

# #HUMAN-IN-THE-LOOP

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#HUMAN-IN-THE-LOOP is a neologism and not (yet) recorded in the Oxford English Dictionary. The OED, however, lists a specific meaning of loop in terms of computing as a “sequence of instructions which is executed repeatedly (usually with an operand that changes in each cycle) until some previously specified criterion is satisfied.”\* Against this background, the term suggests the intentional inclusion of human action into an automated process.

The inclusion is a crucial goal in the digital humanities (QuaDramA). Yet, the use within the mixed methods projects varies significantly. As far as they discuss it, the projects understand the term to encompass single or multiple interactions between (automated work of) algorithms and human actors, largely understood as humanities scholars or even as a general audience but not as scholars from computer science. As such, the addressed human acts outside the inner workings of computer science.

Beyond that, the projects set different foci. Some understand the said human to represent the target audience of a development such as, for example, the creation of an interface in the known relationship between client and contractor. Others perceive them as an indispensable conceptual partner of a joint endeavour in digital humanities.

In consequence, the understanding of the #HUMAN-IN-THE-LOOP oscillates primarily between three corner points: First, the (humanities) user as the target of a communication that originates in the realms and concepts of computer science (QuaDramA). Second, the processes and means to create an interface in which the looped-in actors ensure comprehension and functionality (Handwriting). Third, a communication platform-cum-monitoring mechanism between the epistemic systems of humanities and computer science aiming at hybridization of methods and concepts (DhiMu; ArchiMediaL). Beyond that, there is an additional corner point that touches the meaning of #HUMAN-IN-THE-LOOP: the human as a “means to generate the data base needed for the computer to learn” (ArchiMediaL), as the starting point of the loop(s).

The cloud of attributed meanings shows the neologism #HUMAN-IN-THE-LOOP as a crucial tool for negotiating the role of humans/humanities for digital humanities and/or the intersection of the fields. It will be interesting to see which components of this field of meaning remain permanently and whether new, more specific or general terminology will ultimately develop for some areas. Thus, the term can serve as an indicator of the development of interpretative powers within digital humanities.

\* “loop, n.1.” in: *Oxford English Dictionary (OED)*, first published 1903; most recently modified version published online March 2022 with draft additions from 1997 and 2018, <https://www.oed.com/> [accessed: 20.05.2022].

**Title:** Dhimmis and Muslims – Analyzing Multi-Religious Spaces in the Medieval Muslim World

**Team:** Max Franke, Steffen Koch (Stuttgart); Ralph Barczok, Dorothea Weltecke (Frankfurt)

**Corpus:** Research literature, medieval sources in various languages (Latin, Syriac, Arabic, Armenian etc.)

**Field of Study:** Medieval History, Oriental Studies, Information Visualization, Visual Analytics, Digital Humanities

**Institution:** Institut für Visualisierung und Interaktive Systeme (VIS) (University of Stuttgart), Department of History (Goethe University Frankfurt)

**Methods:** Historical text criticism, visualization and computer graphics research

**Tools:** Web-based data entry interfaces, web-based multiple-coordinated-views visualization of different aspects of the data

**Technology:** Python, JavaScript/TypeScript, D3.js, relational databases (PostgreSQL, MySQL)