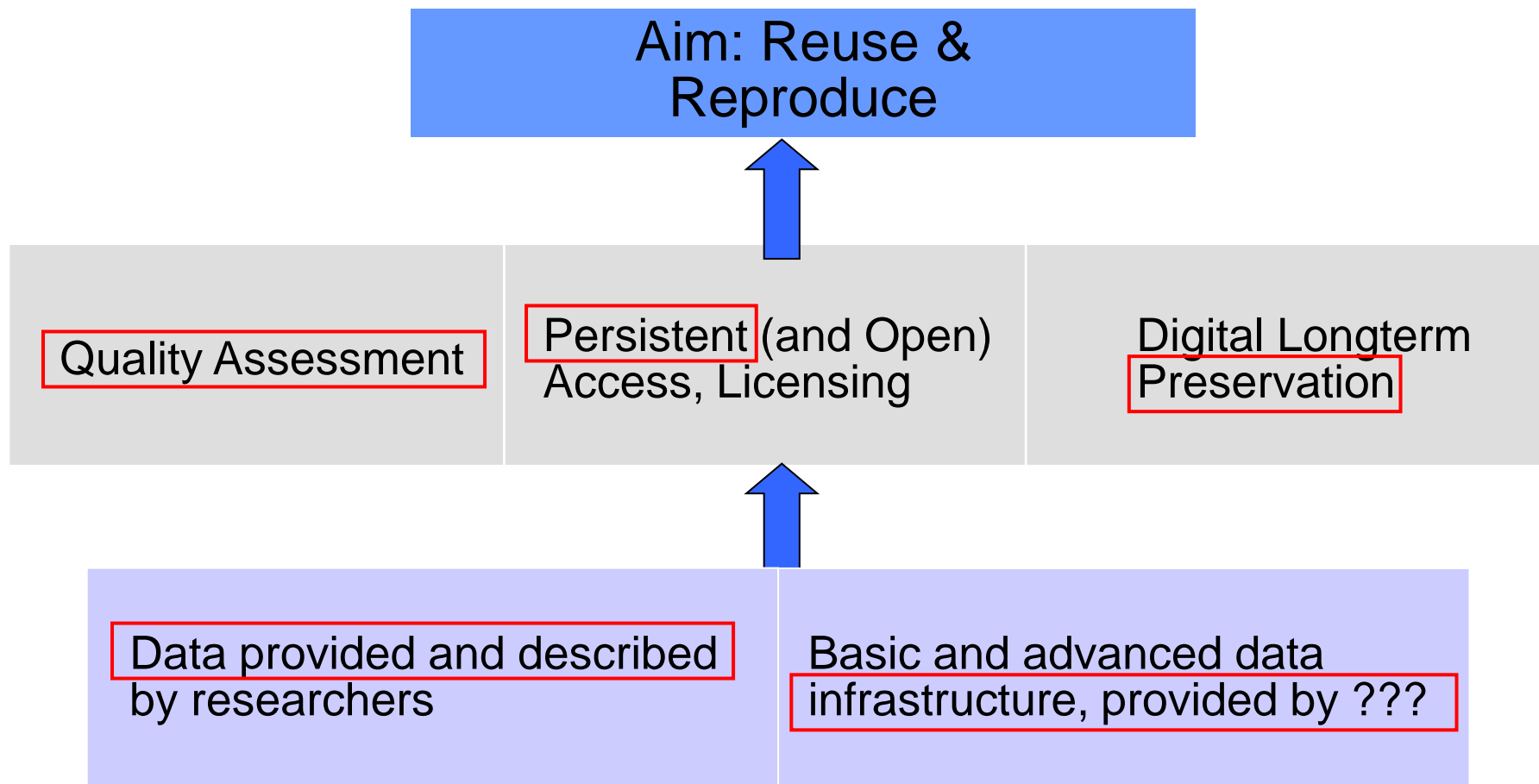
- probably more like ordinary humans ;-))
- Authors of articles
- Creators of datasets
- **May datasets be less reliable** than articles, books? Why treat them different?



bxp22772 www.fotosearch.de

ESF/EuroHORCs Vision for ERA (2008):

“... permanent access to ... quality assured research data”



Principles for the Handling of Research Data

- **adopted** by the [Alliance of German Science Organisations](#) on **24 June 2010**
- Alexander von Humboldt Foundation
- German Academy of Sciences Leopoldina
- [Deutsche Forschungsgemeinschaft](#) (DFG, German Research Foundation)
- German Academic Exchange Service (DAAD)
- [Fraunhofer](#)-Gesellschaft
- [Helmholtz](#) Association
- German [Rectors' Conference](#) (Hochschulrektorenkonferenz - HRK)
- [Leibniz](#) Association
- [Max Planck](#) Society
- Wissenschaftsrat (German Council of Science and Humanities)

Preamble

- **Quality-assured** research data
- **cornerstone of scientific knowledge**
- independent of the purpose for which they were originally obtained, can often **serve as the basis for further research.**
 - (re-use, not mainly reproduce!)
- **Preserving** research data over the long term and **making them available**
- **strategic task** to which science and the humanities, politics as well as other parts of society, must contribute.
- **objective** of supporting the **quality, productivity and competitiveness of science** and academia,
 - (keep in mind: not to build a data bureaucracy!)

Preservation and accessibility

- In accordance with important international organisations involved in funding and performing research [1],
- the Alliance supports the long-term preservation of, and the principle of open access to, data from publicly funded research.
 - This principle shall be balanced against the scientific and legal interests of researchers.
 - The protection of the personal data ... obligations to third parties ... have to be taken into account.
 - The principles of good scientific practice must also to be observed [2].

[1] „The EUROHORCs and ESF Vision on a Globally Competitive ERA and their Road Map for Actions to Help Build It“, ESF Science Policy Briefing 33, June 2008, <http://www.esf.org/publications/policy-briefings.html>; „OECD Principles and Guidelines for Access to Research Data from Public Funding“, OECD 2007.

[2] DFG resolution: Proposals for Safeguarding Good Scientific Practice, DFG 1998; http://www.dfg.de/en/research_funding/legal_conditions/good_scientific_practice/index.html.

The scientific disciplines

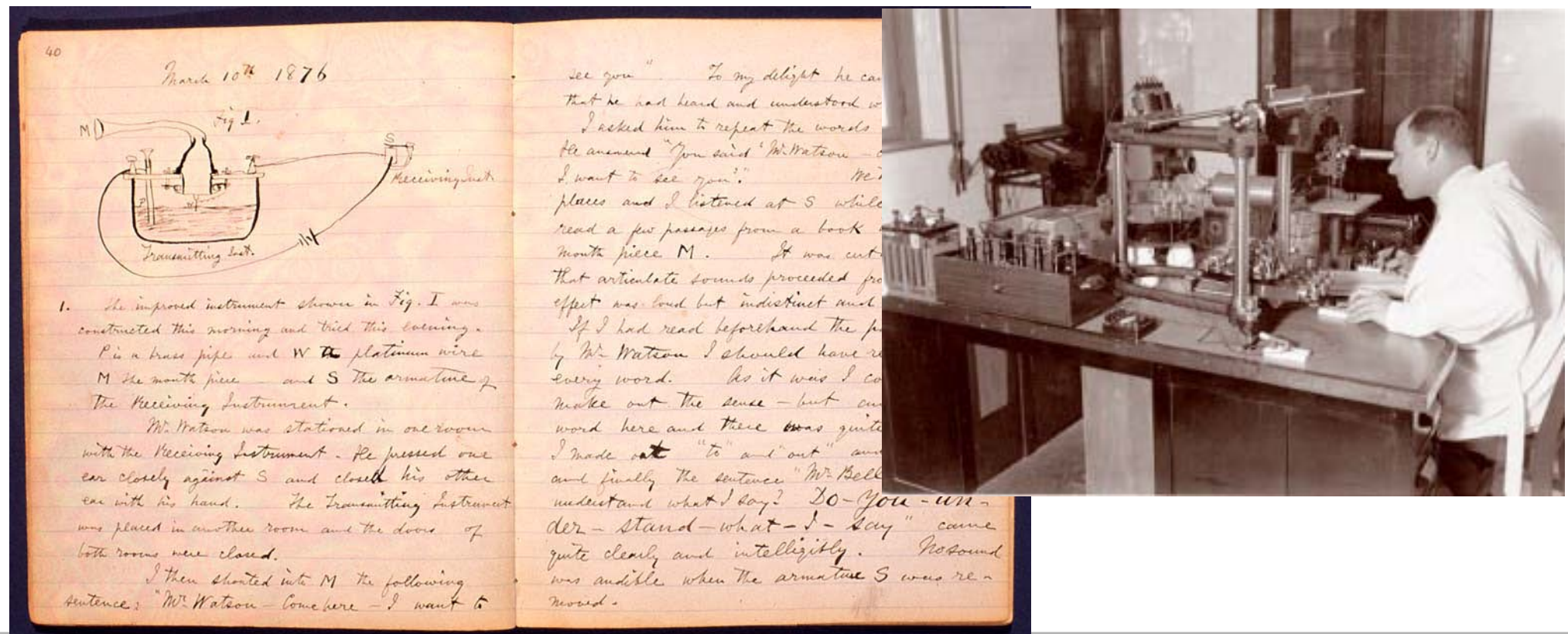
- **The ways of and conditions for access to research data**
- **must be developed separately for the individual scientific disciplines**
 - taking into account the **methods of data acquisition**,
 - the volume and **potential for integration of the data**,
 - as well as its **practical usability**.
 - the respective **life cycles and usage scenarios of the data in the specific research fields**

Scientific recognition

- The provision of research data for further use **is a service which benefits the sciences** and humanities in their entirety.
 - **not**: it is / can be considered scientific work
- The Alliance **encourages the recognition and support** of this additional costly and time-consuming effort.
 - **Which kind of recognition?**
 - Leave the details to the disciplines, research funders, **evaluation?**
 - Acknowledges **additional** cost/time => additional resources

Teaching and qualification

- For those involved in research, an **appropriate range of training and support services for professional data management** must be made available, meeting the specific requirements of the different disciplines.



Use of standards

- Proper use of research data requires that the **data are documented and provided with appropriate metadata ...**
 - This is much more essential and more difficult for data than for books...
- ... in a standardised manner. **Observing subject-specific requirements**, standards, metadata catalogues and registries are to be developed **in such a way that interdisciplinary use is also possible.**
 - Do we need to square the circle??
 - **All „grand challenges faced by society“ are multidisciplinary !!**
 - **It is a reminder for (over-)specialized data repositories!!**

Development of infrastructures

- **Sustainable research data management imposes a wide range of technical and organisational requirements.**
 - **We are not talking about yet another portal (grid, db, ...)**
- **These requirements must be defined through the cooperation of researchers and information specialists.**
 - **Again: no self-serving bureaucracies ... (and the researchers have to experience the impact of their own requirements!)**
- **Infrastructures are to be developed according to these requirements and, if possible, interoperably integrated in international and interdisciplinary networks from the start.**
 - **Don't create islands!! A danger with project-funded narrowly focused, national infrastructures**

Making this a reality is a more difficult task than it may seem. To collect, curate, preserve and make available ever-increasing amounts of scientific data, new types of infrastructures will be needed. The potential **benefits are enormous but the same is true for the costs.**

Neelie Kroes, VP European Commission

Riding the wave

How Europe can gain from the rising tide of scientific data

Final report of the High Level Expert Group on Scientific Data
A submission to the European Commission

October 2010

Thank you!