

#QUANTIFICATION

The Oxford English Dictionary understands #QUANTIFICATION as a terminus in the realm of logic: “the ascription of universal or particular quantity to a proposition, or, more usually, a term. In modern Logic, Mathematics, and Linguistics: the use of a quantifier to indicate the scope of a variable, etc.” as well as the “action of quantifying something; an instance of this.” *

The mixed methods projects underline #QUANTIFICATION as a crucial process in digital humanities, linking the spheres of humanities into the structures of computer science by “transforming real world observations and phenomena into a numerical structure. It is both an abstraction in the sense of reducing a particular quality for a specific operational purpose and a projection in terms of re-framing something in a new context” (ANCI). The foci in detail differ and sketch a broader meaning of #QUANTIFICATION.

One looks at the specifics of the actual ‘translation’ of qualitative parameters embodied in a #CORPUS by means of annotation “as a way of making vaguely defined theories and hypotheses concrete” (BachBeatles, see #HUMAN-IN-THE-LOOP) Another focuses at the ensuing findings and their qualifying characteristics (Handwriting). Yet other projects underline the values of a parallel analysis of quantitative corpora for a deeper understanding (Rhythmicalizer), and come full circle to see quantification “as a complement to the qualitative part, which may tackle questions not addressed (and not addressable) in the statistical approach” (BachBeatles, ArchiMediaL).

In result, #QUANTIFICATION emerges not only as a terminus but also as one of the key concepts of digital humanities and probably even more so for projects mixing methods (ArchiMediaL).

*“Quantification, n.”. in: *Oxford English Dictionary (OED)*, Third Edition, December 2007; most recently modified version published online March 2022, <https://www.oed.com/> [accessed: 25.10.2022].

Title: Tracing patterns of contact and change: Philological vs. computational approaches to the handwritings of a 18th century migrant community in Berlin

Team: Humboldt-Universität zu Berlin: Prof. Dr. Roland Meyer (Primary investigator); Aleksej Tikhonov, M.A.; Ewa Kolbik, B.A.; Dr. Robert Hammel (Consultant) – Fraunhofer IPK Berlin: Dr.-Ing. Bertram Nickolay (Primary investigator); Dr. Jan Schneider (Consultant) – MusterFabrik Berlin: Klaus Müller, M.Sc.; Dipl.-Ing. Maxim Schaubert; Luisa Esguerra, M.Sc.; Dr. Marc von der Linden (Consultant) – Archive in the “Bohemian village”, Berlin: Stefan Butt (Consultant)

Corpus: Digitized handwritten personal vitae and sermon manuscripts, 18th-early 19th c., from the Archive in the “Bohemian village”, Berlin – ca. 5000 pages

Field of Study: (Historical) philology, palaeography, Czech linguistics, language contact; digital restoration of documents; image recognition, authorship attribution, handwriting recognition

Institution: Humboldt-Universität zu Berlin, Fraunhofer IPK Berlin, MusterFabrik Berlin

Methods: High-quality document scanning (own developments of Fraunhofer IPK and MusterFabrik); Image recognition and analysis, Optical character recognition, Machine-learning, Neural networks; Linguistic analysis, historical morphology, Annotation of document images

Tools: Assistance system LiViTo (own development)

Technology: Supervised machine-learning, neural networks, Python programming, tagging, corpus linguistics