DH Benelux 2024

Panel:

DH Research with Audio Data: Challenges and Opportunities for Breaking Silos

Sound is a valuable and ubiquitous resource for understanding culture and society—from music to radio to audiovisual media—but often an understudied one, including in the digital humanities. Indeed, text still remains the "lingua franca" of the digital humanities (see McPherson 2009; Arnold & Tilton 2022). For this reason, many DH approaches to audio data have focused primarily on transforming sound into text through, for example, automated speech recognition (ASR) and applying text-based methodologies. However, by understanding sound primarily as a source of text, other aspects of aural/oral/sonic/acoustic sources and practices may be lost. This panel investigates DH methodologies that attend to audio data not merely as mediated texts, but that rather seek to engage the particularities and affordances of sound as a source of knowledge.

From audio fingerprinting to music information retrieval technologies to heritage acoustics, a range of different techniques have been explored in recent DH research in the Benelux. Recent DH projects in the region have taken audio data from a diverse array of sources including historical media archives, radio and podcasts, and the acoustics of built environments. The participants in this panel will introduce recent Benelux-based projects that address some of the challenges posed by audio data (whether technical, practical, or methodological in nature), as well as the potential for such projects to, for instance, advance new methods or enable improved search of archival audio. It will ask: *How* can we approach audio data as a resource for humanistic studies? *What* kinds of computational tools and digital research infrastructures can help humanities researchers navigate audio collections? And *why* should we highlight audio data specifically in the digital humanities sphere: in other words, what new kinds of humanistic knowledge can audio data potentially yield?

The panel will conclude with a 'roundtable' discussion with all participants about new directions and possibilities for the integration of audio data in DH research infrastructures. Interactive elements will include the presentation of currently developing digital tools to navigate online collections and eliciting audience feedback as potential users of these tools.

Carolyn Birdsall (University of Amsterdam), will serve as the panel moderator. She will start by offering a short introduction to the panel theme, and its key concerns and questions, and will introduce the speakers and moderate the discussion.

Emily Hansell Clark (University of Amsterdam) will discuss a pilot study she conducted that tested different music information retrieval (MIR) technologies on a collection of digitized audiovisual newsreels from the mid-twentieth century. The study aimed to analyze how musical orchestration shaped narratives in the Dutch news, particularly about activities in the Dutch colonies. One significant outcome of the study was the application of technologies such as audio fingerprinting that have been developed primarily for born-digital data (e.g. contemporary news clips), to a collection of digitized historical audiovisual materials. Further, this study, as well as Clark's broader research in this area, asks: How can computational technologies and methods come together productively with critical, humanities-driven research questions, and what kinds of collaborations and conversations between technologists and humanists does this require?

Loren Verreyen (FWO - University of Antwerp) will reflect on the new opportunities that DH bring to studying audio-based media such as radio and podcasts. In previous research, Loren has examined how the computational analysis of textual metadata can shed new light on previously understudied radio networks. The computational exploration of such digitized archives is especially valuable for radio networks that preserved only a limited number of radio broadcasts as actual audio recordings, such as the *BBC Third Programme* (1946 – 1967). In her current PhD research, Loren has shifted her focus to podcasts. Applying computational methods such as automated speech recognition and modelling techniques to an extensive dataset of true crime podcasts, Loren will assess whether true crime makes heavier use of fictionality-signalling devices than other non-fiction genres, despite its focus on factuality. A comparative approach is adopted, contrasting true crime podcasts with crime fiction novels and other (e.g., journalistic) podcast genres. Loren will reflect on the challenge within the Digital Humanities regarding the analysis of audio-visual data, which remains elusive, partly due to the field's emphasis on textual analysis, and how this persisting centrality of text is reflected in her own research.

Marten Düring (C2DH, University of Luxembourg) is part of the project "impresso – Media Monitoring of the Past" which is working to compile an unprecedented corpus of European historical newspaper and radio archives since September 2023. The project uses machine learning techniques to semantically enrich and represent newspaper and radio sources such as transcripts, manuscripts or radio programmes and develops interfaces for exploratory and computational analysis and comparison across media, time, languages, and national borders. This second impresso project is currently obtaining data from 20 partners from 8 countries. His presentation will introduce the project and its interdisciplinary setup between Natural Language Processing, History and Design, report from first experiments and lessons learned from building a transnational and transmedia corpus and conclude with an outlook of the forthcoming impresso data lab, a new environment which offers computational access to impresso's data using interactive notebooks.