

Multimodal Digital Humanities

Title: Multimodal Digital Humanities. Grounding digital research methods in multimodal linguistics and semiotics.

Keywords: digital humanities, digital editions, multimodality, cultural heritage, digital archives, image corpora, visualisation, museum studies

This monograph brings together multimodality research and digital humanities in an in-depth investigation of the overlapping topics and applications of two rapidly-expanding research fields. It provides a thorough overview of approaches in the digital humanities that move beyond the traditional focus on language and written text, and investigates their growing relevance and methodological potential. In doing so, it takes stock of developments such as image corpora, computer vision methods, virtual reconstructions, interactive visualisations, and other aspects that promise to transform the digital humanities from a field that used to be anchored in computer linguistics, into a much broader repertoire of computational and software-based methods and applications.

The multimodal digital humanities cater to the needs of contemporary media studies, art history, digital archaeology, metropolitan and design studies, digital publication and editing, and many other fields where the inclusion of visual media, VR reconstructions, viewing modes, and interactive contributions can be relevant. The book argues that by becoming multimodal, the digital humanities are transformed into a broader and more inclusive set of practices that promise to transcend disciplinary boundaries, and extend access and diversity of digital culture to new contexts and user groups.

In the second part of the book, an analysis framework is proposed that covers many aspects of digital humanities projects, including design, curation, standards and best practices, with the aim of strengthening the foundations and methodology of the young field, and with practical applications in the specification and evaluation of projects. The framework is then applied to a corpus of 25 projects, covering areas such as digital editions, online exhibitions, interactive visualisations, urban studies projects, and digital archives. The framework can be gainfully applied during the planning process of new projects, or in the evaluation of existing websites and established formats.

This monograph presents and combines innovative approaches in linguistics, semiotics, media studies, digital humanities, and data science. It considers a largely unknown side of the digital humanities, as a field of methodological experimentation and innovation whose potential impact, theoretical innovation, and practical benefits are still not fully realised.

Chapter I: Multimodality

This chapter provides an introduction into multimodality research and gives an overview of influential theories and methods that are relevant for the following chapters. A number of approaches and terminology is introduced that will be applied in Ch. VI for the construction of the analysis framework, for example the concepts of semiotic and perceptual modes (I.4), of intermodal relations (I.6), and of communicative functions (I.7). A specific focus is on methods that are suitable for software-based annotation, and analytic tools that have already been applied in digital humanities projects, such as the “Genre and Multimodality” model (I.8).

Chapter II: Digital humanities

This chapter introduces the digital humanities, outlines definitions of the field and its methodological scope. It acquaints the reader with a number of contentious issues, such as claims concerning who may call themselves digital humanist, questions of ‘building’ and coding vs. theorizing, and the missing theory of the digital humanities. Further discussions focus on topics that are relevant for later chapters, such as the concept of distant reading, the semiotic perspective on computational methods of interpretation, and the use of algorithms (e.g. for pattern search or for automatic annotation) as a basis for higher-level interpretation processes.

Chapter III: Moving beyond language in the digital humanities

This chapter focuses on multimodal research in the digital humanities. Starting with an overview of initiatives and innovations that go beyond the traditional focus on written text, it proceeds to highlight the role of program code as a foundational mode that underlies all mediated presentations in the digital age. The chapter investigates the broken promises of hypertext, the neglected role of media software, the concept of ‘meta-medium’, and the role of embodied experience for simulations and virtual reconstructions. The technologies and design principles of visualisations, and their importance for the multimodal digital humanities, are discussed in some detail.

Chapter IV: Integrating multimodality with the digital humanities

This chapter asks how multimodality research can be integrated with the digital humanities regarding topics, methods, and research questions. It investigates the challenges that multimodal artefacts, their digitization, presentation and analysis present for the digital humanities, and proposes further steps for combining the two fields. A specific focus is on the technical level of multimodal text analysis, and technologies and methods of annotation for multimodal projects.

Chapter V: Digital editions and multimodal corpora

This chapter singles out two developments in the digital humanities that are of specific interest from the perspective of multimodality research. Digital editions have been called the ‘bread-and-butter’ work of digital humanists; they often include facsimile pages, images, and source code, and feature synoptic viewing modes. Due to the complex combinations of various semiotic modes, and the varying possibilities regarding design and navigation, digital editions are of theoretical interest for multimodal research. Similarly, the increasing role of image, gesture, and multimodal corpora has introduced a range of new perspectives and possible applications.

Chapter VI: The Multimodal Digital Humanities Framework

Drawing on discussions and results from previous chapters, a framework for the analysis of projects in the digital humanities is proposed, and explained in detail. The *Multimodal Digital Humanities Framework* is tailored to analysis of the websites that are often the primary result of a project, such as digital editions, online exhibitions, or digital repositories. It includes the four dimensions ‘Curation and digitization’, ‘Implementation and analysis’, ‘Presentation and interaction’, and ‘Social aspects’, and is organised according to categories such as research focus and goals, parameters of digitisation, transcription and annotation, quantitative and qualitative methods of analysis, navigation and storytelling, viewing modes and interactive aspects, community involvement, licensing, social awareness and impact-related questions. For each of these categories, a number of variables with specific options of choice is proposed. The framework offers solutions for various practical applications, such as the comparison of two or more projects, the specification of a project in the planning phase, or the evaluation of a finished project against established standards.

Chapter VII: Corpus analysis

In this chapter, the framework is applied to the analysis of a corpus comprised of 25 websites, belonging to different categories of digital humanities projects: digital editions, digital exhibitions, interactive visualisations, urban studies projects, and digital archives and repositories. Five projects from each of these categories are presented and explained in detail. The analysis highlights layout choices, navigation and storytelling options, and patterns in the combination of semiotic modes that characterize the various project types, providing a closer understanding for many technical features and details of design that is of practical relevance for the digital humanities. The chapter gives a good overview of different kinds of projects and introduces diverse solutions, highlighting the creativity and individual artistic vision of the project leaders, content producers, programmers, interaction designers, and other project members. The analysis gives an impression of the range, diversity and innovative potential of current digital humanities activities, at the same time demonstrating the applicability and relevance of multimodality research in relation to the digital humanities.