

Curriculum vitae – Prof. Dr. Gioele Barabucci

Personal information

Academic career, summary

- 11.2019 – now **Associate Professor**, Norwegian University of Science and Technology (NTNU)
- 05.2019 – 10.2019 **Managing director**, *Cologne Center for eHumanities*, University of Cologne
- 12.2013 – 05.2019 **Postdoctoral research fellow**, *Cologne Center for eHumanities (CCeH)* and *Data Center for the Humanities (DCH)*, University of Cologne
- 2016 **Marie Curie Experienced Researcher**, *DiXiT ITN*, University of Cologne
- 2013 **PhD (Doctor Europaeus) in Computer Science**, *University of Bologna*
- 2009 **Master in Computer Science**, *University of Bologna*

Research interests

- Data modeling and information architecture**; Ontologies, data formats and their semantics; Metadata and the stratification of digital information; Provenance and context; Design of data structures and its implication for algorithmic complexity; Domain-specific modeling methods
- Document changes**; comparison algorithms; versioning systems; integration of lexicons with dissimilar hierarchies; Systems for the explanation of differences..
- Research data management**; Development of pipelines for the curation of data ab ovo, in vita and post mortem; Pipelines for the (semi-)automatic integration and cleaning of raw data (from sensors, crowd-sourcing); Sustainable management of research data in the continuum between static data and living resources.
- Web technologies**; HTML, XML and X-Technologies (XPath, XSLT, XQuery); markup languages; Semantic Web; online, offline, real-time and hybrid collaborative editing systems.
- Interdisciplinary computer science**; Impact of the digitalization on the society; Ergonomy of data and its representation; Introduction of algorithmic methods in the Humanities, Law, and Social Sciences.
- Theoretical computer science and computational thinking**; algorithmic reasoning and abstractions from first principles; computer-free learning approaches (for example “paper and craft”); declarative and functional programming languages.

Education

- 2016 **Marie Curie Experienced Researcher**, *DiXiT ITN*, University of Cologne
- Research on formalization of document evolution in literary contexts: revisions, translations, genetic editing.
- 2013 **PhD (Doctor Europaeus) in Computer Science**, *University of Bologna*
Dissertation title: A universal delta model
Topic: Formalization of comparison algorithms and versioning systems
- 2009 **Master in Computer Science**, *University of Bologna*, (summa cum laude)
Thesis title: Compact syntaxes for XML Schema 1.1: a proposal and a tool
Topic: Easy syntaxes for XML Schema for use by non-programmers

Current position

- 11.2019 – now **Associate Professor**, Norwegian University of Science and Technology (NTNU)
- Set up of a research group on formal methods for the synchronization of data and knowledge over the Internet.
 - Teaching: Bachelor, Master and PhD courses, see “*Teaching experience*”.
 - Internationalization: Coordination and set-up of ERASMUS+ agreements with various universities in Europe.

Previous positions

- 05.2019 – 10.2019 **Managing director**, *Cologne Center for eHumanities*, University of Cologne
- Coordination and support of 20+ projects, 15+ employees, 30+ international partners.
 - Organization of the scientific publication and dissemination activities of the center.
 - Development of EU proposals in collaboration with academic and private partners (museums, libraries, open-source organizations).
- 12.2013 – 05.2019 **Postdoctoral research fellow**, *Cologne Center for eHumanities (CCeH)*, University of Cologne
- Research on the formalization of texts, hypertexts, multilingual and multi-script documents, “document evolution” (i.e. deltas, comparison algorithms, collaborative editing, versioning).
 - Publication of scientific articles focused on personal research themes.
 - Modeling, implementation and supervision of 10+ Digital Humanities projects, among others:
 - Cologne Sanskrit Lexicon: The largest online Sanskrit lexicon;
 - Averroes: A trilingual edition (Arabic, Hebrew, Latin) of the writings the Andalusian philosopher Ibn Rušd;
 - Capitularia: Comparison and study of the transmission of 300+ medieval law charters;
 - Magica Levantina: Reflectance transformation imaging (RTI) and encoding of fragile Syrian papyri;
 - Paläographie Online: An online Paleography course.
 - Grant proposal writing (EU- and national level).

Gioele Barabucci – Open Research Europe
Curriculum vitae

- 02.2016 – 05.2019 **Researcher and developer**, *Data Center for the Humanities (DCH)*, University of Cologne
- Modeling and implementation of a formal workflow for the sustainable long-time archival of *in-vita* research data.
 - Expert advising on the modeling of research data and the creation of media- and subject-specific research data repositories for many projects:
 - SFB-1252 Prominence in Language
 - You(r) Study (BMBF)
 - Itinera Nova (KU Leuven)
 - Evaluation of technical solutions for data management and archival.
 - Advising regarding legal aspects of research data management: Internet security, author rights, licenses.
 - Design and setup of the department-wide online research-data repository and collaboration platform for 20+ research projects, 50+ collaborators, 6+ languages (German, English, Arabic, Hebrew, Greek, Latin, etc.).
- 2013 – 2019 **Lecturer**, *HKI (Department of Media Informatics/Digital Humanities)*, University of Cologne
- Lecturer, see “*Teaching experience*”.
- 02.2013 – 11.2013 **Postdoctoral research fellow**, *Multimedia Research Resource Centre (CRR-MM)*, University of Bologna
- Project-based research on the encoding and online visualization of historical prosopographical records and maps.
- 2012 **Consultant**, *Federal Chancellery of Switzerland*, in collaboration with CIRS-FID, University of Bologna
- Official publication of legal documents using Web technologies.
 - Semantic enrichment of legal document with ontologies.
 - URI Schemas for legal documents.
- 2009 – 2013 **Researcher**, *UN/DESA (United Nations Department for Economic and Social Affairs)*, in collaboration with University of Bologna
- Definition of the schema and the ontology of Akoma Ntoso, international standard for legal documents.
 - Improvement of the interoperability of Akoma Ntoso.
 - Integration of legal data sources with linked open data knowledge bases.
- 2009 – 2013 **Researcher and developer**, *Il Mulino (academic publisher)*, in collaboration with University of Bologna
- Development of Isa: an hybrid paper and web publication system with support for state-of-the-art typography and layout capabilities.
 - Extension of Isa to support and produce E-Learning materials.
- 2009 – 2013 **Lecturer**, *University of Bologna*
- Lecturer and teaching assistant for courses in various departments, see “*Teaching experience*”.

Visiting positions

- 05.2017 – 10.2017 **Visiting research fellow**, *Center for Advanced Internet Studies (CAIS)*, Multiple universities: Bochum, Bonn, Düsseldorf, Münster
- 10.2011 – 03.2012 **Visiting PhD student**, *Open University*, UK
- 07.2006 – 04.2007 **Overseas exchange student**, *University of New South Wales (UNSW)*, Sydney, Australia

Scholarships, awards and grants

- 05.2017 – 10.2017 **Fellowship**, *Center for Advanced Internet Studies (CAIS)*, Multiple universities: Bochum, Bonn, Düsseldorf, Münster; Grimme-Institut
- 02.2015 – 01.2016 **EU Marie-Curie Experienced Researcher Scholarship**, *EU Commission*
- 10.2011 – 03.2012 **EU Marco Polo Scholarship**, *EU Commission*
- 01.2010 – 12.2012 **PhD Scholarship**, *Italian Ministry for Education, Universities and Research*
- since 2009 **Travel grants**, *ACM, DAAD and other research organizations*

Organization of scientific meetings

- 2013 – now **Founder, organizers, program chair**, *ACM DChanges (Document Changes)*, Annual sub-conference, part of the international conference ACM DocEng
- At DChanges, researchers and practitioners discuss and explore the state of the art in the field of document changes: comparison algorithms, models to describe changes, techniques to track edits, tools to understand and manage changes.
 - 5 conferences: Italy (2013), USA (2014), Switzerland (2015), Austria (2015), Canada (2018)
- 2016 **Organizer, member of the program committee**, *Workshop on Digital Scholarly Editions and Textual Criticism*, Antwerp
- 2014 **Organizer, member of the program committee**, *DiXiT Conference 2*, Cologne

Project management

- 2018-2019 **Co-Leader of working group** *Theory, The Time Machine FET Project*

Commission of trust

- 2011 – now **Member of the program committee**, *ACM SAC (Symposium on Applied Computing)*, Track: Web Technologies
- 2018 – jetzt **Reviewer**, *Conference of the European Association for DH (EADH)*
- 2018 – 2019 **Journal's editor**, *Computational Intelligence*, Wiley
Special issue "Document changes"

- 2018 **Member of the program committee**, *Workshop on Scholarly Digital Editions, Graph Data-Models and Semantic Web Technologies*, University of Lausanne
- 2017 – 2018 **Reviewer**, *Umanistica Digitale*, journal of the Italian Association of Digital Humanities (AIUCD)
- 2014 – 2015 **Reviewer**, *Balisage: The Markup Conference*
- 2012 – 2013 **Member of the editorial board**, *Semantic Web Journal*, IOS Press
Special issue “Semantic Web for the legal domain”

Professional affiliations

- 2013 – now **ACM SIGWEB**, *ACM Special Interest Group on Hypertext and the Web*
- 2016 – now **ACM**, *Association for Computing Machinery*
- 2016 – now **IEEE Computer Society**

