# Artificial Intelligence for Language: Text – Structures – Humans

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**Abstract**

Recent advances in Artificial Intelligence, particularly in the development and widespread adoption of Large Language Models (LLMs), have fundamentally transformed the role of text in research. Text is no longer merely an object of analysis or a medium of scholarly communication but increasingly functions as a central interface for knowledge production, data processing, and human–machine interaction. This contribution conceptualizes this shift through three interrelated perspectives. We would like to call these concepts *textification*, *structurification*, and *humanification*.

From the perspective of textification, text emerges as a method rather than a representation. AI-driven systems transform heterogeneous data, computational processes, and research infrastructures into language-mediated workflows, enabling researchers to access, control, and interpret complex systems through natural language. Text thus becomes both the entry point to and the result of data-centric research practices.

Structurification addresses the dynamic relationship between structured and unstructured data in text-based research. Rather than assuming a strict dichotomy, this contribution argues that textual structures are layered, context-dependent, and continually negotiated through disciplinary conventions and technological affordances. AI intensifies these processes by automatically inferring, generating, and reconfiguring structures, thereby reshaping how researchers explore, interpret, and curate textual data.

Humanification foregrounds a humanities-centered perspective on AI-powered research environments. It emphasizes that text-based AI systems must remain interpretable, ethically grounded, and embedded in cultural and historical contexts. Text serves as a bridge between human meaning-making and machine processing, ensuring that technological innovation supports critical reflection and responsible research practices.

These conceptual perspectives are exemplified by current developments at the Leibniz-Institute for the German Language (IDS) in Mannheim, Germany. The IDS is a publicly funded, non-university research institute dedicated to the empirical and theoretical study of the German language. As a central scientific institution for linguistics in Germany, it conducts research on language structure, usage, variation, and change, and develops sustainable research infrastructures for text- and data-driven linguistic analysis.

Positioned at the interface of Artificial Intelligence and humanities-based, text-centered research, the IDS actively advances methodological innovation while maintaining strong disciplinary foundations. With the introduction of a new funding line, to be initialized in autumn 2026, the institute expands its institutional and strategic framework to further develop AI approaches for the humanities and for text-based research in particular. This initiative aims to strengthen the sustainable and responsible integration of AI technologies into linguistic research, grounded in scholarly standards, interpretability, and human-centered research values.

Taken together, we argue that AI does not merely process text; rather, text structures how humans understand, interact with, and shape Artificial Intelligence in contemporary research contexts.

*Keywords:* Artificial Intelligence; Text-Based Research; Textification; Structurification; Humanification; Digital Humanities; Research Infrastructures