

#MODELLING

The term #MODELLING, as understood by the Oxford English Dictionary, primarily denotes the creation of representation, or description, of structure. In many cases of everyday communication, this refers to art, crafts or engineering or to abstract processes in science in which visualization and abstraction are of relevance. *

As such, the term seems to parallel #VISUALIZATION. Yet, a modelling tool is not only “a tool used for modelling or working a material” but “a program which assists with the manipulation of data for the construction of a computer model” as well. Interestingly, the term computer model is listed only as a compound of computer in “the sense ‘carried out or created by means of a computer or computers’” without further explanation or contextualization.

It seems that this definition does not do justice to the actual role of #MODELLING in computer science and digital humanities. The terminology emerged some decades ago as did many of the computer science and digital humanities terms. Still it is not clear whether the sheer complexity and importance of the phenomenon (yet) prevents a definition suitable for everyday use, or whether it is discursive as a technical term to such a degree that a hermetic discourse within computer science takes place and hinders agreement at this time.

The definitions by the mixed methods project teams sketch an overall impression of meaning that remains fully within the realms of the digital. Although only hinted at, the models seem to do in fact the practical work of bridging the gap between humanities and the digital: “The challenge (...) is to come up with modelling decisions that are computationally feasible and still faithful to the object under study” (Bach-Beatles). Beyond this information, however, the actual characteristic of such modelling process remains vague. Definitions and project descriptions hint at models positioned downstream of #QUANTIFICATION enabling different kinds of #MACHINE LEARNING. Beyond that, the information is indirect, stating “parameters of a computational model are tuned based on data (...) that have already been classified into a range of classes” for example, or that there are attention models, thus suggesting a broader range of concepts for models (Rhythmicalyzer).

In sum, the term #MODELLING describes either a very fluid concept within computer science/digital humanities or such a basic element that a precise definition seems unnecessary. It is needed, however, to foster communication during the development of digital humanities and mixed methods approaches.

* “Modelling | modeling, n.” in: *Oxford English Dictionary (OED)*, Third Edition, September 2002; most recently modified version published online March 2022, <https://www.oed.com/> [accessed 25.10.2022].

Title: Rhythmicalizer. A digital tool to identify free verse prosody (www.rhythmicalizer.net)

Team: Burkhard Meyer-Sickendiek, Timo Baumann, Hussein Hussein

Corpus: German spoken poetry from Lyrikline website (www.lyrikline.org)

Field of Study: Poetry analysis, digital humanities, supervised machine learning

Institution: Free University of Berlin, Department of Literary Studies, Berlin, Germany; University of Hamburg, Department of Informatics, Hamburg, Germany

Methods: free verse prosody, machine learning, classification of rhythmical patterns

Tools: Text-Speech Alignment, Part-of-speech tagging of written text, Wavesurfer/ Snack (speech annotation, visualization, and analysis), DyNet (neural network learning), WEKA (various ML techniques)

Technology: machine learning for classification of rhythmical patterns