DFG
Deutsche Forschungsgemeinschaft
German Research Foundation

Conference

Traceability and securing of results as essential challenges of research in the digital age

April 8–9, 2019
Hörsaalruine, Berlin Museum of Medical History, Charitéplatz 1, 10117 Berlin

One currently pivotal global challenge for scientific research in the digital age concerns the potential contradiction between (largely) automatized processing of an ever-growing amount of data and the need for validating, verifying and securing results. This two-day conference will illustrate how these essential challenges regarding data provenance, collection, storage, processing and interpretation are tackled in a number of different disciplines such as physics, bioinformatics, materials science and the digital humanities as represented by computational linguistics. In addition to gathering state-of-the-art facts and insights from these different subjects, the conference aims at promoting exchange and reflection from a broader, interdisciplinary perspective. The focus will thereby lie on methodological issues and deliberately refrain from addressing -equally essential- ethical and legal aspects.

Scientific committee

Miriam Butt, Konstanz

Ralf Drautz, Bochum

Michael Krämer, Aachen

Olaf Wolkenhauer, Rostock

For further information please visit
http://digitalturn.dfg.de/conference

Please confirm your attendance by March 25 via https://www.aloomtms.de/digital-change/

Confirmed speakers and preliminary topics:

April 8

10:30 *Conference opening*
Peter Strohschneider (President of the DFG)

10: 45 *Traceability, Reproducibility, Replicability... What It Means for Computational Linguistics*
Nancy Ide (Vassar College)

11:45 *Towards (more) transparent Natural Language Processing technologies: How teaching others about our tools forces us to ask the right questions*
Antske Fokkens (VU Amsterdam)

14:00 *Models of Provenance*
Peter Buneman (University of Edinburgh)

15:00 *FAIR data: The European Galaxy Server*
Björn Grüning (Freiburg University)

16:30 *Can knowledge inform Machine Learning?*
Christian Bauckhage (Fraunhofer IAIS/University of Bonn)

April 9

09:00 *Robust and reliable machine learning*
Matthias Hein (University of Tübingen)

10:00 *Towards Reproducibility in Machine Learning and AI*
Kristian Kersting (TU Darmstadt)

11:30 *Traceability in materials design: A use case from molecular simulation*
Chandler Becker (National Institute of Standards and Technology)

14:00 *Automizing work flows in computational materials design*
Jörg Neugebauer (Max-Planck-Institut für Eisenforschung)

15:00 *What is a measurement record?*
Michaël-Andreas Esfeld (Lausanne University)

16:30 *Mastering complex data processing procedures: from particle detector measurements via machine learning algorithms to physics results*
Martin Erdmann (RWTH Aachen)

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