



UMEÅ UNIVERSITET

SOUND OUT OF TIME

Signal Archaeology of Swedish Public Service Radio 1980–1999

Johan Malmstedt

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Fakultetsopponent: Professor, Golo Föllmer,

Department of Media, Music, and Speech Studies, Martin-Luther-Universität Halle-Wittenberg, Tyskland

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Johan Malmstedt

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Abstract

This dissertation provides a novel analysis of Swedish radio broadcasting by applying digital signal processing techniques to archived audio from 1980 to 1999—a critical era marked by the shift from a monopolistic public service to commercial competition. By directly examining recorded radio sounds, the study reveals the auditory consequences of this transition, offering new insights beyond traditional, text-focused media analyses. Utilizing the extensive Swedish broadcasting archives, the research employs computational methods to dissect radio soundscapes, enriching and challenging prevailing narratives in media and communication studies. The analysis thus expands our understanding of audio as historical data.

Introducing a methodological approach termed 'signal archaeology,' the dissertation merges principles from media archaeology with cultural analytics, treating audio data as historical sources detached from strict temporal constraints. Through detailed analyses of themes such as silence, diversity, programming, and dynamic range, the research demonstrates how radio aesthetics evolved, driven by concepts like entropy from information theory, which informed notions of sonic quality and diversity. However, as demonstrated, while the overall variety of sounds increased significantly, these changes are more readily observable through frequency-based analysis than through examining their distribution over time. This indicates that variation impacted the overall sonic profile of radio more than its temporal flow. By focusing on empirical audio data, the research encourages a reevaluation of the sonic heritage of Swedish radio and inspires further methodological debate in media and cultural studies. Ultimately, the findings indicate that while technical innovations and organizational restructuring have shaped Swedish radio along expected historical lines, its sonic patterns also evolve non-linearly – foreshadowing future media trends in ways that both align with and diverge from conventional trajectories

Keywords

Media and Communication Studies, Digital Humanities, Radio History, Audio Analysis, Sound Studies, Signal Archeology.

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