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# Accessible Radio

Archive, accessibility and materiality in the  
youth radio programme *P4 i P1*





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*For Ava and Johan*

## Transcription glossary

Throughout the dissertation, quotes from *P4 i P1* are transcribed using symbols from conversation analysis. I follow conventions in *Conversation Analysis* (Hutchby & Wooffitt, 2008), which were developed by Gail Jefferson:

- (0.5) A number in parenthesis indicates a pause in talk in tenths of a second.
- (.) A dot enclosed in a parenthesis indicates a very brief pause in talk.
- [ ] Square brackets between adjacent lines of concurring speech indicate the onset and end of a spate of overlapping talk.
- .hh A dot before 'h' indicates an in-breath. The more h's, the longer the in-breath.
- hh An 'h' indicates an out-breath. The more h's, the longer the out-breath.
- (( )) A description in double parenthesis indicates a non-verbal activity or my own comments on context such as music played, etc.
- :
- Colon indicates the speaker is stretching the preceding letter. The more colons the greater the stretching's extent.
- Under Underlined text indicates speaker emphasis.
- CAPITALS Words in capitals indicate that this section of speech is noticeably louder than that surrounding it.
- Degree signs indicate that this section of speech is noticeably lower than that surrounding it.
- > < 'More than' and 'less than' symbols indicate that the section of speech they surround is noticeably slower or faster than that surrounding it.

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## Introduction

*P4 pop is full of what one could call present-day history about what you today think, feel and discuss. If a history professor, for instance, in the year 2077 was writing a dissertation about what the youth thought a hundred years ago and took this P4 from the first of May, 1977 from its dusty hideaway, then he would hear discussions and opinions about babysitting, contraception, scary movies and much, much more.*

01-05-1977

Saying these words, P4's host Karsten Sommer, at this early point in 1977, perfectly understood the potential and historical value of *P4 i P1* as a listener-oriented youth radio programme, its encapsulation of the present-day history of the youth in the 1970s, which would continue into the 1980s and 1990s. Although we did not wait until 2077 to remove the cassettes and tape reels of *P4 i P1* from their dusty hideaway and I cannot claim to be male or a professor of history, his remark struck me as eerily prescient as I heard it through my headphones in 2011 in preparation for this dissertation about youth radio.

This PhD dissertation is made up of three articles, as well as a summary that describes the project's overall concerns and context and the theory and method applied in the dissertation articles. The dissertation summary, or as it is called in Danish, 'sammenfattende redegørelse', is structured according to the three central themes that emerged in my studies of *P4 i P1*: the archive, accessibility and materiality of radio. Although there is some unavoidable repetition because these discussions also take place within the individual articles, the summary approaches these questions more universally, from the perspective of the project as a whole. The themes were chosen for their relevance to all of the dissertation's articles, allowing me to introduce the theory and methodology of these individual studies. However,

focusing on the archive, accessibility and materiality of radio is also a way of showing how the articles correspond within the overall project. In this way, I think of the dissertation summary as a look into the dissertation's 'engine room'; the central parts of the dissertation are seen working together, and it also shows some of the grittier details of the process of putting such a dissertation together and making it work.

In what follows, I will introduce the project as it appeared from my initial application for a PhD to its final format, providing an overview of the process through which I figured out what to study and how to go about it. Because the main purpose of the summary is to construct an argument regarding the overall issues of the project, as well as the theory and method applied and the results achieved, as opposed to reiterating the studies performed in the articles, I will only briefly present the dissertation's three articles in order to place them in the project's context.

In 2007, of the eight available PhD scholarships in the LARM Audio Research Archive project, one position, under the heading 'B&U', referred to the Danish Broadcasting Corporation (DR)'s Børne- og Ungdomsafdeling (the Department for Children and Youth). As an ambitious infrastructure project, LARM allowed for the possibility of gaining unprecedented access to a digital archive containing major parts of the history of public service radio in Denmark. In my response to that posting, the starting point for this PhD dissertation, I sought to take advantage of this possibility as fully as possible, and throughout, I have been influenced by the 'new logic' of the digital radio archive.

This dissertation, however, is not my first experience in working with radio from the B&U Department. My master's thesis, which was published in 2008, considered the public sphere and resistance in the youth radio programme *P4 i P1* (M. C. B. Abildgaard, 2008) based on a small sample of eight programmes from 1973, 1989 and 1996. One of the findings that arose from working with material from the B&U Department at that time was that there was a clear mind-set or ideology behind the department and its programming in the

1970s, which is outlined in several internal documents and memoirs. However, although youth radio programmes produced in the B&U Department, such as *P4 i P1*, changed fundamentally over time, I uncovered no examples of such written manifestos describing the approach of the 1980s and 1990s and struggled to provide an accurate description of the mind-set behind the change in programming.

Thus, in my original plan for this project, two attractions drove me: one was the exceptional possibility of working with the large amounts of digitalized radio archival material afforded by participating in LARM, another was the questions that arose while working on my master's thesis about the development of the B&U Department and its productions. *P4 i P1* was a popular and innovative example of B&U's productions. It introduced several segments<sup>1</sup> that still exist as radio programmes today, and the programme itself was on the air for an impressive 24 years. I selected the youth programme as the focal point for an examination of developments in the B&U Department's radio productions, which would encompass the 24 years *P4 i P1* existed. A second part of the project would be to develop the currently lacking institutional history of the B&U Department. Comparisons between these two parts could then potentially provide interesting insights into the connections between DR's productions and its institutional strategies.

One of the earliest decisions to be made when I began working on the project was what material from *P4 i P1* to digitalize from DR's radio archive. The project was oriented toward studying the overall development of the programme, and it would therefore have been incompatible with this goal to emphasize any part of the programme or any specific period of time. I therefore designed a representative sample that encompassed the entire period *P4 i P1* was

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<sup>1</sup> Throughout the dissertation, I refer to *P4 i P1* as a whole as a 'programme', while any of its sub-parts, such as *P4 pop*, *Tværs* and *Det elektriske barometer*, are referred to as 'segments' or 'programme segments'. Although many of these segments, in reality, held the status of individual programmes within *P4 i P1*, especially the hour-long *Det elektriske barometer*, I draw this terminological line to avoid confusion when attending to the two levels (programme and segment) at the same time.

on air. Two programmes from every year were digitalized because I estimated that I could feasibly orient myself with and process this amount of material within the project's timeframe. I will later discuss to what degree this sample, designed for the original PhD plan, has been suitable for the dissertation as my work on and approach to *P4 i P1* progressed.

Although, in broad strokes, this dissertation could be termed an examination of *P4 i P1*'s development, it is very different from the initial project description. As I describe in detail in the theme about the archive, part of this change relates to external factors, such as discovering that there were few or no sources that could inform the central questions of the institutional part of the study. The rest of the process can be ascribed to my own evolving understanding of the content and potential themes in the material from the *P4 i P1*-programmes. Some initial questions turned out to be less interesting than I had imagined, and new possible questions emerged.

As a youth programme, *P4 i P1* consisted of a wide range of radio genres. Conceptualized as a 'whole evening for the youth', the programme was three hours long at minimum. During those hours, music, radio dramas, interviews with live studio guests, features, hit parades, quizzes, reportage and news segments were all part of the overall programme. Most of these programme segments were no longer than fifteen minutes, which in the early years was a significant contrast to the customarily hour-long programmes broadcast on DR's radio. Despite its broad range of genres, a key commonality within all segments in *P4 i P1* was an interest in including the listener in the production and discussion of the programme. *P4 i P1* therefore experimented with a range of formats that included an element of accessibility for the listener. The most enduring and popular of these experiments were three listener-oriented segments: *P4 pop*, *Tværs* and *Det elektriske barometer (DEB)*. Each relied on separate communication technology to elicit contact with and contributions from listeners.

In a radio context, the most traditional approach was *Tværs*'s use of call-ins. Listeners would call the studio during the show

on Sunday evening and get in contact with an employee who acted as a gatekeeper. Some listeners would eventually get to talk to one of the counsellors on *Tværs*<sup>2</sup>. For confidentiality reasons, these conversations were never live; they were taped and one or two would be played in the segment during the following week. There were exceptions to this; a segment could be dedicated to conversations with the same person over a period of time, and the conversations might be years older in that instance. Alternately, an older conversation might be played because it was relevant to the overall topic of a given programme.

*P4 pop* was, like *Tværs*, a part of *P4 i P1* from its first programme. Unlike *Tværs*, however, its format was more experimental. Its initial concept was as a music request programme, in which listeners could leave an on-air message in which they requested a song. The messages came from an automatic telephone tape recorder (ATTR) that was connected to a telephone, and listeners could call the ATTR day or night any day of the week.

The last of the three central segments on *P4 i P1* was not introduced until 1986. *Det elektriske barometer* was a hit parade of ten songs on which the listeners could vote via letters for what music to keep. The songs were then placed on the list according to popularity. The letters, or parts of them, were then read aloud on the programme segment by its host, who would take great care to emphasize the mood of the writing, often interweaving it with songs appropriate for the style or topic.

As core elements of *P4 i P1*, these three segments were conceptually tied to the programme's ideology and proved to be permanent parts of *P4 i P1* during its lifetime on the air. I therefore decided to structure the project as an exploration of the development of listener involvement in these segments and the 'present-day history' this involvement represents, as Karsten Sommer recognized at such an early date. The dissertation's three articles are each dedicated to one segment, as well as to the technologies that played central roles in them: the

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<sup>2</sup>The counsellors were originally a social worker and a career counsellor, but in later years, a psychologist worked on the programme as a substitute for the main host.

telephone, the automatic telephone tape recorder and the letter. All articles involve the character of listener participation in the segments, the development of the use of the technological components that constitute such a central part of these segments and the nature of these technologies' significance for listener participation.

The following forms a brief introduction to the dissertation's three articles, which are all submitted for publication in peer-reviewed journals. As of the dissertation's submission, Article 1 was accepted for publication, I was invited to resubmit Article 2 and Article 3 was submitted for an initial review:

- Article 1, 'Sometimes I think it is hell to be a girl. A longitudinal study of the rise of confessional radio' (forthcoming, *Media, Culture & Society*): The first article is a longitudinal study of both radio listeners' and radio hosts' use of the ATTR in *P4 pop*. I identify how the two groups, listeners through their messages and radio hosts through their recommendations for use, developed a range of uses for the ATTR (music request, interpersonal use, general opinion, personal opinion, creative and confessional use) from 1973 to 1996.
- Article 2, 'A telephone between us. *Tværs* and the materiality of the radio phone-in' (invited to resubmit, *Northern Lights: Film & Media Studies Yearbook*): The second article is an analysis of the home telephone's historical significance in the radio phone-in genre on the basis of a qualitative study of telephone conversations in *Tværs* and a historical account of the development of the telephone in Denmark between 1973 and 1993.
- Article 3, 'Constituents of a hit parade. Perspectives on the digital archive and listener participation in *P4 i P1's Det elektriske*

*barometer*<sup>3</sup>, with second author Erik Granly Jensen (in review, *MedieKultur*): The third article is an analysis of the character of listener involvement in *Det elektriske barometer*. We examine how the host represented the individual listeners' letters to the hit parade, the role of the letter at the level of the overall segment and its development over time in order to examine the possible development of the host's use of letters and listener inclusion in *DEB*.

Initially, the plan was for all the dissertation's articles to report on studies of the development and perception of the technologies used in each segment. This is the format of the first article, which is about the *P4 pop* segment and the ATTR. However, as I progressed and worked with material from *P4 pop*, *Tværs* and *Det elektriske barometer*, I became interested in studying the material from a slightly different perspective each time. The three articles build on one another as the theoretical arguments made in the first article are a starting point for the second article, while the third article refers to them but addresses the question of power balance, a question that is relevant to all the material but appears only briefly in the first two articles because of space constraints.

Advice for the reader: I recommend that this dissertation be read with this introduction to the summary first, followed by the articles, because their content is presumed to be known to the reader in the remainder of the dissertation summary. After having read the articles, the reader can then return to the summary and its three chapters that thematise the archive, accessibility and materiality, as well as the conclusion.

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<sup>3</sup> This article also exists in a Danish version, which is somewhat different in length and focus (it is oriented more toward the programme's historical background) than the one included in the dissertation. The Danish article has been submitted for an initial review to an anthology with the working title *Radioverdener. Auditiv kultur, historie og arkiver* (*Radio worlds. Auditive culture, history and archives*) under the name 'Byggesten til en hitliste. Lytterhenvendelser og værtsroller i P4 i P1's *Det elektriske barometer*'.

# Archive

The first theme is about the archive as an important element of the PhD project. ‘The archive’ here is meant to signify the digital or analogue archives I have frequented as a part of my empirical research and also ‘the archival’ in a more abstract sense as a form of logic or paradigm with which I have negotiated the methodological and theoretical choices made during the project. The choice of the archive as a theme is thus directed at giving the reader a sense of where the project’s empirical material stems from and what methodological choices were made in choosing and studying it.

## Two archives

Two archives act as central providers of this dissertation’s empirical material: the Danish National Archives (Rigsarkivet) and the digital sound archive *larm.fm*, which was under development during the LARM project’s lifespan. When I drew up the first plans for this PhD project, the two archives were thought of as equally important sources for the project because it was to be an institutionally oriented history of the B&U Department, taking developments in the *P4 i P1* broadcasts as its main case. This history would be based on a combination of written archival material, such as meeting minutes and strategy papers from DR and auditory radio archival materials, as well as historical accounts of changes in Denmark’s cultural policies from 1973 to 1997. The described project thus had a strong focus on external factors and their influence on programming in DR, as well as potential factors within the organization and its internal strategies at the management and programme levels. The radio material itself would be utilized as a comparative measure held against the development outlined by changes in policy and DR. I was also attentive to *P4 i P1*’s experiments with *accessible radio*, as I have come to define the genre in this dissertation (this is treated in the ‘Accessibility’ chapter), and was curious to see what the



inclusion of listeners would mean to the predictability of the programme when compared with official strategies.

The actual work of the dissertation, however, took a different turn when faced with practical reality. The main factor in this was the discovery that few to no recent documents from DR are available for researchers. There is an unknown quantity of documents in DR's internal radio archive, but requests from the LARM project for access to these have thus far proved fruitless. Therefore, access to DR's internal negotiations or formulations about content created for children and youth, or indeed any other department's productions, depends on the National Archives.

If a document is over 20 years old, DR is obligated to turn it over to the National Archives, 'the archive-holding body for the central authorities such as ministries, agencies and national organisations'. This ensures 'that authorities arrange and transfer their records in a condition that renders them useful to future users of the archives - and not least, to the authorities themselves' (both quotes from: "About the State Archives," 2013). As expected, this essential archival institution held a wealth of material detailing the mind-set of the B&U Department in the late 1960s and 1970s. There were also documents describing why a programme such as *P4 i P1* was created in the 1970s and how its audience was viewed, which I will discuss in more detail in the following chapter 'Accessibility', in which the programme's history is primarily treated.

However, after locating these documents, I made the surprising discovery that after the late 1970s, the amount and usefulness of the archive materials from the B&U Department declined dramatically. Documents such as meeting minutes, overall guidelines or other sources that could inform me about how young listeners were viewed were absent, and after 1988, the National Archives simply held no archival material from the B&U Department.

Through correspondence with archivists at the National Archives, I discovered that the cause is likely that DR stopped turning over documents from B&U after 1988. I did, however, not uncover any

cause behind this hole in the preservation of records from B&U in my communication with DR or discovered why the amount and quality of documents dropped after 1970 and stopped when it did. This state of affairs is very regrettable, both in relation to issues of preservation and DR's responsibilities as a public service broadcaster. Combined with the inaccessibility and opaque character of DR's internal document archive, the situation may pose severe problems in the future for the institution itself, as well as for scholars of Danish cultural history and media. In any case, we can assume that the documents in question have decayed or been discarded by now, which means that they are lost to us today.

This situation has several consequences. The lack of accessible documents from almost two-thirds of the time period studied in the dissertation's articles means that I had to change course and base my work on fewer and other sources. Writing an institutionally oriented history of the B&U Department is also, in effect, rendered impossible. This particular situation represents a more general development as well. Danish media history scholars, because of the absence of accessible archives in DR, are forced to design studies differently from their colleagues in, for instance, the UK, where the BBC has kept an expansive document archive. As can be seen from the publications stemming from the LARM project's research (for instance Lawaetz & Bøgh Brixen, submitted; Søndergaard, Markussen, Wetton, & Dehn, 2011; Thøgersen & Pharao, 2013), a tradition is forming in which Danish scholars are studying radio's history based, to a large degree, on auditory sources, not written material.

As described, the dissertation therefore draws on the digital archive developed in the LARM project, which I will treat in more detail in the following.

### **Generic tools / custom tools**

In 'Access and History. The digitisation of the Danish Broadcasting Archives and its Cultural Heritage' (2012), Granly Jensen addresses the consequences of the strict access policies of the Danish audio-visual

archives, which he argues have not only hurt cultural research but also 'been a major force in shaping the research that was possible during the no-access period both in terms of scientific methods and in terms of possible research subjects'. Above, I suggested that a national tradition is forming in which radio scholars' research is primarily being based on analyses of auditory material (using a wealth of different approaches) due to newly established digital access to audio-visual archives. Although it is regrettable if such studies are performed due to a lack of alternatives and supplementary written sources, these new approaches established in the post-'no-access' period also hold many promises.

For my work, minimal access to document archives has meant that I have rarely been tempted to export my impression of developments or strategies at the institutional level to *P4 i P1*'s content. Taking inspiration from John Law's critique of contemporary social science methodology in *After Method* (2004), I hold that any method contains assumptions about the world that affect its results. For instance, the use of archival documents to study radio carries with it the assumption that the production of radio on an everyday basis is, to some degree, ordered according to institutional strategies.

The world, however, is not necessarily a coherent place with predicable patterns that can be accurately represented in a graph or narrative but rather 'an unformed but generative flux of forces and relations that work to produce particular realities' (Law, 2004, p. 7). Previous studies of radio have not only provided historical and theoretical accounts of the medium but have also, in part, produced what radio is. Therefore, the potential new start represented by the digital archive, which has forced scholars to invent approaches and tools, creates a new opportunity for uncovering the particularity of radio. This dissertation does not, of course, represent a comprehensive exploration of a digital archive but rather one example of how access to digital archive material creates new possibilities for historical qualitative and quantitative analyses of radio's development.

One of the main elements of the LARM project was to develop of a new set of software 'tools' for the analysis of radio in the

digital radio archive CHAOS based on the needs and wants of a diverse group of researchers. These tools were to be developed alongside and with feedback from researchers' work with the archive material. The final functionality of these tools and when they would become available for use were unknown and therefore risky factors at the project's beginning. Consequently, I decided to plan a project that would rely solely on generic and readily available software. This also meant that I did not use the digital archive in the development of the dissertation's analyses, which were performed based on coding in QSR's qualitative analysis software NVivo.

Such a decision undoubtedly takes something away from an infrastructure project such as LARM because the project relies on the interdisciplinary and interinstitutional collaboration between all actors involved. Deciding not to base my project on LARM's tools-in-development meant that I was less involved in that collaboration. On the other hand, because I tested the suitability of software that is typically used in the social sciences, for longitudinal analysis of radio, LARM's software development team could use these experiences and take inspiration from its functionality, thereby incorporating other fields' approaches to working with auditory data. Of course, I cannot know how I would have interacted with the archive material had I decided to involve myself more greatly with LARM's development of custom tools for the digital archive instead of turning to existing software, which obviously shaped my work on the material.

Methodologically, my work on *P4 i P1* for this dissertation is experimental in the sense that to my knowledge, it is the first longitudinal study of its size involving both qualitative and quantitative analyses of radio's auditory content. The method, which will be described in greater detail below, has primarily consisted of shifting between data-driven and theoretical approaches to a representative sample of *P4 i P1* radio programmes. The methodology focuses on retaining openness toward the audio material rather than the supposition that the material can be mapped and charted using pre-existing knowledge and categories.

By letting the material, to some degree, provide categories and inform the project's focus, I have attempted to follow Law's notion, as described above, of the world as a generative flux. John Law is a key figure in the field of STS and therefore appears in this dissertation as a theoretical reference as well, since I base my approach to the significance of the telephone in *Tværs* (M. S. Abildgaard, submitted) on his and Ingunn Moser's concept of 'passage' (Moser & Law, 1999). This overlap is perhaps the clearest representation of the erroneousness of any binary opposition between method and theory, as methodological choices unavoidably also represent theoretical choices. Consequently, the approach to the archive described in this theme is invariably informed by my theoretical position, as described in the following chapters about accessibility and materiality, in which I stress how any conception of the world happens within a sociomaterial process that involve both human agents and technology. In this case, this dissertation has come to exist via a negotiation between myself, the archive(s), my computer, the chosen software and many other sociomaterial factors.

## **Sampling**

Because all three articles in the dissertation treat the question of sampling, there will be a certain amount of repetition between this dissertation summary and the articles in what follows. However, none of the articles provide a complete or particularly detailed look into the methodological process of working with the sample. Structuring the section as a syncopated group of comments on parts of the methodology that have not been treated in any of the articles would risk the intelligibility of the text, and I have therefore chosen to let the following sections act as a more complete overview of the project's methodology. Hopefully, this will improve the reader's grasp of the project as whole.

The empirical material for this project is a series of youth radio programmes produced by DR's B&U Department in the years

1973-1997. Over these years, the length of *P4 i P1* varied between 3 to 5 hours, depending on the amount of accompanying programmes<sup>4</sup>. This means that an estimated 4,500 hours of reportages, radio dramas, interviews, listener comments, contemporary music and conversations were broadcast under the *P4 i P1* heading before the switch was turned off for the last time on April 1, 1997.

As I have described above, there were limited possibilities in terms of analysis and speech-recognition software at my disposal, and it would have been impossibly time-consuming and expensive to digitalize and listen to all those broadcasts. Therefore, the study relies on a sample of the material, which was designed with the aim of representing the general *P4 i P1* programme as closely as possible. The sample consists of two programmes from each year of the study period, those broadcast on the first Sunday in May and the first Sunday in November.

As mentioned earlier, the programme ran until 1997. However, because the sample consists of programmes from May and November, P4's final year, which ended in April, has been omitted to retain consistency. This sample design amounted to a total of 167.5 hours broadcast over 44 Sundays (see more about the sample's properties below), so the average programme was approximately 3.8 hours long. In reality, between 1973 and 1996, the programme length varied from 3 hours to 3 hours and 30 minutes to 4 hours to 5 hours.

The sample days were chosen because on those days, there are typically no Danish holidays, celebrations or similar occasions that could make a radio programme vary from the norm. In cases where the DR's radio archive was incomplete on the sample day (there were three instances of this), the programme from the next possible date was chosen instead. In two instances, the specific sample programme could not be substituted for another, because the archive's gap was larger than

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<sup>4</sup> From 1986, *Det elektriske barometer* added an hour to the programme's length, and the contemporary music segment *Martha's Sunday School* (title not translated, it was partially in English and featured the American DJ Martha Podell) temporarily added an extra hour during the 1990s, which brought P4's total airtime up to an impressive five hours, for a time.

a few months, so the sample has a total of five instances out of 46 in which the chosen programme was not available or was substituted.

As mentioned, the strategy was to represent ‘the typical’ *P4 i P1* programme. The reality produced by this sample, in which half a year passes between each sample unit, is thus one in which local variations in each decade are smoothed out, so to speak. A sample in which half a year’s broadcasts in the 70s are compared to one in the 80s and one in the 90s might have underlined the specificities of style and topics in each decade, but the current construction highlights the everydayness of *P4 i P1* as a programme that recurred every Sunday night for 24 years.

The method used to analyze the sample as a whole is inspired by content analysis, a method that originated in early studies of mass media. Like the field of digital humanities and research using ‘big data’ today, researchers after World War II were attracted by the ‘very “massiveness” of available communications’ (Krippendorff, 2004, p. 11) in mass media. Here, I use Krippendorff’s (2009) distinction between quantitative and qualitative content analyses, and I have adhered to a rather basic quantitative design in which the occurrences of different variables, established either inductively or deductively (I will return to this for the individual studies), are counted or measured to provide information about the development or dominance of one variable over others. The content analysis approach was chosen because, due to its emergence in studies of mass communication, it is particularly suitable for surveying large amounts of data.

More concretely, empirical data management, categorization and parts of the analysis were performed in NVivo 10 software, which allows users to organize and analyze non-numerical or unstructured data. The content of the sample’s 167.5 hours of radio was partly given a summary written description in Danish and partly transcribed in Danish, all of which happened in a table with time codes that linked back to the appropriate spot in the audio file. The level of detail in the table text depended on the extent to which the content

could be regarded as ‘accessible radio’<sup>5</sup> and considered relevant for further analysis. Transcription thus varied from a few remarks describing half an hour’s radio to detailed ‘conversation analysis’<sup>6</sup> transcriptions (Hutchby & Wooffitt, 2008) of every word, pause and emphasis.

A few notes on the method I employed when coding written material linked to audio are in order here. The minimum unit of coding when coding text linked to an audio file is one letter in a word in a table cell (see example of note-taking in Picture 1), so in order for content to be coded using this approach, it had to have a written description. Therefore, each programme was divided into tables of several hundred cells, each covering from a few seconds to an entire programme segment. As with the transcription strategy, the amount of text within a cell was dependent on the content, so radio drama or interview segments unrelated to the focus of the project would be described in few sentences in one cell, whereas topics such as listener interaction and technology, as well as the listeners’ actual interaction with the programme, were divided into separate cells. These cells were expanded in number as I worked on portions of the material in detail, especially content from the *Tværs*, *Det elektriske barometer* and *P4 pop* segments.

To illustrate, I have included a photo (Picture 1) that

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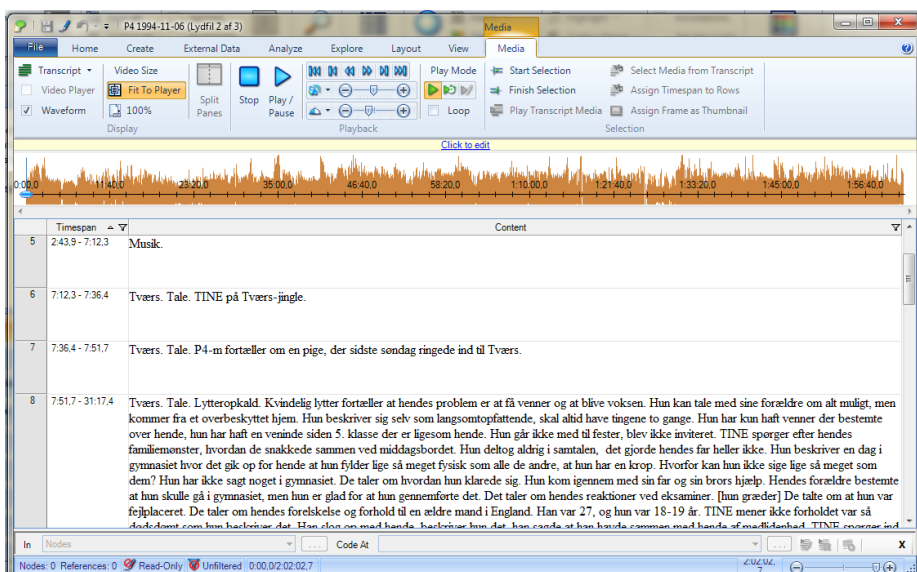
<sup>5</sup> Although I did not term the inclusion of the listener as such until much later in the project, a discussion of the notion of accessible radio and the process of defining its features appear in the following chapter on accessibility.

<sup>6</sup> The use of conversation analysis symbols in transcriptions is not connected to a conversation analysis method. Rather, it is motivated by an interest in presenting the reader, in lieu of open access to the audio file itself, with a more precise depiction of what was heard in the empirical material analysed in the dissertation. I have therefore endeavoured to avoid the interpretation involved in converting speech and sounds into a formalised text with capitalisation and punctuation. Although a selection of empirical material for a study necessarily makes up a construction, the ideal is to allow the reader to examine my reading of the material and possibly develop his or her own alternative interpretation. In the process of transcribing material from *P4 i P1*, such detailed transcriptions also functioned as a way to draw out significant but otherwise easily overheard details, such as pauses, special emphases placed on parts of words or background noises.



depicts how such a textual representation of a radio programme typically appears in NVivo. Here, a window is displayed in which a *Tværs* segment from November 1994 appears, with a representation of the audio file's waveform in the upper part and the text description in the lower two-thirds of the picture. One can see how the first cells in the content description table, named 5, 6 and 7, are only summarily described. In the case of the first cell, this is only one word, 'music'.

The cells span from 2:43.9 until 7:51.7 in the audio file and cover a musical track, the opening jingle to the *Tværs* segment and the programme host's introduction to the following conversation. Cell



Picture 1: Textual representation of a radio programme in NVivo

8, however, is linked to a section in the audio file in which host Tine Bryld has a telephone conversation with a listener. Here, a sentence-by-sentence description ensues, reflecting the fact that the conversation, like all conversations in *Tværs*, was relevant to my study, but not so crucial as to warrant a full transcription at the first encounter. If this conversation proved to be of interest due to later developments in my focus or understanding of the material, I would have returned and transcribed the section using symbols from conversation analysis, as

seen in the quoted examples in all three articles.

In some instances, this approach would mean that it would be difficult to quantitatively determine how much a specific code is present in the actual audio material because the topic or kind of interaction it covers will sometimes only occur for a few seconds but appear in the text of a table cell that represents five minutes of material. However, because the transcription strategy aims to most accurately represent the most relevant material, listener-created content and technology use is described in the greatest detail, and therefore, they are better reflected in the material.

## **Coding**

After the written description, the entire sample was encoded with a set of descriptive coding categories developed using an inductive (Boyatzis, 1998) approach. The idea to perform purely descriptive coding before the analysis was inspired by grounded theory (Glaser & Strauss, 1980), as was the development of NVivo's software and the use of coding in general. One hypothesis behind this way of working with data is that the researcher presumably avoids influencing the outcome of his or her investigations because the results are not inferred through theoretical analysis. Instead, they are obtained through intensive and lengthy work with the material, which creates a theory and vocabulary unique to its project. The grounded theory tradition, however, holds the fundamental assumption that the 'true' research result exists inside the material and can be seen after copious scrutiny. The inductive approach is also becoming popular within the field of digital humanities (Berry, 2012), but as remarked in 'Constituents of a hit parade', I fully recognise the 'lure of objectivity' (Rieder & Röhle, 2012, p. 70) within both such inductive approaches and acknowledge that I operate based on pre-understandings that affect what I ask of and see in the material.

Examining the three approaches chosen in the dissertation articles, there seems to be a wide gap between the software for qualitative analysis and the phenomenological approach introduced

in the analyses. On the other hand, within a phenomenological understanding, which I will return to in the ‘materiality’ theme, the inductive approach can be a way to turn to ‘things themselves’. The project’s overall approach is motivated by an attempt to avoid pre-conceived notions about the unknown contents of an archive such as DR’s, without assuming that my findings represent an objective truth. It is thus guided by (post)phenomenology rather than grounded theory. Also, although I do not subscribe to the idea that true meaning resides in the material or can be discovered through transcendental phenomenological notions, such as the Husserlian epoché (see p. 60), I find that efforts to avoid assumptions that could influence the results of a study are part of any reflective methodological approach.

However, I would be remiss if I did not acknowledge, again with reference to Law (2004), the influence a tool such as NVivo has had on the reality produced in this project. For instance, I have been oriented toward approaching the radio material primarily in ways that take advantage of the possibilities presented by the software. Nevertheless, in addition to enabling its user to classify, sort and arrange empirical material, the benefit of employing a generic tool is that it is built to accommodate a wide range of research methods. The broad array of possible classifications and arrangements in NVivo lends itself to phenomenological approaches in which material is coded, for instance, according to the perceptions expressed by subjects, such as a radio host or caller. Starting from a different approach, NVivo can be straightforwardly used for research methods such as discourse analysis, grounded theory and conversation analysis. As will be described below, this flexibility is expressed in this project as well, as my approach to the empirical material from the archive was not constant throughout the dissertation’s articles. Rather, the project was performed in multiple coding phases that described and sorted *P4 i P1*’s content.

Because of the software’s emphasis on structuring, linking and modelling, NVivo was used most extensively in the dissertation’s mixed methods approaches. However, for the article on *Tvars*, which

relied on close qualitative analysis, the coded descriptions in NVivo were also used to select what empirical material to analyse.

Turning now to the project's central coding categories, Figure 1 is a rendition of the descriptive coding tree that was developed during the first round of coding on material from *P4 i P1*. As we can see, it includes three basic, mutually exclusive distinctions in the material: whether it consists of 'music', 'silence' or 'talk', which were introduced in an effort to sort the material into rough categories and enable me to focus on smaller portions of the sample. 'Music' involves jingles, songs etc. that last for more than 30 seconds. As for 'silence', I have coded for silences that are noticeable, i.e., those that last more than a few seconds. Because this is a study of accessible radio and

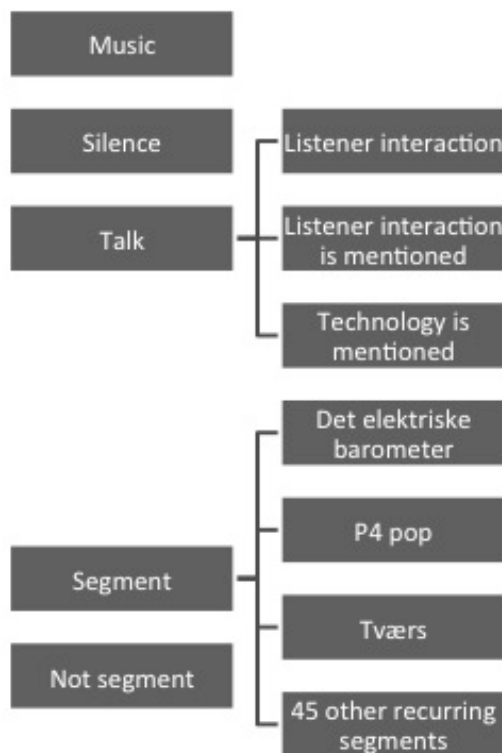


Figure 1: Descriptive coding

technology, and silence and music rarely provide information about how technology is used in radio interactions, all relevant codes in the following analyses ended up falling under the ‘talk’ code.

The material was also divided between recurring segments

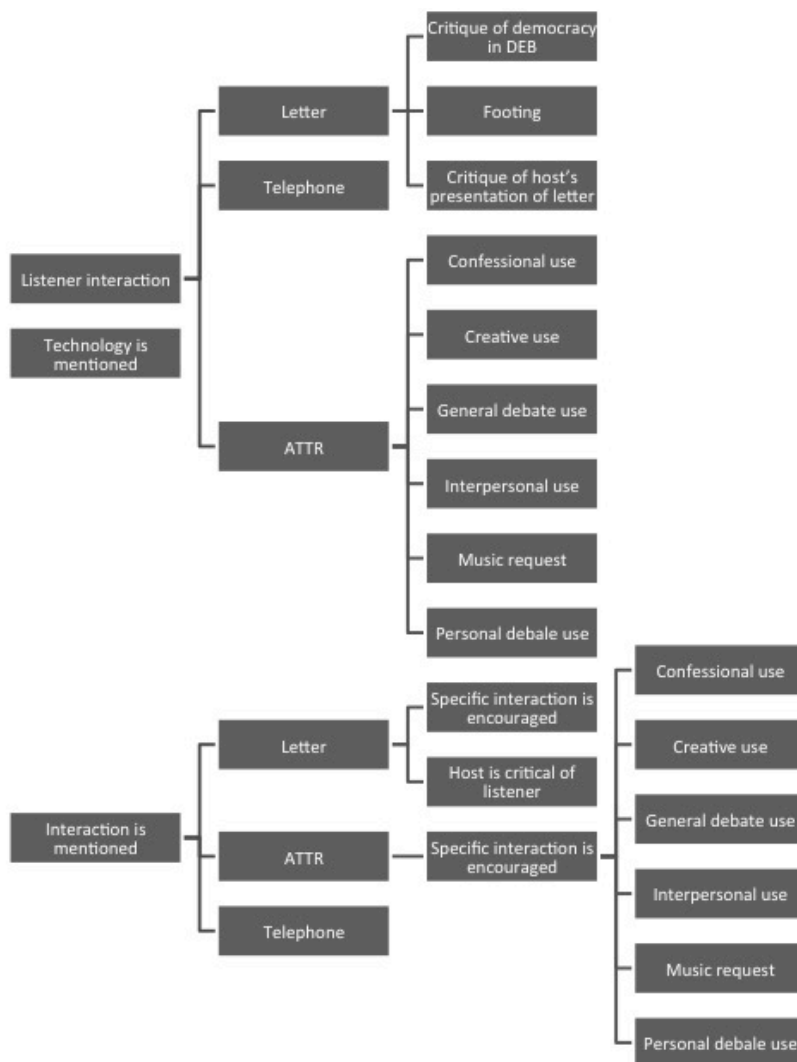


Figure 2: Analytical coding

and 'loose talk' or temporary segments so as to gain an overview of *P4 i P1*'s structure over 24 years, and to enable compound coding (i.e., searching for two or more codes that, for instance, occur at the same time, near one another or not together) of the various topics and interactions that occur in these segments.

After the descriptive round, I began a second round of analytic coding in which more analytic categories, resulting from the analysis of the first round of coding, were utilized. This second round was performed within portions of the sample that were already coded, not in the entire sample, because the relevant portions of the material for the dissertation's articles had now been identified. The code categories 'listener interaction' and 'interaction is mentioned' for letters, the ATTR and the telephone, as well as a compound coding for 'technology is mentioned' and 'interaction is mentioned', provided the basis for the second round of coding. Figure 2 is a rendition of the analytical coding tree that was developed in increments while writing the articles about *Tværs*, *P4 pop* and *Det elektriske barometer*.

Now, to pick the presented (tidy) process apart and show how such a division between description and analysis is not absolute, some codes overlap in both models, namely those that figure in the top part of the second row of the descriptive model and the first row of the analytical model. These codes simultaneously mark the end of the description and the starting point for the second round of analytical coding. Codes such as 'listener interaction' and 'technology is mentioned' come from an early interest in technology and the uses of technology and thus function as transitional codes between descriptive and analytical-theory-driven (Boyatzis, 1998) approaches. 'Technology is mentioned' is a key example of such a transitional code because it stems from my theoretical interest in technology's role and does not merely designate content in which someone, for instance, says the word 'telephone'. Rather, it is coded on the basis of a qualitative assessment of whether a technology is mentioned en passant (e.g., a listener mentions they were driving in a car) or brought up as something that is to be used a certain way (e.g., a host asking listeners to call *Tværs* on the

telephone), as a topic for conversation or in relation to someone expressing their view on a certain technology.

The sample makes up the empirical foundation for all three articles. However, the sample is utilized in a different way in each study. Consequently, to explain the appearance of the coding tree in Figure 2, which presents a second, dispersed round of coding in one figure, it is important to address how the articles differ methodologically with regards to the coding strategies used, as well as how qualitative and quantitative analyses of the sample are involved in the study of each segment.

The study in ‘Sometimes it is hell to be a girl’ is based on a data-driven approach to coding (Boyatzis, 1998, p. 41) because I was working with the *P4 pop* material from a phenomenological perspective and was interested in learning about hosts’ and listeners’ developing experience with and use of the ATTR over time. After having studied both all the host comments about listener interactions and all the listener comments on the ATTR, I developed a set of codes to describe the main ways in which the ATTR was used. As can be seen from a glance at Figure 2, both ‘listener interaction’ and ‘interaction is mentioned’ are coded in several sub-codes under ‘ATTR’. One example is as follows:

‘interaction is mentioned’ ->  
‘ATTR’ ->  
‘specific interaction is encouraged’ ->  
‘music request’

This very specific code refers to content in which there is a discussion of interaction via the ATTR, specifically when listeners are encouraged to request a song. The central codes for the study were the six sub-codes for uses within both ‘listener interaction’ and ‘interaction is mentioned’: ‘confessional’, ‘creative’, ‘general debate’, ‘personal debate’, ‘interpersonal’ and ‘music’. These describe the six main ways I identified that hosts and listeners used the ATTR. Qualitative as well as

quantitative changes in these coding categories made it possible for me to study how the use of the ATTR developed over time.

In contrast, the study in the following article, 'A telephone between us', was performed on the basis of a theory-driven approach to coding (Boyatzis, 1998). The material was approached from an STS perspective in which I focused on the telephone's historical significance within the radio phone-in in terms of materiality. Looking at the coding tree, we can see how listeners using the telephone to interact ('listener interaction' -> 'telephone') and talk about interacting via the telephone ('interaction is mentioned' -> 'telephone') have no sub-codes. The only code utilized for this study was thus 'technology is mentioned', which was supplemented with the two sub-codes mentioned above. If one performs a compound search of these codes in the material, together, they describe content from the sample in which a host brings up technology while speaking about listeners on the telephone, as well as content in which listeners bring up technology while using the telephone to interact with *P4*.

I did not, as opposed to the previous study, develop a set of inductive coding categories to describe listeners' use of the telephone in *Tværs*. I also did not perform a longitudinal study of changes in such use, but rather a close qualitative analysis of one example from *Tværs*, in which a listener called the segment from home with great difficulty. This example was found by looking through the 37 coding instances in a composite of the codes 'technology is mentioned' and 'Tværs'.

As described in the article, the reason for the choice of this qualitative approach was that developments in *Tværs* appeared to be more opaque than in its accessible counterparts *P4 pop* and *DEB*. I could not, after having written an article about *P4 pop*, see similarly well-defined developments in the *Tværs* segments. Although qualitative development surely took place in *Tværs*'s conversations (which were initially mostly focused on practical matters but later became dedicated to personal and emotional topics), material that could illuminate the segment's technological arrangements often came from other segments, such as *P4 pop*. Here, listeners would phone the ATTR and complain



that they did not, for instance, have the private access to a telephone that was needed to phone *Tværs*.

Conceivably, *Tværs*'s development was less transparent because as a phone-in programme, as opposed to *DEB* and *P4 pop*, it consisted of conversations with a professional host who was able to direct conversations. As *Tværs*'s consistent host throughout the sample, Tine Bryld may have smoothed out transitions and technology relationships that were more apparent when listeners were alone or at least without professional guidance when they contacted the segment, as is the case with letters and ATTR messages. Another reason for the smoothness of *Tværs*'s development over time may stem from *Tværs*'s purpose, problem-solving and counselling, which arguably oriented its producers toward showcasing conversations in which listeners got to the point of what they were calling about without too many mishaps. These conversations could arguably be considered the most useful for listeners, as well as the most beneficial for the segment's image. In any case, segments that included listeners' or hosts' reflections about the telephone occurred relatively rarely.

However, having such a rich sample of material from *Tværs* did provide one example of a conversation in which technology became part of the caller's central problem: An entire conversation with *Tværs*'s host in which the caller's mother listened in on another line, which emphasized the home telephone's significance as an overlooked element of *Tværs*. I therefore decided that a qualitative approach would better express the technology's role in the segment. This conversation became the study's analytical focal point, but it was brought into perspective by one example in which a listener called *Tværs* from a telephone booth and another in which a listener reported why she chose to call *P4 pop* instead of calling *Tværs* from home or from a telephone booth.

Finally, the study in 'Constituents of a hit parade' consists of a more evenly distributed qualitative and quantitative analysis because the analysis of the degree of listeners' involvement in *DEB*, which follows Carpentier's concept of participation, calls for a comprehensive

analysis of the concept on a range of levels. Because the different formats and contents of the three segments have necessitated different methodological approaches, neither the approach in the previous article, on *Tværs*, nor that in the first article, on *P4 pop*, was repeated. However, elements from both the longitudinal study of developments and the close analysis figure in the article. In discussions with my co-author Erik Granly Jensen, we also debated how to better integrate the qualitative data from the sample into a study of *P4 i P1*, since I believed that this approach could be explored and that those data could be put to further use than in the previous studies of *Tværs* and *P4 pop*.

As described in the article, we developed a set of ‘data-driven’ (Boyatzis, 1998) codes to systematize *DEB*’s content. There were initially around 20 codes that each addressed very different aspects of the material. These had to do with, for instance, a listener’s relationship to the segment’s music or the mood of their letter. During that process, we developed an interest in material that could address the character of listeners’ involvement in *DEB* and chose to focus on material in which the presentation of a letter displayed the power balance between host and listener. These can be seen in Figure 2 under ‘listener interaction’ -> ‘letter’ and ‘interaction is mentioned’ -> ‘letter’, i.e., material that covers listeners’ letters in *DEB* and hosts’ comments on these letters. The material coded in these sub-categories then became the starting point for the study’s micro- and meso-level analyses.

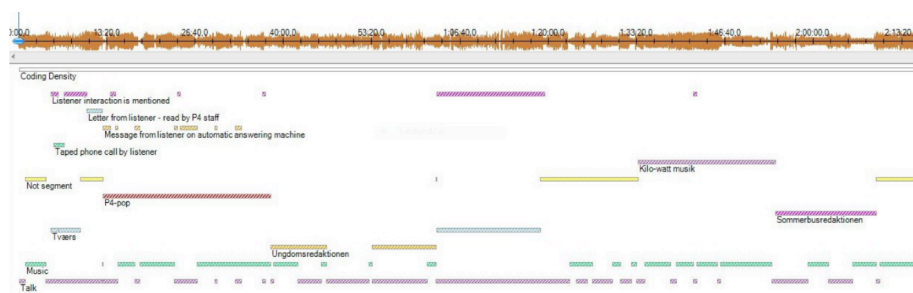
The study’s macro level-analysis builds on visualisations of developments regarding how many times and for how long hosts read from letters in *DEB* (see the article’s Figures 1, 2 and 3). These visualisations came from the code ‘listener interaction’ -> ‘letters’. From here the time code, date and information about which host was reading all the letters in the sample were exported from NVivo to the statistical program SPSS. In SPSS, the time codes were quantified into number of seconds and the graphs in the article were generated.

## Perspective and discussion

After having shown how the archival material has been utilized in the dissertation's three articles, I would like to turn to a discussion of how things could have been better, what I would have liked to include and some of the other possible uses the methodology sketched above present.

Although the study's methodological approach has been time-consuming, the thorough manual description of the audio material means that the approach can easily be used for studying aspects of radio's content that are entirely different from listener involvement. One possibility is examining radio's flow and development over time, which I experimented with in the project's early stages.

Picture 2's screen capture from NVivo shows an overview of how a group of coding categories are distributed throughout an audio file from a programme broadcasted in 1973. Starting from the bottom, the first two coding categories signify music and talk, the middle signifies the various segments (*Ungdomsredaktionen*, *Trærs*, etc.) versus content that was not part of a segment and the top four rows are coding categories for talk about listener interaction, letters being read, messages on the ATTR and telephone conversations with listeners.

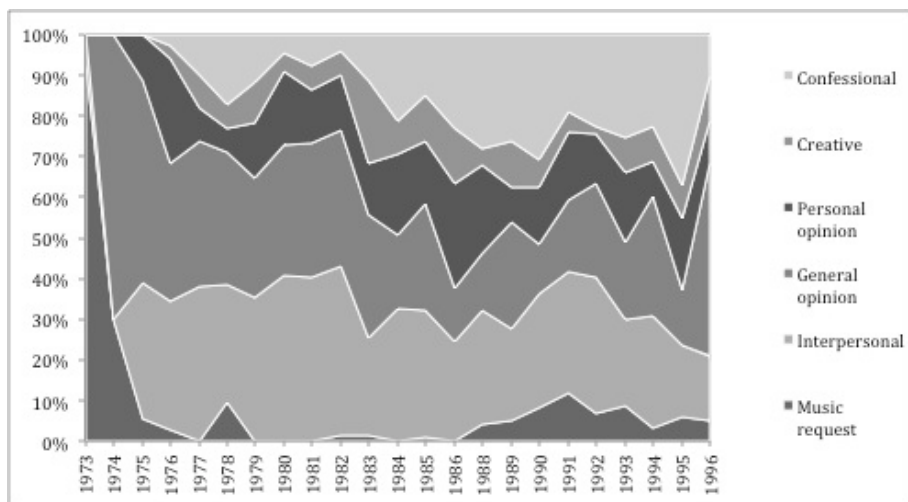


**Picture 2: Programme flow**

The top orange audio waveform shows the volume and time code, showing the file to be more than 2 hours long. In combination with other visualizations, such a presentation of the content of a radio programme could be used for a range of studies on radio's content, for

instance, on how radio has been organized over time, its programme-level flow, how music has been used in various genres or the quantitative changes in talk versus music on the radio.

With regards to methodology, the anthological format has been an advantage in that it has allowed me to start over and view the material from three different approaches without feeling the need for each and every argument created along the way to form a part of a grand narrative. On the other hand, the journal article's *tabula rasa* has made it difficult to incorporate the ways in which *Tværs*, *P4 pop* and *DEB* are interconnected as parts of *P4*. Because of the need for focus in a journal article, the segments have sometimes appeared to be isolated from the context in which they were produced and with which they were, of course, in constant dialogue. One example is Figure 1 in 'Sometimes I think it is hell to be a girl', which I, for convenience's sake, reproduce here:



Article 1's Figure 1

In the article, I show the figure to provide the reader with an overview of the development that will be described in the qualitative analysis and initially comment that we can see how 'music requests' was the only central use of the ATTR during its first years. As can be gleaned from

the figure, this kind of use all but disappeared after 1979 because the ATTR was used increasingly for debate. However, a curious thing happened in 1986, when the music request use reappeared. Discovering the significance of this development must be credited to my advisor Erik Granly Jensen, who remarked that this happened just as *DEB* was introduced as a segment in *P4 i P1*. The figure thus shows how the various segments of *P4 i P1* have influenced each other. However, this observation would have taken up too much space in the article because it would have meant introducing the reader to a much broader part of the programme's content than just the segment in question.

Additionally, the sample design is an extraordinarily important element of a project founded on empirical archival data, such as this one. Whether a sample is large or small, representative, handpicked or randomized, a well-designed sample can allow for a broad range of approaches, while a poorly designed sample can be detrimental to the validity and generalizability of a study's findings. In this case, I wish I had known a bit more about what material was available and the content of DR's archive before designing the sample.

Overall, a representative sample has proven to be a good foundation for these studies of *P4 i P1*'s development over time. However, in designing the details of the sample, I was not attentive to the interactions that occurred between listeners, as well as between listeners and hosts, from one programme to the next, because I was not initially oriented toward studying the programme's listener involvement. In hindsight, I would have either supplemented the existing sample (which, as mentioned, consisted of approximately one programme per six months) with a few programmes in a row, or maybe even designed the sample as two or three programmes in a row per year. In retrospect, it would perhaps have been relevant to know how debates developed between programmes and how comments were received than to secure an even distribution of programmes. It would also have been easier to answer some of the questions that appear in the articles about *P4 pop* and *DEB*, treated in the following chapter on accessibility, in which I discuss who primarily drove change in these segments and what the

power relationships between the listeners and hosts were like.

## Accessibility

The empirical material in the dissertation's articles comes from three segments whose formats are all listener-oriented, so the theme of 'accessibility' addresses a question that has been persistently relevant throughout the project: How does one label, with a single name, the various formats within the genre of radio programmes that involve their listeners? In part, this theme functions as a recapitulation of my changing answer to this terminological question. In addition to aiming to define and label listeners' involvement in *P4 i P1*, the theme forms a historical narrative of the programme and DR's productions for children and youth through which I also address why these listener-oriented formats were such a large part of *P4 i P1*.

To position this chapter in the dissertation, it addresses one part of the two main theoretical approaches, critical theory and (post)phenomenology, through which I have studied *P4 i P1*. On the one hand, I have approached *P4 i P1*'s productions from the perspective of the understanding of the media that the programme itself has introduced, namely critical theory and Marxist media-theory, such as those of Bertolt Brecht and Hans Magnus Enzensberger. As a way of questioning the way in which this critical approach to media is actually performed in the programme's productions, I have employed Carpentier's concept of 'participation', which is also rooted in critical theory. The introduction of critical theory and phenomenological approaches to technology has two motivations. One is the need to understand the programmes as they frame themselves, especially in the 1970s. The other theoretical approach makes up an alternative perspective that highlights elements of *P4 i P1*'s productions that its producers did not necessarily emphasise or notice, such as the way in which radio hosts relate to technology, or the way in which these relations have offered changing definitions of technology's role as a part of the programme's accessibility. The first perspective will be treated in the present chapter, while the other is the subject of the third chapter,

which covers the theme of materiality.

### **Two-way radio**

During the first year of my work, I often talked about the material as ‘youth radio’ and ‘public service radio’, but this description omitted obvious similarities between the material from *Tværs*, *P4 Pop* and *Det elektriske barometer* because all three segments involved their listeners by inviting them to contact the segments and act as co-producers of their content. To complicate matters, there is a pre-existing term for the material from *Tværs*, since the concept of listeners dialling into a radio programme and speaking to a host is typically described as a ‘phone-in’ (Crisell, 1994, p. 189ff.).

Because of its dependence on the relative accessibility of telephones, the phone-in genre is absent in early radio broadcasts. The circumstances and details surrounding the genre’s emergence is an area regarding which scholars are often vague. The term ‘phone-in’ is described as being coined in the United States in 1968. It first appeared in the United Kingdom in 1971 (Street, 2006, p. 204). Crisell, however, pinpoints the phone-in’s appearance in radio in Britain to a local station, BBC Radio Nottingham, three years previously, in 1968 (1994, p. 191).

In Denmark, the history of the phone-in (or ‘*telefonprogram*’, as it is called in Danish) has not been the subject of systematic academic study. The genre’s appearance does seem to correspond with the previous sketch of its history in the UK and USA, as a programme called *De ringer, vi spiller*, which literally translates as *You call, we play*, debuted in 1968 on DR’s channel P3. *De ringer, vi spiller*, on which listeners would call in, small-talk with the host, answer a question and request a song, was one of the earliest, if not the earliest, instance of a Danish phone-in. Being first broadcast in 1972 (Bryld, 2002), *Tværs* was introduced not long after, making it an early example of its genre as well.

Crisell argues that the phone-in’s purpose is to ‘attempt



the ultimately impossible feat of providing feedback for the listener (...) In other words, the phone-in enables broadcasters to create the illusion of a two-way medium' (1994, p. 61). What I find interesting in this characterization is not so much Crisell's well-founded finding that radio talk generally attempts to give listeners the sense that a dialogue is going on. Rather, it is noteworthy that the appearance of the phone-in genre, at least in the European context Crisell is addressing, may be partly inspired by the idea of providing, however illusory, two-way radio. The phone-in's appearance in 1968 thus ties it to the political movement of the 1960s and 1970s, as well as the era's critical media approaches, such as poet and author Enzensberger's description of media as ideological state apparatuses (Enzensberger, 2003, orig. 1970), in which two-way media concepts are envisioned as potentially productive answers to oppressive media as ideological state apparatuses.

However, it seems contradictory to designate the material from the phone-in programme *Tværs* as entirely separate from the segments described in the two other cases when all three concepts clearly spring from the same emancipatory and inclusive ideas and involve similar elements: Communication technologies allow listeners to contact the segment, listeners are invited to co-produce content for the radio, and the final broadcasts include, in a more or less mediated form, the voice of the 'ordinary person' mixed by professional producers.

Similarly, Enzensberger's essay from the 1970s builds on much earlier critical approaches to media, namely those of the avant-garde poet and playwright (for both theatre and radio) Bertolt Brecht during the 1930s, in which the concept of radio as a two-way apparatus is originally envisioned (Brecht, 1986, orig. 1932). Although the degree to which Brecht's Marxist-inspired vision of two-way radio influenced the European radio broadcasts of his time is not easily identified, in an American context, a general interest in involving the 'everyday man' in radio seems to have existed. As we learn from Loviglio, radio's involvement of everyday people during that era was guided by prosaic commercialism, as well as more idealistic democratic notions: A new group of participatory programmes, such as *Meet Joe Public*, *We the People*

and *People's Platform*, were 'creating a analogy between participatory culture, participatory democracy, and a new culture of consumption' during the 1930s (2002, p. 90). Both the more radical participatory democratic notions, as well as the interest in listeners as consumers,<sup>7</sup> thus form the background of radio archives' letters from listeners and spontaneous street interviews from the earliest days of broadcast radio (see for instance Loviglio, 2005). These early examples of experiments with two-way radio should be considered part of the prehistory of the phone-in.

My argument here is that some of our current terminology about listener-oriented concepts in radio is inaccurate because it prompts us to needlessly separate very comparable formats while overlooking the relevant prehistory this group of formats may have. In the following, I will therefore examine how the genre definitions and terminology pertaining to *Tværs*, *P4 pop* and *Det elektriske barometer* could be improved.

### **The process of defining and naming things**

In an effort to develop a common terminology for *Tværs*, *Det elektriske barometer* and *P4 pop*, I initially adopted the popular concept of 'participation' and described radio content that involved the listener as 'participatory radio'. This initial definition required clarification and limitation, of course, because 'involving' is such a broad term, and all radio content can be argued to involve its listeners through the act of listening, in part due to the dialogical style of talk radio hosts adopt, as Crisell observed. I therefore decided to describe participatory radio

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<sup>7</sup> Interestingly, this paradoxical double motivation for radio's involvement of listeners is repeated as *P4 i P1* is launched. As I will discuss further in what follows, *P4 i P1* was inspired by Enzensberger's text on media as ideological state apparatuses, but in an interview with Samsøe-Petersen, he portrays the advertising industry's methods (for instance, target group research) as similarly foundational for the programme's inclusive approach to listeners. For a transcription of the interview (in Danish), see Abildgaard, M. C. B. (2008). *Du lytter til dig selv – en undersøgelse af offentlighed og modstand i ungdomsradioprogrammet P4*. University of Copenhagen, Copenhagen.

more narrowly as radio in which members of the public were invited to or independently decided to co-produce content for a radio broadcast. A border case would be performing a feature on a listener's life, while contacting random people on the street for a vox pop would fall squarely within the definition. I found a very similar term in the work of Loviglio (2005), who refers to the genre as 'audience participation programs'.

'Participation' was therefore used in early versions of my first and second articles to describe the kind of material one could hear on *P4 pop* or *Tværs*. As the analyses progressed, however, there seemed to be important distinctions in how listeners were involved in the segments, and these distinctions were not addressed in the terminology I was using. For instance, while working with the material from *P4 pop*, the question of power balance between the participating listeners and radio professionals arose. The article describes the rise of confessional radio on the ATTR in *P4 pop* and uses that development to study radio's formation over time. Although the focus of the article is on materiality's mostly overlooked significance in radio, another important piece of the puzzle was uncovering from what end of the broadcaster-listener spectrum new approaches to the ATTR came.

In 'Sometimes it is hell to be a girl' (p. 107), I quote programme host Steen Rasmussen as he announced what he called a 'completely new use' of the ATTR:

but we have not forgotten (.)  
what P4 is about this month  
it is actually about hh music theatre films  
and magazines h  
that is all that media  
you get in your face every day hh  
media it's of course not only just  
that big entertainment machine  
that others (.) make money on  
and that they make

without us being able to get in on it  
(.) it is for example also fashion  
(.) <it is how we look  
(.) how we> express ourselves everyday (.)  
that is media also means expressing yourself  
and using the media (.) and being heard  
and <you have had the opportunity  
to do that for a while>  
namely on P4's telephone recorder hh  
now P4 will present something completely new  
a whole new use of the telephone recorder  
(.) which is (.)  
>listen to P4's telephone tape show<  
1983-11-06(1) 5:10,8 - 5:51,9

In the article, this quote functions as a way of illustrating how Rasmussen and the other hosts of *P4 i P1* dealt with listeners' changing use of the ATTR along the lines of Enzensberger's idea of productive engagement in media as an answer to the notion of media as ideological state apparatuses (Enzensberger, 2003). On p. 108, I conclude the following:

Rasmussen's argument of opposing the media's power through contribution thus provided listeners with an acceptable framework in which to contribute with new non-political creative performances and stories in the otherwise emancipatory program.

In relation to my understanding of and interest in participation, however, the quote also illuminated something else, which was that despite what Rasmussen says here, listeners introduced every new use (excluding the original music requests) of the ATTR in the study's sample. In this instance, as noted in the article, a message featuring a listener singing a loud off-key version of Frank Sinatra's 'My Way' is

played immediately after the quote. Rasmussen comments that this listener has been leaving that message every week as long as he can remember, thereby disclosing that listeners had, in fact, been using the ATTR creatively for a long time, which was contrary to Rasmussen's statement that he was announcing a new kind of use.

Despite this, Rasmussen sees himself as able to present 'a whole' new use of the ATTR because the balance of power between hosts and the listeners in *P4 pop* is fundamentally uneven; listeners can call the ATTR and leave a message and are in this way personally represented through their voices in the segment, but they have no control over whether their message is edited or shortened, whether it is used, and in what context it is presented. In this way, it is the host's prerogative to define 'new use'. This characteristic of the power balance seemed to be a crucial element in a participatory radio programme, which was not addressed in my work with *P4 i P1* at the time.

In the article, I conclude that both listeners and radio hosts act as co-creators of media communication technologies as they negotiate and re-negotiate them from each end of the broadcasting spectrum, however:

further longitudinal studies into the relation between listeners and broadcasters in accessible radio are needed if we are to clarify the nature of this genre as a historically democratic or participatory aspect of the radio medium.

((M. S. Abildgaard, forthcoming, p. 115-16)

This comment reflects the new questions that appeared once I began to wonder what kind of power relationship existed between listeners and radio hosts on *P4 i P1*. A few months after submitting the first draft of 'Sometimes it is hell to be a girl' for publication, I began collaborating with Erik Granly Jensen on the article 'Constituents of a Hit Parade. Perspectives on the digital archive and participation in *P4 i P1*'s *Det elektriske Barometer*'. The article was to be a mixed-methods study of the development of *Det elektriske barometer*, but because the segment

specifically addresses the notion of democracy in terming itself ‘the listener-determined’ and ‘the democratic hit parade’, the question of power relationships between listeners and radio hosts therefore took centre stage.

In preparation for the study, I read Carpentier’s convincing argument that ‘participation’ is being used too broadly in contemporary media studies (Carpentier, 2011a, 2011b), thereby preventing the term from precisely describing the distribution of power between listener and broadcaster. The over-stretching of the term also causes ‘the more maximalist meanings of “participation” to remain hidden’ (Carpentier, 2011a, p. 28). This convinced me that using the term participation to describe radio programmes in which listeners were involved in any way was misleading.

In the AIP model, Carpentier distinguishes between ‘access’, ‘interaction’ and ‘participation’, which are otherwise often conflated into one notion. In a media context, access:

implies gaining a presence within media organizations, which generates the opportunity for people to have their voices heard (in providing feedback). If we focus more on media production, access still plays a key role in describing the presence of media (production) technology, and of media organizations and other people to (co-) produce and distribute the content.  
(Carpentier, 2011a, p. 28)

In contrast, interaction is ‘the establishment of socio-communicative relationships within the media sphere’ (2011a, p. 29). Access and interaction make up the necessary foundation for participation, but the crucial difference is between interaction and participation, which represent an imbalance in power and an equally balanced relationship between users and the media organization, respectively.

Carpentier grounds participation in political-democratic theory:

The political-democratic, and the distribution of power in society that lies at its heart, is a dimension of the social that permeates every possible societal field. But democratic theory still takes a privileged position in the theoretical discussion on participation, as it immediately shows its political nature, and the key role of power in defining participation.

(Carpentier, 2011a, p. 24)

Because Carpentier connects participation to democratic theory, he proposes that participation, depending on its specific manifestation, relates to different democratic models on a continuum. This continuum goes from the minimal representational democracy, in which politics is confined mainly to expert representatives, to maximal democratic notions within Marxist theory, for instance, in which participatory and representative democratic models are balanced and the goal is to maximize participation.

Defining the concept of participation is therefore in itself a political-ideological act because the inclusion of more maximalist democratic notions into a media context is a way of inscribing media production into a societal power struggle in which the maximization of participation is the ideal. On the other hand, employing a more minimal participatory concept is a way of silencing this struggle and naturalizing the creation and control of media content in an institutional setting.

This power struggle was clearly present in the creation of *P4 i P1* itself through the programme's orientation toward a young audience, who were otherwise often overlooked in DR's programming. It was also present in the way *P4 i P1* programmes were targeted toward listeners who were unemployed, had dropped out of school or were otherwise marginalized<sup>8</sup>. To address this implicit struggle, I arrived at

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<sup>8</sup> *P4 i P1*'s focus on marginalised listeners was discussed by Samsøe-Petersen in an interview with Mette Simonsen Abildgaard (ibid.) and referenced as a goal for the

the term ‘accessible radio’ as the most precise yet open term to describe radio material in which listeners are involved. The notion takes its name from the lowest level of Carpentier’s AIP model so as not to delineate a specific level of involvement. The concept therefore includes any imaginable format that is primarily oriented toward involving listeners in radio, such as listeners accessing the radio through letters, an interview on the street or phoning in. Following Carpentier, one limitation is that such access is *invitational* (Carpentier, 2011a, p. 28), meaning that users or listeners are establishing contact on their own account; it is not imposed on them by the broadcaster. In contrast to the phone-in, the notion of accessible radio is non-historically specific, thus inviting the scholar to take the history of listener involvement in radio into account when studying an accessible format. Finally, the term also addresses the potentially problematic way listeners have been invited to participate in media by refraining from assuming a specific power relationship between listener and broadcaster.

Carpentier’s terminology is especially fitting in a *P4 i P1* context because it is informed by the same critical theory as the programme itself. I will address the programme’s ideology in more detail in the following after discussing the context that contributed to creating *P4 i P1*, the media landscape of the 1960s and 1970s and the department it was generated in.

### **The production of *P4 i P1* as accessible radio**

Having established a term for *P4 i P4*’s accessible segments, I will now turn to the programme itself. As the format and development of *Tværs*, *Det elektriske Barometer* and *P4 pop* are all treated in the dissertation’s three articles, here, I will focus on exploring the background for introducing such a range of accessible formats.

One obvious question in the study of how an accessible

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B&U Department as a whole in a publication from 1975, referenced in the summary’s section on ‘*P4*’s frame: The B&U Department’.



programme like *P4 i P1* develops is why such large parts of the programme were oriented toward listener participation in the first place. This is a question that cannot be fully answered by looking at the project's sample from the DR radio archives, because the conceptualization of *P4 i P1* necessarily pre-dates the programme and also because accessibility is tied to many other factors in addition to programme content. Media participation is, for instance, often related to consumers' technological possibilities, such as seemingly small changes like the introduction of the remote control versus having to get up to change the channel, and institutional structure itself is an important factor in media accessibility. In answering the question of why *P4 i P1* was produced as accessible radio, I will therefore begin with a look at the programme's context, the institutional setting it was produced in and its history.

*P4 i P1* came to be in the Danish media landscape in 1973, which was then monopolized by a public service broadcaster called the Danish Broadcasting Corporation, or DR. Listeners had access to three radio channels: P1, P2 and P3 (a newcomer created in 1963), as well as one television channel called Danmarks Radio. P1 was the talk radio channel with a mostly adult audience, focusing on news, interviews and reportages. P2 was the culture channel, dedicated to classical music and opera, as well as jazz. Matters of cultural interest were also covered. P3 was the youthful newcomer in this context. It arrived as a response to the termination of the popular offshore pirate radio station Mercur, which focused on broadcasting popular music, and included commercials. Inspired by Voice of America and Radio Luxembourg, it was broadcast from a ship in Oresund, taking advantage of the fact that radio broadcasting in international waters was a legal grey area. Mercur existed between 1958 and 1962 and was shut down after a law was passed in the Danish parliament that specifically forbade being an accessory to the making of a Radio Mercur broadcast (Nørgaard, 2003).

In reality, the public service institution absorbed much of the pirate station. When the music and youth-oriented radio channel P3 was launched the year after, several DJs from Radio Mercur were

imported to DR (Nørgaard, 2003, p. 237). The style of music on public service radio, which had largely resisted playing pop music, now included contemporary popular music genres like pop, beat, folk and rock n' roll.

The Head of the B&U Department, Mogens Vemmer<sup>9</sup>, recalls that the creation of *P4 i P1* was another attempt to appeal to young listeners because of competition from such foreign popular music channels as Radio Luxemburg (Vemmer, 2006, pp. 166-167). The existence of Radio Mercur and Radio Luxemburg thus did more than shift the music genres played on air; they pushed DR to rethink the way in which the youth audience was addressed, preparing the public service provider for the necessity of a new way of addressing its younger audience, from which *P4 i P1* followed.

### ***P4's* frame: The B&U Department**

Besides factors such as pirate radios and the launch of a third radio channel, another important part of *P4 i P1's* formation was its institutional frame and conception in the B&U Department at DR, which produced both TV and radio. I will discuss the B&U Department here before turning to the conceptualisation of *P4 i P1* within it.

B&U was established in 1968, and in many ways, the new department would prove to be a reflection of the political climate of the 1960s and 1970s. As we learn from Peter Duelund's history of cultural policies in Denmark (1995), the transition from the 'democratisation of culture' to a 'cultural democracy' took place between the 1960s and the 1970s. It was a transition from a perspective in which education or

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<sup>9</sup> In the following, Vemmer's memoirs are used as a central source of the early development of the B&U Department. This use of non-academic sources such as these memoirs, or those of former DR General Director Christian Nissen, reflects a lack of academic sources on the matter. To attend to the potentially biased and anecdotal character of this publication, I have emphasised information from Vemmer that is supported by documents from his private archive and reproduced in the memoirs.

information was central to cultural policy, to one in which the people's participation in culture was essential. As I will argue in the following paragraphs, a similar democratic, emancipatory attitude characterised the B&U Department.

For an understanding of B&U, a key figure is Mogens Vemmer, who was head of the department for almost 40 years, from 1968 until 2000. He was, like many of his co-workers in the new B&U Department, a teacher by education. In his memoirs, Vemmer describes the department's leadership in the first three to four years as collective and employing a maximalist, democratic form of decision-making: The permanent staff would vote on every decision with a show of hands, and this collective leadership also included voting yes or no to both internal and external programme suggestions (2006, p. 98).

The collective leadership approach paints a picture of the internal structure of the department, which of course also manifested itself in its media productions: In the first few years of the B&U Department's life, intense work was done to establish its purpose and approach to its audience. One early result of this work, which provides an illustrative example of the department's attitude, is a document from 1972 that has had more than a passing significance in the department's history. According to Vemmer, the document continued to shape the B&U Department's programming strategy for 30 years:

We marked one paper "confidential" so as not to get in trouble with Radiorådet [the Radio Council].<sup>4</sup> (...) with very few changes, it has followed us for 30 years. (...) we held our tongue to the outside, but internally, we demanded that any idea for a programme covered at least one of the mission formulations.  
(2006, p. 162, my translation)

Although Vemmer here in a very interesting manner displays the significance of DR's Radio Council, we must return to this part of DR's organisation later and instead focus on the document depicted in

Vemmer's memoirs. It consists of a one-page strategy paper describing the B&U Department's main task, which was 'to produce programmes that meet children and youth's need for versatile information and musical experiences adapted to the ages 3-18 years' (2006, p. 163, my translation).

After this introduction, the document lists eight focus areas (Vemmer mentions that each programme had to be oriented toward at least one of these). To give an impression of the common philosophy reflected by those eight focus areas, 'education' is not mentioned. Rather, formulations such as 'demonstrating all people's equal worth, but unequal conditions' and 'sharpening children's ability to perceive and estimate all factors of influence and means of communication' (my translations) shape the department's profile. Together, these eight foci describe a department whose values were characteristic of their time: The progressive ideology was focused on emancipation and equality rather than a more paternalistic or conservative focus on unilaterally providing certain information and values.

Thus, the B&U Department's productions were guided by a critical stance toward the media in general and a view of children as creative, independent and intellectually capable of understanding almost everything as long as it was explained properly. Difficult issues like racism were, therefore, integrated into drama productions for children and, to mention an example, an effort was made to explain the rationale behind terror organisations such as the German RAF to Danish radio's youngest listeners (Vemmer, 2006).

In 1972, Vemmer and Erik Rasmussen revised B&U's programming strategy, specifically focusing on better targeting the older part of their children and youth audience. An internal document describing this strategy from that year, found in the National Archives, shows how this new conceptualisation of youth programmes paved the way for *P4 i P1*:

Ungdomsudsendelser kan naturligt inddeles i tre hovedgrupper:

1. Udsendelser om emner, der ikke tilgodeses i de svrige afdelingers programtilbud:
  - a. uddannelse (erhvervsvejledning)
  - b. ungen boligmuligheder
  - c. forhold til forældre (voksenverden)
  - d. identifikation - kæmperater - kærlighed - forelskelse - samliv - frygt - angst
  - e. graviditet - prævention - abort - køns sygdomme
  - f. aftjening af værnepligt
  - g. stoffer (bl.a. alkohol)
  - h. forbrugervejledning - herunder kommerciel udnyttelse af unge
  - i. fritid
2. Udsendelser hvor unge (grupper og enkeltpersoner) kommunikerer til andre unge
3. Udsendelser der portrætterer unge (grupper eller enkeltpersoner) henvendt til unge og voksne

Udsendelser fra gruppe 1 (specialelever til unge) hører naturligt hjemme før eller efter det normale aftenprogram - bl.a. for ikke unødigt at "irritere" familieseseren. I øjeblikket lørdag eftermiddag.

Udsendelser fra gruppe 2 (unge til unge) vil forsøgsmessigt blive placeret hver anden tirsdag 18.20-19.00 - direkte udsendelse.

Udsendelser fra gruppe 3 (om unge for voksne) placeres i det normale aftenprogram - i øjeblikket 1-2 gange månedlig.

Udsendelser fra gruppe 1 og 2 foreslås i en 2 årig forsøgsperiode blandet og samlet i store flader (ungdommens radio) gerne hver dag 2-4 timer, men mere realistisk: hele søndag aften.

Udsendelser fra gruppe 3 placeres i det "normale" radioprogram.

Børne- og ungdomsafdelingen, 72.05.19

Erik Rasmussen/Hans...

Photo 3: Photocopy of internal document from B&U, The National Archives

A translation of the list at the top of the page follows:

Youth programmes can be naturally divided into three parts:

1. Programmes about topics that are not covered by the other departments' programme offers:
  - a. Education (educational guidance)
  - b. Youth housing opportunities
  - c. Relationship with parents (adult world)
  - d. Identification – buddies – love – being in love – living together – fear – angst
  - e. Pregnancy – contraception – abortion – STDs
  - f. Serving military duty
  - g. Drugs (among others alcohol)
  - h. Consumer guidance – including commercial exploitation of youth
  - i. Leisure time
2. Programmes where the youth (individuals or groups) communicate to other young people
3. Programmes that portray the youth (individuals or groups) aimed at youth and adults

The topics that are typically 'not covered' in the list clearly reflect a wish to address the 'real issues' of all social groups of B&U's older target group in 1972. Many of them represent an exceptionally liberal and open-minded approach to youth media content: Abortion was not at this time legal in Denmark, but would become so the year after, which also reflects the progressive nature of the topics Vemmer and Rasmussen suggested for these new youth-oriented broadcasts. In this position, they were undoubtedly in accord with most of B&U's notoriously liberal programme staff. One example is Tine Bryld's public advocacy for the legalisation of abortion, after she herself had one illegally in 1960 (Bryld had, in 1972, just started hosting *Tværs*, which would be part of *P4 i P1* the year after).

Returning to the photocopied document, on the lower

part of the page, five suggestions describe how DR might place these parts of youth radio in the programming schedule. For the radio, Vemmer and Rasmussen suggested placing programmes that fell under group number three in the regular radio schedule. Of special interest here is the second-last suggestion, number two, which reads:

Broadcasts from group one and two [topics a. through i. and youth communication to the youth] are suggested in a two-year trial period to be mixed and grouped in large blocks (the radio of the youth) ideally every day for 2-4 hours, but more realistically the whole of Sunday evening.

The quote above represents the first official description of *P4 i P1* I have been able to localise. In a revolutionising recommendation, Vemmer and Rasmussen proposed placing the programmes from groups 1 and 2 together in large blocks, ideally, each day for two to four hours, but more realistically, all Sunday night for a trial period of two years.

Vemmer and Rasmussen's concept imagined radio in blocks (called 'blokradio' in Danish, Jauert, 2010, p. 448), in which there was a flow between programmes because they appealed to the same listeners. This was opposite how radio programming in the Danish Broadcasting Corporation was usually planned: without any structuring principle, so a programme on gardening could be followed by a programme for small children. DR would mostly continue this approach to scheduling until the break with monopoly and competition ensuing from the introduction of local radio channels in 1983 (Jauert, 2010).

We find here also an explanation for the programme's name. *P4 i P1*, meaning 'Programme 4 in Programme 1', displays a desire to create a space – perhaps even a whole radio channel – exclusively for the youth that would be equal to its adult counterpart. The programme was, however, initially called *P4 i P2*' since it spent in its first years, the trial period in the quote mentioned above, on DR radio's Channel 2, P2. As was mentioned earlier, out of the three radio

channels at the time, P2 on Danish radio was (and is) a radio station focusing on high culture and music. P2's offerings, like classical music and opera, were considered refined. The station mostly appealed to an adult audience, whereas the youth at the time listened to contemporary music on P3.

In the early 1970s, many of the programme's staff who would become reporters at *P4 i P2* worked at a programme on the P3 channel called '*Ungdomsredaktionen*', or '*The Youth Editorial*', which would later become a segment in *P4 i P2*. For my thesis, I interviewed Stefan Samsøe-Petersen in November 2007; Samsøe-Petersen was one of *Ungdomsredaktionen*'s and later *P4 i P1*'s original programme staff<sup>10</sup>. Samsøe-Petersen remembered how *Ungdomsredaktionen*'s serious and often-provoking take on youth radio, which in 1971 included reading a Pentagon report aloud in its entirety on air, was ill fitted to the more easy-going tone at P3. Moving this group to the P2 channel as the new *P4 i P2* programme was being launched could be interpreted as an effort to place some of the more liberal and uncompromising forces among B&U's staff in a less obvious position on the programme schedule. Samsøe-Petersen recalled how the newly minted *P4 i P2* editorial employees had their doubts about the project because they were reluctant to give up their previous positions, but it was seen as the price of getting a whole evening for the youth. Although Sunday evening on their audience's parents' channel was far from prime time, the placement on P2 gave *P4 i P2*'s team a chance to dedicate three hours to a young audience as well as a more natural setting for a new kind of serious youth radio.

To expand the description I provide of *P4 i P1* in the articles, the programme's editorial staff outlined their new youth radio programme in line with the values of the overall B&U Department. As an internal document from the B&U Department stated, their target group (14- to 18-year-olds) was naturally rebellious toward authority.

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<sup>10</sup> Samsøe-Petersen, in an interview with Mette Simonsen Abildgaard. Abildgaard, M. C. B. (2008). *Du lytter til dig selv – en undersøgelse af offentlighed og modstand i ungdomsradioprogrammet P4*. University of Copenhagen, Copenhagen.



The pedagogy behind the department's programmes should, therefore, be oriented toward giving the youth materials for 'self-development and self-education' (*Radiorådets temadebat* 1975 p. 2, my translation) while placing the audience's problems in a broader societal context. Along with this ideology of solidarity and emancipation from authority was a focus on empowering listeners from working-class backgrounds: 'The programmes should not only be directed at young people who are in a traditional sense school-interested, but also give the perhaps less outspoken part of the youth outside the school system adequate room in the programmes' (*Radiorådets temadebat* 1975 p. 3, my translation).

As has been noted several times in the dissertation's articles, *P4 i P1*'s programme staff also took inspiration from critical left-wing media texts, such as H.M. Enzensberger's 'Constituents for a Theory of the Media'<sup>11</sup>. This theoretical inspiration, the pre-existing media landscape, the programme's institutional context and the highly politicised climate of the 1960s and 1970s together stand as the most important factors in the creation of *P4 i P1* as an accessible youth radio programme in 1973.

The emancipatory ideals in *P4 i P1* in the 1970s did not solely consist of including listeners through various communication technologies in programmes that were accessible, and even in some respects, participatory (see 'Constituents of a hit parade' for a study of participation in *Det elektriske barometer*). Many of the programme's segments contained an element of accessibility as they invited the youth to access *P4 i P1* in different ways: *P4* reporters travelling around the country in a bus, interviewing and portraying the local youth in, for instance, *Sommerferiebussen*; inviting amateur musicians from less popular genres (i.e. not beat music) to send in their tapes to *Multimusik*; and in a more general sense by including the young person's perspective through interviews or studio guests in most segments.

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<sup>11</sup> Samsøe-Petersen, in an interview with Mette Simonsen Abildgaard, *ibid*.

## Perspective and discussion

This contextualisation of *P4 i P1* as accessible radio has here focused on the lower, departmental level of the programme's institutional frame as well as the programme's early history. This approach omits important factors, and had there been room or time to provide a complete institutional contextualisation of *P4 i P1* as accessible radio, I would have included many others. For instance, as mentioned in the previous chapter, one obstacle has been the lack of available documents from the B&U Department after the 1970s, which means that I cannot provide an institutionally oriented history of *P4 i P1* after its early years. I will, therefore, refer the reader to the dissertation's articles for analyses of the programme's later development based on analyses of programme content.

Another omission here is that the overall structure of DR as led by the Radio Council has played an important role in *P4 i P1*'s history and has undoubtedly shaped the content and development of the programme. For example, in the mid- and late 1970s, conservative politicians and opinion-makers heavily criticised *P4 i P1* for harbouring liberal and even extremist programme staff members who became known in the media as 'red mercenaries' (*røde lejesvende*). From his seat in the Radio Council, the conservative politician Erhard Jacobsen accused these members of the programme staff, and soon the entire B&U Department, of spreading one-sided, left-wing propaganda to the Danish youth. The affair reached a high point (or low, depending on one's perspective) in 1976, when a civil servant trial was instigated against Mogens Vemmer as head of B&U. In the trial, he was accused of providing incorrect information about *P4 i P1*'s broadcasts to the Radio Council. Vemmer was acquitted of misinformation on all accounts, but both Vemmer in his memoirs (Vemmer, 2006, pp. 170, 177) and my programme staff informants remark that the affair had an influence on their work, in that they became more careful and self-critical.

In the 1980s, the radio council was replaced by a board of directors to ensure greater distance between the board and daily

programming, in part because of what was seen as the Radio Council's over-involvement in the individual programmes produced by the 'red mercenaries', as remembered by DR's former General Director Christian Nissen (2007, p. 195). The changing political landscape and shifting cultural policies of the 1960s, 1970s, 1980s and 1990s have only been mentioned briefly here. However, they have undoubtedly profoundly shaped the content produced in the institution of DR, for example, through the politically appointed chairs in the Radio Council and Board of Directors.

The preceding part of this theme on accessibility covers the programme's context in the 1970s, but of course, an important factor in the programme's shape in 1973 can be found in its media pre-history. As mentioned, *P4 i P1* was introduced shortly after the formation of the B&U Department. The department's conception with Mogens Vemmer at the helm in 1968 has, consequently, been the logical point of departure for my study of *P4 i P1*'s accessible formats. Although the inclusion of such a range of accessible formats in *P4 i P1* is indeed clearly related to the participatory attitudes of the 1960s and 1970s, radio broadcasts for children and youth have been a part of the Danish Broadcasting Corporation's programme schedule since its earliest days<sup>12</sup>. Future studies of the earliest programmes for children and youth might therefore prove instructive to our understanding of the

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<sup>12</sup> A main figure in the earliest broadcasts for children and youth was Jens Frederik Lawaetz. From 1926 onward, Lawaetz was involved in producing and coordinating programmes for children and the youth at *Statsradiofonien*. In this early period, according to Lawaetz, children- and youth-oriented programmes were broadcast on Tuesday evening and every other Saturday night. Regarding *P4 i P1*, Saturday evenings are especially interesting, as they were called '*Ung aften*'/ 'young evening'. They included, for example, an orchestra and choir performing popular music. Although no detailed record of the tone and content of these broadcasts exists, in name, the programme is a surprisingly early direct ancestor of *P4*'s slogan '*en aften for unge*'/ 'an evening for the young'. *Samtale mellem Jens Frederik Lawaetz og Ib Wiedemann/ Conversation between Jens Frederik Lawaetz and Ib Wiedemann*. (1979). [Unpublished research interview]. Vejle, Solgavehjemmet.

more recent past in the history of accessible programme content in DR<sup>13</sup>.

Another important factor omitted in this chapter is technology as a changing condition of possibility for media accessibility. Throughout this dissertation, technology is regarded as profoundly non-neutral, meaning that an accessible radio programme will be not only be a product of its radio professionals, institutional frame or audience, but it is also co-created by the technology that connects listener with broadcaster.

For instance, in the study on *P4 pop*, it is significant that the ATTR was an unfamiliar technology when it was introduced in *P4 i P1* in 1973. The article follows the changes in listeners' and radio hosts' use of the ATTR that occur during 24 years, showing how an initially limited conception of the technology's purpose and use is replaced by a view of the ATTR as a technology with many possible social uses. However, the central question that arises in the article is how to explain these developments in the use of the ATTR. Do the uses reflect the technology's own qualities or its users' dispositions, and could the development equally have gone the opposite direction from the rise of its confessional use?

In the article about *Det elektriske barometer*, the character of the letter as a tool for the mediated contact between listener and radio is a key concern. We observe that the letter is a culturally well-established and legally protected tool for containing written material, but seeing that

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<sup>13</sup> Spot tests of the written radio guides in the larm.fm archive did indeed show some interesting genres among the early broadcasts for children. In 1928 on Friday, February 3, between 5 and 6 pm, *Børnetime*/'Children's hour' was broadcast. During this programme, the names of the winners of a guessing game contest were read. A new children's guessing game contest was then scheduled for broadcast, followed by two fairy tales. Several other records of this children's guessing game were found, suggesting it was a recurring weekly or bi-weekly event. A second example found in the archive, which is even more remarkable in terms of early experiments with accessible radio, supports this: *Drengenes brevkasse*/'The boys' problem page', where the audience could send letters to the programme. Its first example was found in the digitalised radio guide for 10 February 1930 with the description 'response to questions received' [my translation]. Children were, thus, not just early receivers of radio in Denmark; they were also very early sources of audience-generated content.

*DEB*'s letters were not initially meant to contain sensitive or personal material, the letter was probably chosen for the ease with which written material can be used for voting and counting votes. But how should we understand, then, why the use of the letter in the segment developed from being associated strictly with voting to the personal accounts of later years?

Similarly, in the article about *Tvars*, the telephone's changing placement in the home is presented as a vital component of the segment's accessibility. However, the analysis of the 'conversation with obstacles' also uncovered how opposing perceptions of the telephone was an important factor in listeners' negotiations with their parents about what they could discuss when calling the segment.

All of the above observations and questions about the changing uses and perceptions of technology in *P4 i P1* relate to how one views technology regarding agency and ontological status. In the forthcoming chapter on materiality, therefore, I will discuss how those questions are approached in to those parts of the dissertation's theoretical framework that relate to the philosophy of technology: phenomenology, post-phenomenology and actor-network theory.

## Materiality

*Technology is therefore no mere means. Technology is a way of revealing*  
(Heidegger, 2009, p. 12).

When is technology<sup>14</sup> most elusive? As the ‘deep technological texture’ (Ihde, 1993) of our lifeworld, seamlessly integrated into everyday life as the morning radio, the bike we ride to work and the computer we use when getting there. Most of these technologies, we have known and used for decades; our routines involve using everyday technologies in much the same way as we have since their introduction into our lives. Because of this elusive transparency of everyday technologies and the difficulty of monitoring small changes occurring over long periods of time, very few studies are devoted to changes in the use of ‘mature’ modern technologies.

Because this dissertation is concerned with the use and development of technology over many years, technology’s ontological status and agency are central issues. Those questions in themselves could easily take up a dissertation, let alone a peer-reviewed article, and have mostly been briefly treated in the introductory and theoretical parts of this dissertation’s three articles. In this part of the summary, therefore, I address the theme of materiality as it has featured in the analysis of the material from *P4 i P1* and expand on my appropriation of the theoretical fields and concepts that have informed these analyses.

One of the central theoretical questions in this dissertation is the relationship between humans and technology. The incremental process in which our perception and use of technologies change would seem to

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<sup>14</sup> I use here, as in the articles, ‘technology’ and ‘materiality’ interchangeably. However, while their differences do not come up in relation to my studies of radio, I do define ‘technology’ differently from ‘materiality’, which is used very broadly as matter in the physical world. For the more narrow technological concept, I follow Ihde’s definition and consider it to be an artefact or a group of artefacts, e.g. material culture that is related to human praxis (including use-technics) or actions (Ihde, D. (1993). *Postphenomenology: Essays in the Postmodern Context*. Evanston, IL: Northwestern University Press.)

suggest that perception is key and materialities have no ‘essence’ because they are socially constructed in the sense of the SCOT theory (Social Construction of Technology). But how does materiality as pure social construction explain the relatively stable use of the materialities that surround us? Everyone who falls from the 20th floor dies, and one can hardly refute the material reality of furniture: ‘This (bang!) is real. This (bang!) is no mere social construction’ (Edwards, Ashmore, & Potter, 1995, p. 29). This is the so-called ‘death and furniture argument’, which is classically raised against constructivist theories like SCOT. In my work with the material from *P4 i P1*, I do not offer an extreme social constructivist view in which technologies only exist through our perception of them, but neither do I think we can have any access to their ‘reality’.

In this navigation between social constructivism and deterministic essentialism, Heidegger’s philosophy of technology has functioned as a foundation. His assertion that ‘technology is a way of revealing’ became an inspiration to see radio in a perspective in which everyday engagement with the telephone, the letter and the ATTR were keys to understanding *P4 i P1* and its development. Through his own work and his influence on philosophers like Don Ihde and the media historian Paddy Scannell, Heidegger’s approach to technology has even shaped which questions I thought to ask throughout this dissertation. In this way, Heidegger’s philosophy of technology has been my condition of possibility for studying *P4 i P1*. However, more recent philosophical approaches to materiality, such as Moser and Law’s actor-network concept of ‘passage’ and the field of postphenomenology, figure much more prominently in the dissertation’s articles due to the word limits of journals and the consequent requisite focus and conciseness, which leaves little room for theoretical contextualisation.

Many of the crucial approaches to radio in the articles, such as focusing on ‘broken’ technologies or conversations gone wrong, represents a post-Heideggerian or critical appropriation, as seen in postphenomenology. In order for the reader to have the necessary background knowledge for this dissertation’s analytical treatment of

technology relationships, some remarks on Heidegger and the critique and renewal of his philosophy offered by postphenomenology will therefore be provided in what follows.

## Heidegger

The basis for my reading of Heidegger's phenomenology is his main work, the classic *Being and Time* (*Sein und Zeit*) from 1927 and the short text 'The Question Concerning Technology' (*Die Frage nach der Technik*) originally published in 1954 as part of a collection of essays. What makes Heidegger such a central figure in my approach to radio is his assertion, as presented in this theme's introductory quote, that the word is revealed to us through technology. This argument marks the difference from Heidegger's existential approach to Husserl's transcendental phenomenology, in that we cannot fully comprehend the world's phenomena through thought, but through interacting with the things of the world.

Although only Heidegger's more recent text has technology as its explicit focus, it is an implicit concern in *Being and Time*. As Borgmann argues, *Being and Time* anticipates Heidegger's philosophy of technology first by noting the effects of early mass media. Through magazines, radios and movies, for instance, the world becomes mediated, and we are restless or distracted, part of an anonymous crowd in which we adhere to 'talk' (*Das Gerede*) – what one would call 'public opinion' (Borgmann, 2005, p. 422).

Second and most importantly here, the concept of 'tools'<sup>15</sup> or (*Zuge*) (Heidegger, 2001, p. 97) plays an essential role in Heidegger's early phenomenology of technology. As we learn in *Being and Time*, there are two basic attitudes toward tools. If we try to gain insight about a tool – such as the favourite example of the hammer – by looking at it or thinking about it, we would never gain any new knowledge of the world.

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<sup>15</sup> The 2001 Macquarrie and Robinson translation of *Being and Time* otherwise used here translates *Zuge* as 'equipment', but I prefer the less specific 'tools'.



However, if we were to engage in a task with the hammer, the tool itself becomes transparent, withdrawn from focus. Heidegger argues that it is through such a *'Vorhandenheit'* attitude (usually translated as 'ready-to-hand'), that the hammer and the surrounding world are revealed. The crucial insight here is that knowledge of the world is based upon such interactions with the things of the world, so our comprehension of reality is dependent on materiality.

If the hammer from our example breaks, however, it just lies there, like so much other stuff. In this *'Zuhandenheit'* relationship (usually translated as 'present-at-hand'), the hammer becomes visible in itself, but for Heidegger, it is no longer useful as a way of comprehending the world. I will return to how this Heideggerian valorisation of *Zuhandenheit* versus *Vorhandenheit* is later taken up and reassessed in postphenomenology.

As Heidegger tells us in the much later text 'The Question Concerning Technology', technology (from the Greek word *'technē'*) refers to craftsmanship, crafts and the arts, but *technē* is not merely the conventional means to an end. It is a kind of knowing. In 'The Question Concerning Technology', Heidegger in this way takes up his earlier, more cursory analysis of tools in *Being and Time* as well as treats how technology reveals (*'alētheia'*, also meaning 'truth' in Greek)<sup>16</sup> the world to us in more detail (Heidegger, 2009, p. 12). However, the world as revealed through technology happens as a certain kind of revealing in which the truth is presented as *'Bestand'* (translated as 'standing reserve' or 'resource'); the world is a resource for us to harvest and store. Modern technology is different in the way it reveals the world to us from that of older times, according to Heidegger. Many of Heidegger's examples centre on the exploitation of nature, for instance, the mechanisation of modern farming, to show how the essence of technology is this storing of resources embodied by *Bestand*.

The essence of technology is shown to be *'Gestell'* (often

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<sup>16</sup> English terms from the translation in Heidegger, M. (2009). *The Question Concerning Technology* (W. Lovitt, Trans.). In D. M. Kaplan (Ed.), *Readings in the Philosophy of Technology* (pp. 9-24). Lanham, MD: Rowman & Littlefield.

translated as ‘enframing’ or ‘framework’), and through this concept, Heidegger addresses the way in which we have become used to perceiving the world in a ‘scientific’ way, in which only the quantifiable counts. Here, Heidegger’s critique of science’s claim of objective truth becomes similar to Husserl’s attack on ‘objective science’ in *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy* (1989, orig. 1936). However, while Husserl’s critique led to him instating phenomenology as a new science of phenomena, Heidegger’s warning in ‘The Question Concerning Technology’ has to do with the consequences of technology’s way of revealing the world as a resource, which may ultimately result in thinking about humanity itself as a raw material.

It is close at hand to argue, like Ihde in *Heidegger's Technologies* (2010, p. 21), that Heidegger’s warning that we may end up thinking of humanity as raw material also encompasses the concentration camp. Considering this conception of technology, it is difficult to read the text without considering it as a product of its time and author: Heidegger had gone through World War II as a sympathiser and member of the Nazi Party, had only been readmitted to Freiburg University as a teacher three years before publishing the text and would never regain his philosophy chair. He was writing from a perspective in which, in view of technology’s application through the 20th century, it seemed there was cause for concern:

The threat to man does not come in the first instance from the potentially lethal machines and apparatus of technology. The actual threat has already afflicted man in its essence. The rule of Enframing threatens man with the possibility that it could be denied to him to enter into a more original revealing and hence to experience the call of a more primal truth. (Heidegger, 2009, p. 20)

In this quote from ‘The Question Concerning Technology’, Heidegger is presenting what sounds like a deterministic interpretation of

technology's historical direction, which has already 'afflicted humanity in its essence' and will possibly keep us from seeing the alternatives to technology's revealing of the world as a standing reserve.

When approached in its entirety, Heidegger's account of technology is not, however, necessarily deterministic, since a concept that also lies in Gestell or framework is that of giving, in the sense that the world is given to us and gives itself to us. While Gestell represents the grave danger of seeing the world from an instrumental and exploitative perspective, it therefore also suggests an opportunity with which we can see ourselves as part of the way the world is revealed and given. Humanity must realise that our capacity to manipulate nature entails the responsibility to 'watch over' nature. Thus, there is room within technology's Gestell for humanity to realise through what framework we are viewing the world and change course. Heidegger urges us to work toward gaining such a 'free relation to technology'.

### **Re-evaluating Heidegger**

In 'A Companion to Heidegger' in 2005, Borgmann notes that, as a philosopher of technology, Heidegger has been slowly and awkwardly received in the Anglo-American world, while he has had a significant influence on the American philosophy of technology (p. 431). However, in recent years, a growing body of literature has debated Heidegger's significance as a philosopher of technology in contemporary STS. The field's prominent figure Bruno Latour does not claim inspiration from Heidegger – quite the opposite, as Latour explicitly disassociates himself from Heidegger (Latour, 1999, p. 176) – but a series of articles in the STS journal *Social Studies of Science* have argued that, nevertheless, there is a very similar way of thinking in Latour and Heidegger's understanding of technology (Kochan, 2010; Riis, 2008; Schiölin, 2012). Equally, in 'Heidegger's influence on posthumanism: The destruction of metaphysics, technology and the overcoming of anthropocentrism' (2014), Rae argues that posthumanism is influenced by Heidegger's destruction of metaphysics in *Being and Time* and that it shares

similarities with Heidegger's account of technology. I will not discuss the details of these debates here, but rather note that they signal a growing consensus that Heidegger's philosophy of technology must be considered against the current renewed interest in 'things' as seen in the 'material turn' (Bennett & Joyce, 2010; Coole, Frost, & Coole, 2010) in the social sciences, cultural studies and media studies.

Two such Heideggerian approaches have figured prominently in this dissertation. In my studies on *P4 pop* and *Det elektriske barometer*, the media historian Paddy Scannell's concepts of 'dailiness' and 'care structures' (Scannell, 1996, 2014) provide a frame in which to understand the function of the passing of time in the weekly *P4 i P1*, as well as an alternative perspective to a critical theory interpretation (represented by Carpentier's concept of participation) of *Det elektriske barometer's* format and purpose. However, adhering to the chapter's focus on materiality, I will concentrate here on the second approach, as Scannell's re-thinking of Heidegger mostly refrains from addressing the philosopher's later texts on technology emphasised here (Scannell, 2014, p. xiii). In the following, therefore, I will discuss postphenomenology's critical appropriation of Heidegger's philosophy of technology and the terminology and logic that plays a key role especially in my analyses of *P4 pop*.

Postphenomenology is a philosophical field that is often considered part of STS. It formed around the American philosopher Don Ihde and the 'technoscience research seminar' he founded at Stony Brook University, though another more recent group has formed around the Dutch philosopher Peter-Paul Verbeek in Twente. Initially, Ihde termed his phenomenological approach 'nonfoundational phenomenology' and first used the more memorable term 'postphenomenology' in his book *Postphenomenology: Essays in the Postmodern Context* (1993). The term 'post' deliberately links the field to postmodernity and poststructuralism and those isms' shared notion of the world as continually socially constructed, rather than (Husserlian) transcendental phenomenology's understanding of the epoché as enabling us to access the 'real' properties of phenomena.

There are two important precursors to postphenomenology, as presented by Ihde. One is the classical or ‘first-wave’ continental phenomenologies of, most prominently, Husserl, Heidegger and Merleau-Ponty. The other is the philosophical school of American pragmatism and thinkers such as (William) James, Dewey and C.S. Pierce (Ihde, 1993). What Ihde takes from pragmatism is the notion that everything we hold as true about the world is potentially temporary and open for improvement as well as that improvement coming through inductive, ‘practical’ and theoretical investigation into the world. In that way, there is a likeness between pragmatism and Husserl’s phenomenological call ‘to the things themselves’, but it is also from pragmatism that the nonfoundational and anti-essential thoughts in Ihde’s phenomenology stem.

Turning now to the ways in which postphenomenology is different from its ancestry, its so-called ‘interrelational ontology’ represents a material turn within phenomenology. This entails an understanding of the human experience as ontologically related to a world. In this relational process, both are transformed:

In the context of [Husserl’s] *Ideas*, and *Cartesian Meditations*, this is the famous “consciousness of \_\_\_\_\_,” (...) I contend that the inclusion of technologies introduces something quite different into this relationality. Technologies can be the means by which “consciousness itself” is *mediated*. Technologies may occupy the “of” and not just be some object domain. (Ihde, 2009, p. 23)

In this way, Ihde proposes an adjustment of the Husserlian notion of intentionality in which consciousness itself may be mediated through technology.

Having thus presented postphenomenology in broad strokes, two of Ihde’s re-evaluations of Heidegger have become central to my studies of radio. The first starts with Heidegger’s assumption that there is a long-lost time in which we had another relation to the world

through technology, a necessary foundation of the idea that technology today has a certain way of revealing the world to us (Gestell). Ihde is very unsympathetic to this notion of technology's historical direction, since it shows what he calls 'romanticism' in Heidegger's thought. In *Heidegger's Technologies* (2010), therefore, Ihde illustratively points to one of Heidegger's examples, that of the Greek temple described in 'The origin of the work of art' (Heidegger, 1993, orig. 1950) that harmonically 'gathers' a world. Ihde contrasts Heidegger's poetic description with the fact that the construction of these temples in ancient times laid waste to vast resources in large areas of Greece, similar to Heidegger's description of our view of the world as a resource in modern times.

In his own work, Ihde proposes a less linear theory of the way our perceptions of technology develop, centred on the notion of 'multistability'. This notion has gained increasing significance in Ihde's thought over time, illustrated by his choice to devote whole chapters, as well as the subtitle, of his 2012 revised and expanded second edition of *Experimental Phenomenology* (first edition 1977) to multistability. It seems especially fitting that the concept should become a key term in my work with *P4 i P1*, as Ihde's use of multistability is inspired by Nobel prize winner Georg von Békésy's work on the auditory perception of early broadcast radio:

Some heard the music as if it were in front of them; others heard the music in a 180-degree reversal, as if it were coming from in back of them; and still others heard it "in the middle of their heads." Here were three different possible stabilities. (Ihde, 2007, p. 187)

From Békésy's work with auditory-perceptual multistability, Ihde takes the fact that Békésy could teach listeners in those experiments to 'fix' their perception of sound in one of the mentioned constellations. Ihde then moves from this experiment to a more general concept of multistability as 'perceptual variations that exceed the usually noted bivariational ambiguities' (2012, p. 145). Thus, multistability denotes that

we can vary our perception of, for instance, the ambiguous examples used in Gestalt psychology, such as the psychologist Edgar Rubin's 'figure-ground vase'<sup>17</sup>, beyond bi-stable perceptual options. There can be a third, in which the vase is seen as an hourglass, or fourth, or n'th perceptual variation – in short, multiple variations, which all belong to the structure of possibility demonstrated by these phenomena.

Although Ihde's concept might initially seem restricted and technical, it is important to understand the wide implications of multistability to his phenomenology, as every phenomenon we encounter holds this possibility of being perceived in multiple ways: Our world is multistable, meaning that there is no 'unitary, determined single destiny to technological development', but rather a 'multistable and diverse and ambiguous set of multiple directions whose ends are probably not predicable any more than any historical-cultural development can be adequately predicted' (Ihde, 1993, p. 34). Multistability is, thus, not only a re-evaluation of Heidegger's linear conception of technology's development, but also a stark contrast to Husserl's search for 'essence' through eidetic reduction.

Multistability is instrumental to my interpretation of radio's development, but it is only discussed directly in 'Sometimes I think it is hell to be a girl'. Here, it is a foundational concept discussed at length in the article's introduction, as it 'encompasses discrepancies or contradictory perceptions and accentuates the non-finite nature of our relationship with technology. It is therefore valuable in analyses of the (often non-linear) process of the social uptake of technology' (p. 94).

In 'A telephone between us', my interpretation of sociomateriality, which I present as different from domestication theory's notion of the social shaping of technology, describes a multistable approach: 'The subjectivity of humans and the objectivity of materiality are perceived as inexorably related and co-shaped. Their relationship may take on a multiplicity of stable forms, but it is continuously changing' (M. S. Abildgaard, submitted, p. 122). The

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<sup>17</sup> It is traditionally perceived as two male profiles facing each other, or a vase, if one focuses on the space between the profiles.

definition is informed by multistability, but made without stating the term, to avoid a lengthy introduction of postphenomenology, because it was not the study's primary approach.

Further, Ihde reworks Heidegger's distinction between 'Zuhandenheit' and 'Vorhandenheit' to provide a conceptualisation of human-technology relations that includes a wider range, and this broadening of possible relations is an important inspiration to the way I have studied radio's technology. Ihde criticises the Heideggerian notions for drawing a too-limited picture of our actual relationships with technology, most significantly the idea that relating to a technology as such (i.e. as non-transparent) necessarily happens in a negative Zuhandenheit relation when the technology is broken:

I claim that here lies an early clue to a certain negativity which pervades the Heideggerian corpus and which blinds the analysis both to a possible appreciation of human-technology relations other than embodiment ones and to the features which, in fact, unite modern technologies to traditional ones. In *Being and Time* it is hard to conceive of a positive relation *to* a piece of equipment, a technology, other than as that *through which* Dasein experiences its environment either in *embodiment* or with *transparent* referentiality. (Ihde, 1993, p. 108, emphasis added)

As Ihde describes here, Heidegger is focused solely on the way we relate to technology in a negatively presented 'transparent' or a positively 'embodied' relationship, the latter being the above-described Vorhandenheit in which we experience the world through using a tool. Ihde formalises this embodied or Vorhandenheit relation in *Postphenomenology and Technoscience* (2009, p. 42), as:

(human-technology) —> world

The formula illustrates how technologies such as eyeglasses can become



extensions of us to the point when they are no longer noticed, all the while allowing us to perceive the world through this relation. From this claim, Ihde develops a continuum of technology relations in which we relate to technology positively: He supplements an embodied relationship as described by Heidegger or Merleau-Ponty (for instance the famous example of a woman with a tall feather hat that becomes an extension of her body, Merleau-Ponty, 2005, p. 165) with the ‘alterity’ and ‘hermeneutic’ relation. These were formalised in Ihde’s writings (2009, p. 43), as:

$$\begin{array}{l} \text{human} \longrightarrow (\text{technology-world}) \\ \text{human} \longrightarrow \text{technology (world)}^{18} \end{array}$$

The upper hermeneutic relation describes technologies that actively engage one’s more linguistic, meaning-oriented capacities. The world is interpreted through a technology, like when we use a hammer for hammering in an embodied relation, but here it is more analogous to our reading or interpreting actions than to our bodily action. Ihde’s examples are often drawn from instrument readings, such as the interpretation of a body’s state through a thermometer’s display. The world and technology are, therefore, conflated in human perception, as illustrated in the formula above.

The lower alterity relation describes a less referential relation in which we actively engage technologies themselves as quasi-objects or even quasi-others. To describe this alterity relation, Ihde has used both high- and low-tech examples such as a child playing with a spinning top or interacting with a human-like robot. The relationship here is directly between the human and the technology, while the world, as illustrated in the formula, merely forms the background.

Ihde’s rediscovery and re-evaluation of Heidegger plays

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<sup>18</sup> The example here is edited since Ihde’s example relates specifically to a meeting with a robot and, thus, originally reads ‘human  $\longrightarrow$  robot (the environment remains background)’.

many roles in my dissertation. First, Heidegger's necessarily negative connotations for when technology 'comes into view' is challenged in both 'A telephone between us' and 'Constituents of a hit parade' by focusing on precisely these instances when technology no longer functions as intentioned. In both articles, I argue that these situations are actually quite productive, as they disclose technological arrangements that are usually taken for granted:

In 'A telephone between us', I mention that the analysed conversation in *Tvars* was chosen because it was 'broadcast despite severe communicative complications, making it an exemplary case to analyse some otherwise unnoticed aspects of phone-in materiality, which become apparent when break-downs illuminate the genre's taken-for-granted technological arrangements' (p. 125). In 'Constituents of a hit parade', we focus on some letters in which listeners do not find the programme segment's format and use of letters successful:

This opens a different perspective regarding the segment's participatory nature. Here, the very structure of *DEB* is up for critical inquiry in a discussion in which listener and host take an explicit stand (p. 169).

Both cases thus feature the same basic approach, to look at places in which 'business as usual', for one reason or another, is abandoned for a while. In the first example, I borrow the black box notion, as it is often used in actor-network theory, to denote the obscurity that arises from something working successfully, as we then stop thinking about or even notice *how* it works. Black boxing is actually very similar to Heidegger's idea of the transparency of *Vorhandenheit* and involves his criticism of science's claims to objectivity, but their combination in the argument that we could productively study these interruptions is new in a Heideggerian context.

## Re-evaluating Ihde in *P4 pop*

In addition to the articles about *Trærs* and *Det elektriske barometer*, a postphenomenological or post-Heideggerian ontology is also part of my interpretation of *P4 pop*'s ATTR in 'Sometimes I think it is hell to be a girl'. Inspired by Ihde's continuum of technology relations, the article's original purpose was to discover what perceptions of the ATTR could be gathered from the sample's 23 years of messages and comments about it in *P4 pop*.

As initially remarked in this chapter, technology makes up the elusive but deep texture of our everyday life. However, this everyday transparency of technology has been what has made studying the ATTR in *P4 pop* a rich source of changing perceptions of technology in particular. As an unfamiliar technology, the ATTR was noticed and discussed, unlike the telephone and letters, which were more unassuming everyday technologies to *P4 i P1*'s listeners and radio hosts. A thorough analysis of changing perceptions of the ATTR was therefore developed while working on the article about *P4 pop*, but was eventually condensed to focus the article on technology use in the segment.

The article's central claim about radio's multistability is partly based on these changes in technology perceptions, some of which are referenced briefly before the article's conclusion. Here, I note that, taking inspiration from Ihde's Heideggerian analysis of technology relationships, radio listeners' and hosts' relationship with the ATTR takes many different forms: technology as a container for information, as when listeners used the ATTR to summarise their position in a debate; technology as a person, as when callers spoke as if they were addressing a radio host or listener; and examples of technological relationships where the ATTR itself becomes a technological 'other' that is always available, but unable to respond. I conclude that this final relation allows listeners to 'speak of things they feel no person should hear' (p. 114), which became an instrumental inclination of the ATTR that was a substantial element of the rise of confessional radio in *P4 i P1*. In the following, I will here expand on these observations to display

more clearly how Heideggerian and postphenomenological concepts were negotiated and developed in the dissertation:

This examination of technology perceptions in *P4 pop* begins with a quote about the automatic telephone tape recorder from 1975. As we see in the article's analysis of listener use and use instructions, the tape recorder at this point had been part of *P4 pop* for some time, but this is the first instance of a programme host talking about how it is viewed as a technology:

ye::s that was the jingle for P4 pop  
which of course is built on the commentaries  
(.) and record requests  
that have come in on our automatic telephone tape  
recorder .hh  
it listens patiently to everything you say  
but it can't unfortunately give an answer (1.0)  
.h it can seem a little strange to talk to such a dead thing  
but (.) <it seems like a lot of you have gotten used to it>  
.h  
and if you feel like trying (.) then the number is .h  
>zero one (.) ninety-five (.) eighty-two (.) seventy-one<  
1975-05-04

Host Karsten Pharaos's description of the ATTR includes a scepticism that lies in his reference to it as a 'dead thing'. He seems to be speaking to a perceived audience of fellow sceptics, or at least one that will understand his approach, though he can hear that they have 'gotten used to it'. In his perception, the tape recorder is something you can learn to use, but talking to it is not a very comfortable or safe situation. What he focuses on is its lack of ability to talk back, which for him gives it the appearance of being lifeless. Pharaos's analogy between recording technology and 'dead things' also conjures images of recording technology as a sort of unnatural dark magic, since it can 'reanimate' voices from its voodoo-like automated system. According to Pharaos's

representation of the technology, calling an automated recorder is not recommendable, because talking to a dead thing is a strange, disturbing and fruitless endeavour. Following that view, Pharao would also on several occasions recommend that listeners write letters instead, relying on an older, more well-known technology for which he expressed a preference.

Pharao's attitude toward the ATTR is one that I call 'technology-as-dead', since the main metaphor for understanding technology is one of strange lifelessness. Central to this metaphor is subtraction: taking something from the ATTR because of the way it is different from known technologies like the letter or less than the equivalent face-to-face interaction. Listeners also echo Pharao's attitude in the early years of *P4 i P1* with their short messages and reluctance to experiment with the format, as noted in the article. Although messages where listeners hang up in frustration do not figure in the sample and would probably not be broadcast, there is an example of a listener saying that she has taken over for her friend, who 'flipped out' when trying to talk to the ATTR.

But the technology-as-dead view of the ATTR is not representative of the hosts' general attitude toward the ATTR, as it only occurs two times in the sample, both in the first two sample years. Considering that radio hosts usually do not refer to formats in their own programme in negative terms, this is unsurprising. What was by far the most typical approach is one that took a more neutral stance toward technology. Here, another host, Karsten Sommer, rounds off *P4 pop* in 1975:

yes that was both the opinions of the young and old  
<in P4 pop today> .hh  
some probably agree and others probably disagree  
<with what was said> .h  
in any case everyone is welcome to call in  
commentaries to this  
or something completely different

on P4's telephone tape recorder  
>zero one fifty-six thirty-six thirty-seven<  
it is just going over and lifting up the receiver  
(.) and turning the number .hh  
then the tape recorder starts  
1975-11-02

In contrast with Pharaoh's sceptical account of the possibilities in a 'dead' technology, this view presents a much more encouraging account of the automatic telephone recorder. Its automacy is no longer alienating; it now makes it easy to use. You 'just' pick up the phone, and the ATTR will begin recording. Afterward, it then safely and neutrally stores the listeners' messages. In other comments, these messages were said to be 'harvested' by the week's end and presented intact on the segment. Sommer at one point refers to the ATTR as a 'listener box', thereby also likening the ATTR to letter writing and letterboxes, emphasising how the usage of the technologies is similar. His audience is much more familiar with the letter, which was culturally established as a 'safe' technology, as I argue in the article about *Det elektriske barometer*, but it is understood that leaving voice messages is an equally safe and neutral technology.

This second perception of the ATTR can be described as 'technology-as-container', since the container-metaphor is central to its understanding of the technology. It primarily highlights the recorder's capacity for accurately re-representing auditory input. As can be seen from the example above, Sommer's view of the recorder presents it as a neutral container, a time capsule full of, as he expresses in the introductory quote to this summary, 'present-day history'. In this view, what is entered into the ATTR will emerge as it was again; it is a container full of valuable information that can withstand time. The technology-as-container is by far the most common understanding of technology in *P4 pop*, occurring 119 times out of the 156 statements that could be interpreted in terms of technology relationships.

In a Heideggerian perspective, as described above, the habitual occurrences of the neutral stance in technology-as-container are as unsurprising as the rarity of the sceptical technology-as-dead metaphor: The technology-as-container metaphor is part of the perspective any radio host needs to do his or her programme on an everyday basis and establishes the ATTR as one of the unproblematic everyday tools for doing radio. This is because, in Heidegger's terms, the attitudes we have seen here relate to what he calls the *Zuhandenheit* and *Vorhandenheit* relationships between the thing and the world.

To reiterate, while *Vorhandenheit* is an attitude in which a thing is observed and stands out in itself, the *Zuhandenheit* attitude describes a thing in use. Here, the thing becomes transparent through use; it becomes a thing-for-something, like a 'machine-for-leaving messages', and as such, the 'machine-as-machine' fades from our experience. But, as Heidegger exemplifies, in a situation where a tool is broken, it no longer reveals the world to us through a *Zuhandenheit* relationship, but becomes visible in itself as *Vorhandenheit*. This focus on the technology itself instead of the technology-in-use is significant to my description of the early technology-as-dead metaphors. Here, the lack of trust in the ATTR as a tool for communicating with the segment foregrounds the machine-as-machine and becomes a barrier for using it as just another simple, everyday device.

However, the empirical material's relationship with Heidegger's philosophy of technology is less affirming of his ontology than can be seen at this point. The analysis of the material has so far shown a chronology in the attitudes toward the recorder, as the subtraction-oriented attitude is not heard on *P4 pop* after 1975. The more reassuring transparency-oriented attitude can be heard from the beginning and dominates the segment throughout the 1980s and '90s, but what is interesting is that, from 1982, it is supplemented by a third perception, the 'machine-as-change'.

In the machine-as-change attitude, the extra that is added by the messages and contact with listeners on the ATTR is in focus, like in this introduction to *P4 pop* from 1982 by host Steen Rasmussen:

P4 pop is of course our answers to your questions .h  
 a:nd °now I'll go down and see (.) how (.)  
 it has been going since last°  
 and I can see  
 <I have taken the tape recorder  
 with me in here you see>  
 and I can <see that it is completely glowing hot still>  
 .h someone has really meant something this week  
 1982-11-07

In his emphasis of the way listeners' messages influence the recorder by making it 'glowing hot', Rasmussen presents the ATTR as more than a container: It is an agent of change and a point of contact in the segment. Another characteristic of the ATTR in Rasmussen's perception is anthropomorphism, since it is taken into the studio as a guest and has reacted to the input listeners have given it. In this way, the perception can be seen as the non-eerie counterpart to the machine-as-dead perception, since both ascribe agency to the technology, but what one finds ominous, the other finds comforting.

Apart from the anthropomorphism, this perception of the ATTR as change is more related to the machine-as-container attitude, since Rasmussen clearly does not see the ATTR as a barrier to contact. But it also does more than just contain messages. This is further illustrated in the following quote by the host Helle Helle in 1991:

((Jennifer Warnes' 'A Singer Must Die' plays during  
 speech))  
 and to top it off there is one place (.)  
 where you can sing how you want (.)  
 without ever risking anything (0.4)  
 since there is no one who knows how  
 the human behind the voice looks (1.0)  
 .hh regardless the voice can draw its own image



of those who speak or sing  
in tonight's second P4 pop .h  
eleven different voices perform (0.8)  
they don't look much like one another (.)  
but they have all been in contact .h  
with P4's invisible pop machine  
on >thirty-one thirty-five (.) fifty-two zero four <  
1991-05-05

The understanding presented by Helle Helle emphasises the technology as a possibility for contact between listeners, not as a way of listeners 'mailing', in the technology-as-container's letter-analogy, their opinions and experiences to the segment. The ATTR is not just a thing in the sense a container is; it is a place. And Helle Helle describes this place where voices can meet as safe and anonymous since no one can know 'how the human behind the voice looks'. Even though they are not alike, what they have in common is the place, the ATTR.

every day <some of you>  
leave a little piece of yourselves (.)  
on P4's automatic telephone tape recorder  
you punch in  
>thirty-one (.) thirty-five (.) fifty-two zero four<  
.h wait for the beep  
.h and while the tape rolls in the machine  
you begin to talk (0.7)  
in that way a small part of you (.) comes out  
through the radios around the country  
and float in through the ear of other young people (1.0)  
it is almost a little bit magical (0.5)  
>thirty-one thirty-five (.) fifty-two zero four<  
it is happening (.) <once again> (.) right now  
1995-11-05

In this final example of technology perceptions from the sample, host Anne Laursen Viig presents the ATTR as a meeting place for like-minded listeners, similar to Helle Helle's, above. There is the sense that something is left intact on the ATTR ('a small part of you') and delivered to listeners ('float in through the ear'), as in the container-perception. But here, more than 20 years after the first example in this analysis, we are also met with the representation of the ATTR as the almost exact opposite from Pharao's presentation of the 'dead technology': the 'magical technology'.

While technology-as-change is not as prominent as the neutrality of the technology-as-container attitude, it does occur in 22% of the sample's 156 statements about technology relationships. This confirms Ihde's argument that Heidegger's technology relations *Vorhandenheit* and *Zuhandenheit* are not exhaustive of the ways in which technology reveals the world to us (Ihde, 2010). Specifically, there are several 'positive' technology relationships in which the technology is in focus, not just in cases where the technology is broken, as can be seen in my final technology-as-change metaphor.

This analysis of the phenomenology of using the ATTR and the technology relationships found in the sample functioned as groundwork for establishing the article's focus on changes in 'praxis' – the use categories identified through the data-driven coding used in the analysis. If we consider the previous chapter's discussion of accessibility, Carpentier argues that available technology is one of the conditions of possibility for access, interaction and participation (2011a, p. 28). However, I will argue that analyses of changes in the use and perception of technology are necessary supplements to studies of, for instance, technology's historical introduction in media or technology availability in different social groups. Beyond the binary access or non-access to technology, analyses of perceptions and uses, such as the present analysis of how radio hosts have related to the same technology over 23 years, emphasise the range of different meanings and purposes an outwardly identical technology could historically play in *P4 i P1* as a condition of the possibility of media accessibility.

Returning to Ihde's more encompassing terminology of 'technology relationships' discussed earlier, he introduced terms such as 'hermeneutic, alterity and embodiment relationships'. To keep as close to the material as possible, I prefer to establish concepts that are closer to those that occur in speech itself instead of bringing in a term foreign to it. But if Ihde's terminology were to be aligned with mine, 'embodiment' is probably what Ihde would call the technology-as-container, since it is a perception in which the host or listener uses technology in a way that makes it fade from view. In contrast, the anthropomorphism of technology-as-change aligns it with Ihde's description of the alterity relation to technology.

Although Ihde's critique of Heidegger is crucial to my study of radio, as mentioned, I do not use Ihde's terms for a technology relationship as synonymous with those in this analysis. Another reason for this distinction is that Ihde's concepts of hermeneutic, alterity and embodiment are theoretical constructions created to give a general account of technology relationships, while my study of the ATTR presents a set of concepts that are based on work with empirical material featuring specific technologies. Therefore, my terminology here contains distinctions such as an emphasis on the ATTR as a point of contact between people in the machine-as-change perception, which sets it apart from Ihde's account of the alterity relationship.

### **From consciousness to networks**

In the analysis above, the idea of working within a continuum of technology relations is in accordance with postphenomenological practice, but I chose to develop a terminology specific to *P4 i P1* instead of adhering to Ihde's notions. As I will discuss in the following section, it is not the only time I have adapted and even departed from a postphenomenological approach to technology. Some of my approaches in the dissertation represent discontinuities rather than a continued adaptation of postphenomenology or Heideggerian phenomenology. I would, therefore, like to focus here on ways in which my approaches

allow for further development of the way we study technology uses and perceptions.

In ‘A telephone between us’, the use of the concept of ‘passage’ from John Law and Ingunn Moser’s article on ‘Good passages, bad passages’ (1999) presents a fundamental break with phenomenology’s consciousness-centred ontology. ‘A telephone between us’ describes both the concept of passages and how it pertains to the *Tværs*-conversations, which I will not be repeating. Rather, the background for introducing the term in the context of the dissertation will be discussed in more detail.

An early issue in my work with Ihde’s concepts had to do with how we describe the perception of one technology if someone is interacting with a range of technologies and materialities at once. This led me to question the comprehensiveness of Ihde’s approach to technology relations. To take a likely example, what if a caller uses a telephone to call the ATTR, thereby entering into an embodied relationship with her telephone, which could plausibly function as an transparent extension of her voice’s range, but then relates to the ATTR as a quasi-other? Returning to the formalised illustrations earlier, it would look like this:

human-technology —> technology (world)

Thus, it seems the postphenomenological account of technology relations through its focus on humans versus technology may be unnecessarily limited, as it is rarely the case that a situation does not entail a whole network of non-human and human agents. Although Ihde’s continuum of technology relationships contains very convincing notions of how humans relate to technology, there were several conflicts in the *Tværs* material (as I will soon elaborate) that involved precisely situations in which an array of heterogeneous materialities and subjects are interacting. It becomes difficult to approach the situation as a relation between one consciousness and one materiality.

Returning to Law and Moser’s study, it is performed within an

actor-network theory (ANT) approach, in which the world is studied not primarily with an eye for human perception, but in a so-called flat ontology in which the distinction between humans and non-humans is of 'little initial analytical importance' (Law, 2009, p. 147). Phenomenology's direct relationship between 'the subject' and 'the technology' is replaced by a focus on networks in which agency is distributed among heterogeneous actors (telephones, mothers, daughters, telephone lines, living rooms etc.).

I turned to the notion of passages as a consequence of lacking the vocabulary within postphenomenology to describe some of the relevant dynamics in the situations in which *Tværs*'s callers found themselves, as described above. One important issue in particular in the material dealt with the way a range of materialities would influence the situations in which the segment's callers found themselves, which could not easily be understood through phenomenology's straightforward subject-world relation.

The verbal and written monologues in *P4 pop* and *Det elektriske barometer* doubtlessly contain similar arrays of materialities that co-create the situations in which listeners call and write, but I first became aware of them through conflicts in conversations in *Tværs*. If we consider *Det elektriske barometer* or *P4 pop*, listeners could choose when to contact these segments through a letter or a message on the AT\*TR, but callers for *Tværs* had to find an accessible phone in a setting that allowed for a private conversation within the few hours when phone lines to the segment were open. For listeners calling from a telephone booth, the situation involved, among other things, the design of the booth, the booths' surroundings and having enough money for the call. For the listener calling from a landline at home, the situation involved the telephone's placement, the presence of parents, and many other human and non-human actors. Through an ANT approach to phone-in conversations in *Tværs*, the study found the telephone was an ambiguous technology (in some instances regarded as private, in some instances regarded as public) which could create passages that constructed exactly the opposite as intended by the emancipatory *Tværs*: teenagers as 'un-

able' subjects.

My account of *Tværs*'s callers as going through a passage that may aid or obstruct their sense of themselves as able or dis-able subjects is not a complete break from postphenomenological theory, since this also entails an understanding of subjectivity as co-constituted by materiality. A nonfoundational approach to knowledge (without certain or secure foundations, such as an absolute truth) is also shared by postphenomenology and ANT (Ihde, 2012, p. xiv; Law, 2009, p. 149). But the turn toward a flatter ontology is a way of broadening the focus on consciousness, which may sometimes provide an unnecessarily narrow account of the relevant actors in a given situation.

### **Perspective and discussion**

In this chapter on materiality, I have portrayed some of the key notions and philosophers that have guided my understanding of radio's materiality in all the dissertation's articles. I would now like to turn to a discussion of how these could be applied in cultural or media studies as well as a consideration of this theme's relationship with the dissertation's focus on participation.

From Heidegger, I have taken the key insight that technology is a way of revealing as well as the influential analysis of tools presented in *Being and Time* and developed in 'The Question Concerning Technology'. This understanding has led me to study technology in *P4 i P1* as a foundational part of the programme's substance and development. However, it has been Ihde's postphenomenological re-evaluation of Heidegger that has allowed me to express the continuum of ways in which the programme's listeners and radio hosts have used and related to technology during the programme's lifespan.

Further, I have developed this approach to the materiality of radio within an ANT perspective, in which phenomenology's focus on human perception is modified to include the significance of a distributed agency among a range of human and non-human actors. The

notion of passages has been a beneficial addition to the phenomenological approach, as it allows for the inclusion of situations in which the listener was inflexible regarding time and place. This was the case for *Tværs*, which callers could only call for a few hours on Sunday night (unlike *P4 pop*, to which access, though also dependent on a phone, was flexible regarding time). These circumstances made all those other social and material factors in the home that were related to the home phone, such as its placement and significance in the family, constitutive elements of a call to *Tværs*.

All of the above approaches have been especially useful in uncovering some of the more overlooked elements of radio: the productive roles of actors other than radio professionals, namely listeners and materiality. Of course, there is nothing in these phenomenological, postphenomenological or ANT approaches that necessarily limit them to studies of radio. Conversely, postphenomenology and ANT represent unusual theoretical approaches to the medium, and these approaches could be easily transferred to other areas of media and cultural studies. They would be especially productive in digital humanities projects in which scholars have access to empirical data in which developments in technology relations over longer stretches of time can be studied, to expand our understanding of how everyday things co-create our culture.

As I have presented in the beginning of the chapter on accessibility, (post)phenomenology makes up one of this dissertation's central theoretical approaches, while the other is critical theory. The latter represents *P4 i P1*'s self-representation, introduced by Enzensberger in the 1970s, while a perspective such as Heidegger's philosophy of technology, discussed in this chapter, functions as an alternative reading of the programme's development. Reflecting on the two themes, however, I would like to emphasise that, though these theoretical perspectives are introduced for different reasons, they can relate to one another in productive ways. There are interesting similarities regarding the status of technology, but the existence/absence of a political project marks a central difference between the two

perspectives, to name but one element. For Enzensberger, engaging in media's 'consciousness industry' necessarily entails manipulation, but this does not mean that the public should disengage from the media; they should, rather, mobilise in productive collectives to counter-manipulate. From this argument, it follows that Enzensberger is very aware of the dissemination of new technology for producing media content in the 1970s: 'tape-recorders, ordinary cameras, and movie cameras' (Enzensberger, 2003, p. 267) as means for this new distributed production.

In broad strokes, both Heidegger's and Enzensberger's approach thus considers technology as non-neutral, and they are wary of the negative ways the world appears to us when using technology. Both also endeavour to mark a way in which we could still engage with technology. These attitudes come from fundamentally different understandings of society and experience, but the similarities may account for the combination of technology scepticism and – experimentation existing in *P4 i P1* and the way this has made the programme particularly interesting to consider from a material perspective: An initial critical perspective in the programme's conception established an awareness of the potentials presented by the newly available technologies of the 1970s, and tape recorders, telephones and answering machines were introduced. At the same time, *P4 i P1*'s programme staff sometimes distanced themselves from these experiments, since technology was something to be discussed and explained, not just naïvely used. Because of the attention given to technology's potential, critical approaches to media production may therefore provide promising material for phenomenological analyses of technology relations.

Further, there is a fundamental schism in this dissertation between the act of defining participation in radio, which I acknowledge to be political-ideological in nature, and my use of STS approaches. STS is frequently associated with neoliberalism<sup>19</sup> (Fuller, 2005; Hess, 2013;

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<sup>19</sup> However, these debates chiefly involve ANT or posthumanism rather than postphenomenology.



Remedios, 2013) because the field is perceived as lacking a conceptual framework that retains a role for structural and institutional analysis and is also criticised for lacking an overall purpose (Fuller, 2005). Regarding this, the dissertation exemplifies a broader and more critical approach to studies of technology and society, where considerations of the structure of the institution of DR as well as the power relations between listeners and radio hosts are regarded as complementary elements of analyses of the heterogeneous network and technology relationships in *P4 pop*, *Tværs* and *Det elektriske barometer*.

Finally, though I throughout the dissertation have stressed the importance of materiality and technology as fruitful approaches to understanding radio's substance and development, I do not propose that they are exhaustive. The current development of a 'material turn' in the social sciences and humanities (Bennett & Joyce, 2010; Coole, et al., 2010) has re-initiated a focus on how the things we make and use co-create our culture and our environment. However, it would be a classic error for studies within the field to mistake one approach for the whole picture. Rather, I would argue that the Heideggerian or STS perspectives on technology presented in this dissertation are very relevant theoretical additions to more language-centric approaches to cultural phenomena and media, such as discourse analysis, semiotics or conversation analysis.

## Conclusion

In the dissertation's previous chapters, I have presented, discussed and elaborated on the methodology, history and theory involved in my studies of *P4 i P1*. In the following, I will sum up the results achieved by the project and give a critical evaluation of these in relation to existing knowledge and future implications. This, as well as a general summation of the PhD project, will be the purpose of this final section.

The crux of this dissertation has been the interplay between participation and the social uptake of technology in radio, how technology is a part of the mediation of participation and how technology is co-creating participation. In addressing these matters, all three of the dissertation's articles have included the passing of time as an important dimension, as both the article's qualitative and quantitative analyses have been performed on the basis of a large sample spanning 23 years. One of the most interesting discoveries from the project has been how such a focus on listeners' role in radio over decades showed how the production and creative development of radio also comes from listeners outside broadcasting institutions.

Although studies of listeners' influence on radio's formation over time do not form a core part of radio studies, there does exist an established terminology covering some of the genres that involve listeners (the phone-in) and an attention to the power relations in which listeners become involved through the radio medium (for instance Shingler, 1998). However, the significance of materiality or technologies in these situations has not conventionally been studied.

In a macro-perspective on radio's technologies presented through this project's utilisation of a digital radio archive, familiar technologies such as radios, recorders and telephones that might on a daily or yearly basis present themselves as stable elements of our everyday lives appear multistable.

To sum up, the project's most important results (which will be discussed in greater length below) have contributed to:

- A greater understanding of radio's development and the elements that influence it,
- Establishing new aspects of materiality's significance in radio,
- A more precise terminology concerning genres that include listeners in radio and
- The formation of a methodology with which to study audio material longitudinally.

These findings were the results of the studies performed in all three dissertation articles. In 'Sometimes I think it is hell to be a girl' (forthcoming), through a longitudinal study of the ATTR in *P4 pop*, I concluded that the segment over time was co-created by actors from each end of the broadcasting spectrum. The study also confirmed the often-cited connection between the sociable and confessional uses of radio (Chignell, 2009; Douglas, 2004; Shingler & Wieringa, 1998). I found as well that not just human agents contribute to the uses and development of radio, and I provided preliminary findings on the significance of materiality in twentieth-century communication technology.

A further interest in uncovering materiality's significance in radio led me to study the role of the telephone in the phone-in *Tværs* in 'A telephone between us' (submitted). In an analysis of the passages of listeners calling the segment from home, I found that the emancipation promised in the late 20th century by the phone-in genre collided with the materiality of listeners' homes and the perception of the telephone as non-personal.

My subsequent study with Erik Granly Jensen of the character of listener participation in *Det elektriske barometer* in 'Constituents of a hit parade' (submitted) examined the segment from both a qualitative and quantitative approach. In the study, participation in media was found to be a complex process existing at various levels of

*Det elektriske barometer*, depending on whether the segment is considered from a micro, meso or macro perspective. The study also supported the findings in the article on *P4 pop* that listeners over time can be seen to play an active role in driving radio's development.

Through Carpentier's AIP model, used in 'Constituents of a hit parade', I have subsequently argued for developing the terminology regarding listener-oriented radio using the term 'accessible radio'. I use the notion to describe radio in which contributions from listeners are included. As I observe in 'Sometimes I think it is hell to be a girl', a similar term is 'audience-participation program' (Loviglio, 2005, p. 42), but the concept of 'participation' implies a balance of power structures between actors (Carpentier, 2011) that is not implied by the more limited notion of 'access'.

The shared methodological approach of all studies in the project has focused on retaining openness toward what may be in uncharted audio material, rather than the supposition that the material should be studied using pre-existing categories. Within studies of radio, the approach is pioneering as a method for longitudinal study in terms of its scale as well as involving both qualitative and quantitative analyses of radio's auditory content.

This approach, as described in the chapter on the archive, has been cumbersome and time-consuming work, especially in preparation for the qualitative and quantitative analyses, since the high degree of manual work involved in describing the auditory content combined with an inductive approach inevitably means that a lot of the data generated for these studies were not used. However, familiarity with the study's empirical material's context provides a significant advantage, while such an inductive approach means that one avoids assuming what the interesting parts of an uncharted archive are. With speech-recognition software and computer algorithms distinguishing, for instance, speech from music and perhaps even different genres, one can also easily imagine that the cumbersomeness of the preparatory work in such an inductive approach could be ameliorated or the workload could be shared in collaborative approaches using tagging, for

instance.

If we turn from implications for research methodology to media production and development, one observation following my focus on developments in technology relationships is that I have consistently found the social uses of new technologies and media formats to be overlooked. The overall implications of this observation seems to be that attentiveness to the sociable potentialities of technology or format, or awareness that sociability may be a developmental blind spot, holds the possibility for more rapid innovation of media technologies and formats.

*P4 i P1* as a case has shown that the interest in participatory formats has not decreased in the slightest since the previous politically motivated movement in the 1970s. However, the distinction between ‘accessible’ and ‘participatory’ tells us that there are many ways of involving listeners and users that are not necessarily motivated by a desire to be inclusive. The emancipatory and maximalist democratic ideals of that time do not seem to have followed alongside media content, at least not if the radio broadcasts studied in this dissertation are regarded as representative of media’s development. Without the same political agenda to motivate the inclusion of listeners, an important question for further research is: How are we to understand the logic through which accessibility is so positively valorised in present-day media?

In the longitudinal studies of radio in this dissertation, a productive media audience can be seen to offer potentially valuable inspiration and innovation in media development. But with the motivation behind participation’s positive valorisation in contemporary media disregarded, the situation calls for media producers to examine their motives when introducing participatory elements into media.

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# **Sometimes I think it is hell to be a girl: A longitudinal study of the rise of confessional radio**

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## **Abstract**

Despite wide recognition in media studies, the significance of technology is often understated or overlooked in radio and sound studies. This article addresses this absence in a longitudinal study of uses by radio listeners and radio hosts of an ‘automatic telephone tape recorder’ in a Danish youth radio segment. The study shows that the two groups developed a range of uses for the ATTR from 1973 to 1996 and that especially confessional use, despite its paradoxical synthesis of public and private, emerged as the significant feature of the segment. An analysis of changes in users’ perception of technology over time is performed within a phenomenological media studies framework and the emerging field of postphenomenology, particularly through the concepts of ‘multistability’ and ‘dailiness’. I formulate a sociomaterial perspective on radio as the ‘intimate medium’ whose formation is negotiated through time in a multistable process between technology, listeners and radio hosts.

## **Keywords**

materiality, media technology, postphenomenology, radio, multistability, phenomenology, participation, dailiness

## Introduction

In the course of the history of radio, the presence of listeners has become naturalized, and the communicative technologies involved when listeners contact the radio, what is said, and how, are usually taken for granted as natural elements of the medium. This article presents findings from a longitudinal study of human-technology interactions in Danish youth radio. I investigate how intimate confessions from listeners became a natural part of radio as well as the kind of content these confessions replaced.

*P4 i P1 (P4)* was a weekly youth radio programme broadcast by the public service media institution, Danish Broadcasting Corporation (DR), on the talk radio channel, P1, on Sunday evenings between 1973 and 1997. Although a variety of radiophonic genres was represented during *P4*'s three continuous hours on air, a defining feature of the programme was to experiment with listeners' access and contributions to the programme. This study is concerned with one such experiment with 'accessible radio'<sup>20</sup>, the segment *P4 pop*. Here, a new communication technology, the automatic telephone tape recorder (ATTR), was employed; an answering machine connected to a telephone number was accessible both day and night.

Despite some notable exceptions (Dyson, 1994; Scannell, 2010; Sterne, 2006), the significance of radio technologies has been underrepresented in radio and sound studies. However, the material from *P4 pop* addresses this absence by disclosing the incremental process of the social uptake of technology. The study includes how both hosts and listeners appropriated the unfamiliar ATTR-technology from its introduction in 1973 through the following two decades. It thus presents a 'denaturalization' of the taken-for-granted

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<sup>20</sup> I use 'accessible radio' to describe radio in which contributions from listeners are included. A similar term is 'audience-participation program' (Loviglio, 2005: 42), but the concept of 'participation' implies a balance of power structures between actors (Carpentier, 2011) that is not implied by the more limited concept of 'access' used here.

way radio functions, 'showing things that we now take as "given" in the process of their formation' (Moore, 1993: 76).

Using messages broadcast on *P4 pop*, I identify six ways in which listeners used the ATTR and show how 'confessional use' over time emerged as a signature characteristic of the segment. Confessional talk, in which intimate details of listeners' private experiences are shared (think of, for instance, Crisell's 'confessional phone-in' (1994)), can be viewed as an extreme example of listeners' presence on the radio, considering the public nature of broadcast programmes. Despite the paradoxical public-private synthesis of confessional talk, we could argue that its presence is natural; after all, radio is considered an 'intimate medium' by scholars such as Chignell (2009), Crisell (1994), Douglas (2004) and Loviglio (2005).

The study's approach is inspired by domestication theory (Morley and Silverstone, 1990; Silverstone and Hirsch, 1994) and relates to the field's exploration of users' appropriation of technology. Notwithstanding, the material from *P4* is considered from a phenomenological perspective since phenomenology is uniquely suited to develop our understanding of subjective experience, which, as first-person accounts of human-technology interactions, forms the empirical foundation of this study.

I emphasize the emergence of an intimate everydayness in *P4* as a result of the programme's recurring presence every Sunday evening over two and a half decades. In this, I draw on phenomenologist and media historian Paddy Scannell's notion of *dailiness*:

The programme structures of radio and television will produce and reproduce - as they are meant to do - the everyday human social sociable world every day endlessly. In so doing they help to constitute the meaningful background of everyday existence which they themselves foreground. (Scannell, 1996: 177)

As I will show, the function of the passing of time in the weekly *P4* transforms the programme into such an ‘endless background’ to listeners’ youth with which they grow very familiar.

To arrive at an understanding of change in the perception of technologies such as the ATTR I supplement Scannell’s perspective with the emerging field of postphenomenology. Postphenomenology is founded on insights from, as well as criticism (Ihde, 2010) of, Heidegger’s philosophy of technology. It is a vital contribution to our understanding of radio as its main concern is the relationship between human beings and technology in which both the subjectivity of humans and the objectivity of reality are seen to be shaped. Another inspiration from postphenomenology is its dedication to empirical material, or as formulated by Ihde: ‘[Postphenomenology] is a step away from generalizations about *technology uberhaupt* and a step into the examination of *technologies in their particularities*’ (2009: 22).

Within postphenomenology, as opposed to classic Heideggerian and Husserlian phenomenology, technological foundationalism and determinism are rejected in an understanding of technology as ‘multistable’ (Ihde, 2012), and thus, technological artefacts like the ATTR have no stable intrinsic value or function. This does not mean that our relationships with technologies are unstable; rather, they can hold multiple stable meanings, sometimes at the same time, depending on the imagination and cultural context of their users. Multistability is a concept that encompasses discrepancies or contradictory perceptions and accentuates the non-finite nature of our relationship with technology. It is therefore valuable in analyses of the (often non-linear) process of the social uptake of technology.

The multistability of human-technology relationships is the foundation of my enquiry into the social uptake of the ATTR. However, this is not to say that through postphenomenology, this study advances a radical constructivist view on technology; variations of uses are not indefinite since the ATTR has physical qualities that

constrain it from serving as, for instance, a baking tin. Ihde calls this ‘instrumental inclination’, a notion that resembles ‘affordance’ (e.g., Gibson, 1979; Hutchby, 2001; Norman, 2001). However, due to its broad use in contemporary technology studies, affordance has become disassociated from a specific definition or theoretical approach, which diminishes its analytical value (Oliver, 2005). The postphenomenological concept of instrumental inclination signifies that in the adoption and adaptation of new technologies, many paths could be taken and none is determinative, but over time a ‘center of gravity’ emerges (Ihde, 2012: 148).

This study is concerned with describing the emergence of this ‘center of gravity’ through use. Rather than serving as a mainly media historical account, the longitudinal study of the rise of confessional uses of the ATTR thus serves here - through (post)phenomenology - to enable a revision of our understanding of the reasons behind and factors involved in the multistable formation of radio over time.

To introduce the ATTR before we turn to the ‘empirical particularities’ of the relationship between the technology and its users, it is best understood in comparison to technologies, like the telephone or the answering machine, to which it is closely related. Like the answering machine, the ATTR is an add-on to the telephone. It cannot exist without it. Therefore, the experience of leaving a message on the ATTR is also inevitably one of talking on the telephone, tying it to the properties of the telephone as seen by its users. This was stressed as an advantage by former *P4* host, Karsten Sommer,<sup>21</sup> since the phone is ‘the teenager’s medium’, one that their listeners would innately feel comfortable using. But the ATTR is also different from the telephone. Where phone talk usually happens as a live conversation between two people, messages on an answering machine are delivered to a machine and stored on tape. Also, whereas

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<sup>21</sup> Few documents regarding *P4*’s history are available, so informal interviews for background information on the program were conducted by Mette Simonsen Abildgaard with Karsten Sommer, Stefan Samsøe-Petersen and Kenan Seeberg who were hosts and producers on *P4*

the phone requires some knowledge of an appropriate window in which to call, the ATTR demands no such sensibilities. It is available irrespective of the time of day.

The answering machine acts as a stand-in for one person, or a household, but the ATTR was a gateway to a radio programme. As such, the recipient of messages on the ATTR was a concept that was open to interpretation, allowing a call to be perceived as directed at a specific radio host, another listener, the programme in general or no one but the ATTR itself. All of these were choices that influenced the message that was ultimately left. Listeners often resolved this challenge by uttering the neutral 'Hi P4' as if greeting the programme in conversation.

Within DR, the ATTR was set up in a separate room from P4's studio. Listeners would call a specific number, hear a greeting, and the proverbial beep, and could then leave a message of their own. No record of this greeting message exists today, but it is recalled by a former host as having run along the lines: 'Hello, this is P4's automatic answering machine. Speak as long as you'd like after the beep'.

### **About the study**

In the years 1973-1997, an estimated 4,500 hours of reportages, radio drama, interviews, listener comments and conversations were broadcast on *P4*. Nearly all programmes were preserved in DR's radio archive on tape reels and DAT tapes. I had a large sample of these broadcasts digitalized through the LARM project ([www.larm-archive.org](http://www.larm-archive.org)), which has provided access to a digital radio archive of more than 1,000,000 hours of audio, mainly radio archival material from DR. Digital radio archives offer new ways of examining the medium of radio, as well as our cultural history, as represented by the media, and access to the digital archive has made the present longitudinal study of the development of radio possible.



The study sample was designed as a valid and representative selection of *P4* to facilitate an analysis of the development of listener involvement in the programme. Two same-day programmes were included from each year that *P4* aired. The sample amounted to a total of 167.5 hours broadcast over 44 Sundays (excluding 1997 since *P4* ended before the sample days). In three cases, DR's archive for the sample day was incomplete, and the subsequent available week's programme was used as a substitute.

To enable analysis of the ATTR and human-technology interaction for this study, listeners' use of and radio hosts' comments about the ATTR were isolated and transcribed. This was done in the qualitative software NVivo 10, wherein all segments were described in a written summary. This resulted in the identification of 703 listener messages on the ATTR and 245 user instructions about the ATTR, which form the study's empirical data. The selected material was then coded in an inductive, data-driven approach (Boyatzis, 1998), as described below<sup>22</sup>. Although I initiated the study with a pre-conceived interest in the ATTR's development, the data-driven approach structures material according to my reading of listeners' and radio hosts' own experiences. Data-driven coding was considered the most appropriate method for this study's phenomenological approach because its starting point is the life world of the listeners and hosts involved, not the analytical categories of the academic.

To synthesize developments in the use of the ATTR, six categories of common listener and radio host uses were identified on the basis of listener messages and host instructions. The categories will be presented in the analysis, but to introduce the chronology identified in the material, they are listed here in the temporal order in which they appear in the sample:

1. Music request: Requesting songs, talking about music

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<sup>22</sup> Only codes relevant to this study have been included here, contact the author for a list of all codes utilized in the sample

2. Interpersonal: Showing awareness of other listeners, for example, referring or appealing for advice or encouraging opinions or comments
3. General opinion: Debating a topic in general terms in relation to the public or private sphere
4. Personal opinion: Debating a topic on a personal level in relation to the private sphere Creative: Performing creatively, for example, reading one's own or a famous poem, singing, rapping, etc.
5. Confessional: Revealing personal experiences of a private nature

These categories are not mutually exclusive, and listeners could use the ATTR in several ways during one message. Especially interpersonal use rarely occurred independently as callers would, for instance, appeal to other listeners during a confession.

The study focuses on the gradual appearance of the most recent coding category, confessional use, and its development over time. As mentioned, confessional use became emblematic of the ATTR and was also remarkable because of a paradoxical mix of public and private elements.

Following the study's phenomenological approach, the analysis is predominantly qualitative, but quantitative data from the empirical material provided context and supplementary information. Exemplary and typical quotes from listeners and hosts were chosen to provide material for the qualitative analysis, which was transcribed with symbols from conversation analysis (Hutchby and Wooffitt, 2008) for emphasis, pause, speed, and volume. The material was then translated into English as literally as possible, except where minor modifications were necessary in order to preserve conversational style<sup>23</sup>.

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<sup>23</sup> As the study is not linguistically oriented, original transcriptions are not included. They are available upon request to the author

### **A teenage debate forum**

A full account of the media historical context of the material falls outside the scope of this article, but for those unfamiliar with Danish media history, the following is a brief introduction to *P4*.

In the 1970s, the public service broadcaster, DR, was a media monopoly provider of radio and television. According to Danish public service law, working ‘in the service of the people’ meant that DR was obligated to provide content marked by ‘quality, versatility and variety’ (§10, my translation) for all viewers and listeners. The creation of the youth programme, *P4*, in 1973 was one of the ways in which DR had begun to recognize the then ‘new’ teenage audience, which was becoming uninterested in Danish radio because of competition from popular foreign music channels like Radio Luxemburg (Vemmer, 2006: 166-7).

In the highly politicized climate of the 1970s, the programming staff at *P4* thought of youth radio in terms of politics and ideology. As an internal document from DR’s Department of Children and Youth stated, the target group (ages 14-18) was naturally rebellious towards authorities. The department’s programmes should therefore provide young listeners with materials for ‘self-development and self-education’ (my translation) while placing the audiences’ problems in a broader societal context. *P4*’s editorial staff’s<sup>24</sup> interest in critical left-wing media texts, such as H.M. Enzensberger’s ‘Baukasten zu einer Theorie der Medien’ (1970) (‘Constituents of a Theory of the Media’), also informed an understanding of youth radio as a democratic tool for solidarity and emancipation. Radio, as a one-way medium, transmitted the authoritative voice of the institution, DR, and *P4* was created as a largely accessible programme in the effort to give a voice to those who were perceived as voiceless: the unemployed, underpaid and uneducated working class youth.

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<sup>24</sup> In interviews with the author, Samsøe-Petersen referred to Enzensberger as inspiration for *P4* as democratic two-way radio.

*P4* was made up of clearly differentiated named segments, each approximately half hour long. The initial concept of the *P4 pop* segment was that listeners could request songs. For the first year that *P4* was broadcast, the use of the ATTR was solely restricted to this user category. We can see this expressed quantitatively in Figure 1's (below) visualisation of the distribution of the coding categories in percentages per sample year, which offers an overview of the following qualitative chronological account.

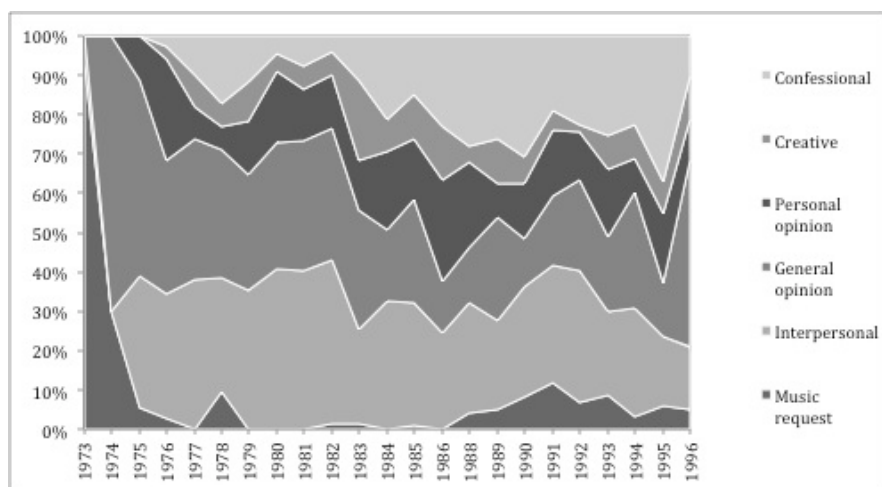


Figure 1: Distribution of listener use per year between 1973 and 1996

As presented in Figure 1, music requests represented the earliest common use. I shall return to other developments illustrated here, but for now, we can observe that *music requests* declined dramatically when general opinion emerged as the most popular approach in the early 1970s. However, the music request category is significant as the original intention behind the introduction of the ATTR.

To illustrate, the programme host, who tied all segments together and hosted segments such as *P4 pop*, explains the purpose of the ATTR in one of *P4*'s earliest programmes:

here it is P4 pop where the coast is clear

for all good ideas for good records (0.6)  
hhh if you want a record played  
here in P4 pop .h  
then the first thing you have to do t- figure (0.4) out  
(0.3) for yourself why you really  
think this record is worth playing hh  
*1973-07-29(1) 13:46,3 - 14:30,2<sup>25</sup>*

As we can see, the ATTR is regarded as a tool for listeners to talk about music. It was not initially part of an ideology within *P4*; it incorporated popular music into the otherwise dense and talk-oriented programme. The initiation of the segment reflected a sensibility towards audiences' needs by using the ATTR for this purpose at a time when records in Denmark were expensive, and home discographies were limited.

In 1973, listeners' messages on the ATTR were, with few exceptions, brief and focused on performing and qualifying a music request, like this teen listener and his friend in the background:

yes hello um <I would like to hear< um (2.1)  
((in background)) mississippi queen  
mississippi queen by um (0.3)  
((in background)) mou[ntains]  
[moun]tains (0.1)  
>I just think it is fucking great because I play myself<  
(1.0)  
I play it myself right and (2.0)  
hh ° I just think it is fucking great I can't say why°  
I just think it's fucking great man (1.2) I just do (0.3)  
yeah (0.8) HEY  
*1973-07-29(1) 14:30,2 - 14:53,2*

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<sup>25</sup> The number refers to a time code in an mp3-file. Number ( ) after the date marks file numbers per program

Although this particular listener sounds somewhat intoxicated, which might have contributed to his memory lapses and slow delivery speed on the ATTR, most callers struggled with several factors pertaining to the ATTR format at this early stage; it was difficult for listeners to qualify their taste in music beyond a few sentences about the fact that something was 'great'. A more central issue was nervousness stemming from a lack of familiarity with the technology; the ATTR had just been introduced, and although the telephone, its gateway, was a common household object, and tape recorders of various kinds were familiar, their combination in the answering machine was not available to the average Danish teenager in 1973. Listeners had no pattern of use to fall back on, so uses from previous similar technologies like the telephone (by beginning messages with 'hello, this is') and letters (ending messages with 'best regards') were transferred while inventing and developing uses for the ATTR, as I will show in what follows.

During the initial years of the ATTR, both groups of users demonstrated a narrow and stable understanding of it. In terms of hosts, this was displayed in specific instructions about intended uses, as seen earlier. Since listeners were very reluctant to diverge from these instructions, no ATTR message departed from the realm of music.

However, as shown in Figure 1, use of the ATTR changed remarkably between 1973 and 1974 as the music request purpose became destabilized; listeners were now reacting to debates within *P4* as well as in the news in general, and their messages functioned as part of on-going debates on various topics. A statement by Director of Education Asger Baunsbak-Jensen about Marxist teachers and possible socialist indoctrination in public elementary schools brought on the sample's first instance of the ATTR being used for debate. The national debate propelled pupils to call the ATTR, all of them, according to the programme host, to defend their teachers.

After the introduction of debate, instructions from hosts became more general than the narrow 1973 format. In the following years, hosts would encourage listeners to voice their opinions on the design or quality of *P4* or a difficult issue that the programme had dealt with, such as youth unemployment or abortion. In a typical outro for *P4 pop*, listeners were now simply being asked for their comments on messages on the ATTR:

that was an opinion and comments are (0.5)

very welcome

you can call on zero sixty-seven twelve sixteen

around the clock (0.8) all week

1978-11-05(1) 1:42:49,7 - 1:42:58,5

What emerged from this focus on listeners' opinions represents the first instance of a multistable shift in the perceived purpose of the ATTR. In the early 1970s, the ATTR gradually became a technology for recording opinions: a recorder with a political edge, heavily encouraged by broadcasters and used by a young audience, which could comment on current affairs in society. Teenagers could respond to some of the claims about themselves made by the 'adult regime' of politicians and opinion-makers and criticize the content and form of the broadcasting media.

This idea of encouraging debate on a societal perspective might seem familiar, and I argue that it certainly was; the ATTR had been re-interpreted according to the idea of *P4* as offering emancipatory two-way radio, and radio hosts now instructed listeners to use it in this way. But why was an emancipatory interpretation of the ATTR not presented in 1973 when this ideal was represented in other parts of *P4*? Judging from the initial modest ambitions for the ATTR, a conceivable explanation is that complex uses, such as social aspects of technologies, are rarely envisioned before they have been in use for some time (Frissen, 1995). It did take some years of experience in using the ATTR before its more complex instrumental inclinations

were established, but through the passage of time and hosts' and listeners' repeated interpretations of the ATTR, perceptions of its possible uses found consensus and stability, albeit temporarily.

### **The introduction of the private**

In the debate-oriented perception of the ATTR described above, broadcasters' instructions corresponded with listeners' use. However, this should not be taken as evidence that both groups were equally committed to this perception. In fact, an interesting dynamic in listener use shows it developing differently, becoming more private and less oriented towards social issues, even though this was not supported by the hosts' instructions.

In order to carefully track the introduction of the private, which serves as a precursor to the later confessional use of the ATTR, I distinguish between personal and general listener opinions as the personal opinion functions as a forerunner to the introduction of listeners' private lives. This division is not straightforward since all listeners' comments are made from a personal standpoint and speak to an individual's experiences. The crucial distinction is whether the listener is dealing with a topic on a personal level, referring to a fellow listener, a friend or him/herself or talking about something on a general level, which does not involve his/her or others' own experiences.

I found the ATTR's second multistable shift first represented by a reaction:

hi to you in there  
I would like to say that I think it is a bit of a shame (0.3)  
what this here tape recorder has come to  
((transcription excluded))  
then there was also a girl who called in  
a couple of times ago and said that if  
we thought she should uh (.) sleep with her guy.  
.h we can't answer that for her



.h >because well that is something so private<  
so that other people cannot at all know  
and interfere with it  
.h then there was a man the last time who called in  
and said that this programme had become too much sex  
(clears throat)) sex .hh and I think that  
he might have told his kids what it is all about  
.h but I think that it is neglected many places in schools  
and also in homes  
and then P4 is the only place where it can come out  
to the young what it really is about  
1975-11-02(1) 24:12,0 - 25:14,7

At first glance, this 1975 message contains two conflicting opinions; the listener disapproves of her fellow teenage listeners talking about their own experiences and turning to others for advice on the ATTR. Her opinion that private issues are ‘something that other people cannot at all know and interfere with’ plainly states this, and her embarrassment is even more evident when she clears her throat to speak the word ‘sex’. On the other hand, she has a typical Danish 1970s liberated girl’s approach to sex education. The message exemplifies the fine line between personal and public opinion existing on the ATTR at that time when issues, such as homosexuality and abortion, were debated without referring to personal experience and were introduced with a classical *public service* ambition of providing information and public debate, not confession and catharsis.

However, the message also points to new uses of the ATTR and foregrounds perceptions of the technology that would be central in later years. The message shows that the ‘debate forum’ now included an interpersonal element whereby listeners acknowledged the existence of co-listeners and presupposed they would be listening every Sunday. In fact, as we saw in Figure 1, interpersonal use after 1974 was part of as many as 40% of messages. As mentioned earlier, nearly all of those messages - like the present example - included

other uses as well. Therefore, the increase in interpersonal uses does not indicate that other uses were necessarily decreasing; rather, use of the ATTR increasingly included an acknowledgement of other listeners.

Returning to the message, the caller chooses not to directly address the listeners she is referring to; she speaks as if she is talking about them to a general public, the ATTR or a programme host at *P4*. The interpersonal use of the ATTR at this point included such a perceived barrier between listeners and co-listeners, but the caller does expect other listeners to be present at their radios to listen to her reply; she also refers to others who are actively requesting feedback from co-listeners. This tells us that being a *P4* listener entailed an incrementally growing feeling of *membership* over time, which is a function of, in Scannell's terms, the dailiness of broadcasting media; on Sunday evenings, *P4 pop* was becoming an integral part of listeners' everyday life experiences.

As the listener speaks of others who are using the ATTR in a confessional manner, we learn that listeners' boundaries were being pushed. Enabling debate on issues of interest to listeners had for years been the ATTR's main function, so in this sense, it merely follows that they would eventually bring up the personal, the intimate and even the embarrassing. The development can also be attributed to one of the ATTR's key instrumental inclinations: its ability to let you - in the instance of the call - speak as if in complete confidence, to the 'no one' that the machine represents, since some things are easier said to machines than to people.

The corresponding development of confessional and interpersonal uses of the ATTR suggests that the appearance of confessional use is connected to callers experiencing a sense of membership with other listeners. Then again, such a connection appears contradictory since it means that listeners simultaneously perceived the ATTR as a connection to co-listeners as well as a machine used in complete privacy. Later, I will return to how this

paradox, inherent to private confessions on public radio, in fact displays multistability in a micro-context.

The description of the gradual increase in personalised content on the ATTR raises the question of how *P4*, as a political and emancipatory programme, reacted to such a development. In an illustrative example from 1983, host, Steen Rasmussen, could be heard announcing a ‘completely new use’ of the ATTR:

but we have not forgotten (.)  
what P4 is about this month  
it is actually about hh music theatre  
films and magazines .h  
that is all that media  
you get in your face every day .hh  
media it's of course not only just that  
big entertainment machine  
that others (.) make money off  
and that they make without us being able to get in on it  
(.) it is for example also fashion  
(.) <it is how we look (.) how we>  
express ourselves everyday (.)  
that is media also means expressing yourself  
and using the media (.) and being heard  
and <you have had the opportunity  
to do that for a while>  
namely on P4's telephone recorder .hh  
now P4 will present something completely new  
a whole new use of the telephone recorder  
(.) which is (.)  
>listen to P4's telephone tape show<  
*1983-11-06(1) 5:10,8 - 5:51,9*

Rasmussen connects the use of the automatic telephone tape recorder with the ideological roots of *P4* and radio as a two-way

apparatus whereby listeners can ‘let [their] voice be heard’ by singing songs, reading poems, etc. A new creative use of the ATTR is announced in a context that emphasizes the Children and Youth Department’s characteristically critical view of media as potentially one-sided ‘entertainment machines’. Rasmussen’s argument of opposing the media’s power through contributions thus provided listeners with an acceptable framework in which to contribute with new non-political, creative performances and stories in the otherwise emancipatory programme.

What makes Rasmussen’s statement peculiar, however, is that a message of a listener singing a loud, off-key version of Frank Sinatra’s ‘My Way’ is played immediately after this quote. Rasmussen comments that this listener had been leaving that message every week as long as he could remember, thereby disclosing that listeners had, in fact, been using the ATTR creatively for a long time. The incident displays how multistable shifts transmit; listeners’ use of the ATTR nudged hosts to reinterpret the technology although they did so within *P4*’s ideological frame.

### **A confessional booth**

The early social uptake of the ATTR technology occurred over a ten-year period (1973-1983) in which users related to it as ‘new’; listeners were hesitant to include their private experiences, and radio hosts, who were often directional in their instructions, were not inclined to encourage uses other than sharing opinions.

In contrast to the defining and normative approach of the hosts to the ATTR presented so far, later years show a different kind of user instructions in which hosts were more reluctant to designate specific uses. Instructions stressed the multistability of the ways in which the ATTR, often referred to by the pet name ‘the automatic’, could be used; it was accessible day and night, the most recurring phrase in descriptions of it, offered direct radio contact, and you could say anything to it:

.h another phone to P4 is open day and night  
.h that is where you call  
if you want to give meaning to your thoughts  
.h or if you just want to say something (.)  
others could benefit from  
*1993-11-07(1) 3:14,0 – 3:17,0*

In this instruction from 1993, host, Rune Schjøtt, largely leaves the decision of when to call, what to say and how to say it when calling the ATTR to the listener, thereby also reflecting listeners' increasingly independent use. In another example of this kind of instruction, host, Helle Helle, poetically expresses her open approach in 1991:

and that is I guess what we all are (0.2)  
heading towards a time of year  
when the face becomes less pale in colour  
.h maybe because of the sun  
and then maybe the heart starts to pump  
more blood around the body  
.h as people are starting to take their clothes off  
around us  
if anyone is overheating  
(.) or just longs to be on fire again  
it may set your mouthpiece in motion  
to call the pop machine  
on thirty-one thirty-five fifty-two zero four (0.5)  
the line is open day and night (1.0)  
.h as it was last week (0.2)  
and some very different sounds came out of it then  
*1991-05-05(1) 33:36,0 – 34:06,1*

In Helle's introduction to *P4 pop*, referred to as the 'pop machine', she uses the word 'sounds', not 'voices', to describe the content of the week's messages on the ATTR. This might be the ultimate example of openness when giving user instructions for the ATTR: Any sound, voice or not, will do.

However, this is not to argue that a listener who received only these instructions would be faced with a technology that was completely open to interpretation. Although *P4*'s hosts had generally become less specific, how to perform on the ATTR was clear from their poetic language. The recurring reference to 'your thoughts' and personal emotional experiences such as 'boiling over' also highlight the personal perspective in the confessional use of the ATTR. This stylistic promotion of the personal reflects the steady increase in confessional use in the mid-1980s and 1990s, as indicated in Figure 1.

The later period of the sample is not only marked by quantitative change, listeners' familiarity with the ATTR also grew, and user categories therefore underwent qualitative change. This is illustrated by the following example in which the caller does not perceive the ATTR as a strange technology placed in a broadcasting house for the purposes of a youth programme, but as a thing that existed for her:

yes (0.3) I just want to say  
that sometimes I think it is (0.8) hell to be a girl (1.5)  
for example (0.5)  
she always has to take the consequences of intercourse  
if there are any consequences (3.5)  
what do you do if you get pregnant what do you do  
>I am so scared I am so scared<  
what should I do (1.2) I don't know  
.hh I really don't know ((sigh))  
and (1.3) I must see (2.5)  
it was stupid to call here maybe but (0.8)  
it is the only place I can talk (2.6)

oh .hh I really hope I don't get pregnant  
I really hope so (2.0)  
or else what the hell do you do (1.0)  
what do you do (3.2)  
I don't know (1.8)  
can you get tested right after intercourse  
or should you wait until (.)  
after the period's  
the period was supposed to be there (1.0)  
I don't know (0.7)  
can't someone give me some advice (3.0)  
what do you do when ((sniffles)) the condom ((sniffles))  
bursts in the middle of everything huh  
tell me that (1.5) I don't know  
*1984-11-04(2) 1:04:32,8 - 1:05:52,1*

In contrast with earlier, more guarded, confessional messages, the caller presents a different degree of intimacy in the confession her co-listeners are privy to. She seems to be calling immediately after intercourse in which the condom fails, something we could imagine her telling her best friend in confidence. Unlike a best friend, however, the ATTR was there day and night, whenever it was needed. This material aspect of the ATTR as temporally flexible is important because most listeners' access to it was quite inflexible, for instance, in households with only one phone placed in a common area like the hallway or the living room. Also, while being able to phone in at odd hours was not critical when the ATTR was mainly for uttering one's opinion about school, it was crucial when the use was confessional.

Here we see that the ATTR, as listeners' 'only place I can talk', had a stable role as technology-for-me. In an incremental process, topics raised on the ATTR increasingly addressed personal aspects of the private sphere of its listeners, which can be seen in the rise of characteristics like personal opinion and confessional messages.

There were new elements of trust and familiarity in this perception of the ATTR, which I see as functions of the dailiness of broadcasting media; for young people, *P4* was, along with homework and perhaps a dreading of the coming week, an integral part of every Sunday evening for (at this point) eleven years.

The ATTR as ‘the only place one can talk’ became a central notion later perceptions of the technology. This is repeated in the following example, a long and emotional message beginning like this:

hi >this is for that girl who called in this Sunday  
and said that she had no friends and stuff like that  
and she was actually feeling quite bad<  
.hh and I want to say to you  
that I >just know how you feel<  
because two years ago  
I felt exactly the same way as you  
and that is far from nice (0.5)  
.h I tried to commit suicide at one time  
but since I am actually dyslexic hehe  
so that I can't read  
I took some aspirin  
instead of some sleeping pills  
.h so I just threw up  
*1988-11-06(2) 17:28,7 - 17:52,1*

The listener in the above quote talks directly to the depressed listener, addresses her as ‘you’, and based on her own experience, advises her to join a sports club in order to gain friends since ‘they don’t come to you because you sit at home and stare’. This exemplifies a new, more direct dimension of the interpersonal characteristic, since the ATTR is now used as a kind of ‘delayed phone line’ to other listeners. In this way, there is, in the late interpersonal use, a perception of the ATTR that enables its users to talk as if they were talking to a friend.



Returning to the previous example, we can now see a pattern in the way in which listeners had an imagined group of other listeners who were present to them since the caller also continually addressed others: ‘can’t someone give me some advice (3.0) what do you do’. In both cases, this exemplifies a new qualitative dimension of the interpersonal characteristic of the technology whereby listeners are so at ease with their imagined audience that they are capable of speaking to the ATTR in an almost dialogical way. The confidentiality of listeners’ messages seems to stem from such an increased feeling of membership among them as well as the firm expectation that other listeners are listening every Sunday, which supports the connection suggested earlier between the prevalence of social ties between listeners and the rise of private content in messages.

After her confession, the listener above tells her own story of pulling herself ‘up to become human again’. She informs us that she does not speak to her best friend about this: ‘that is just my soft spot and I can’t talk about it’. Paradoxically, however, she can say it to the ATTR because as a technological tool, it is a neutral listening agent with no capability of responding, a no-one that can receive such messages for which she can imagine no human recipient. This tells us something about the manner in which listeners were able to talk to the ATTR about such private matters, knowing that their message could be broadcast the following Sunday; the ATTR functioned like the anonymising screen between the parishioner and the priest in a Catholic confessional booth, another situation in which only the voice conveys your message, thus allowing you to say all things anonymously, without judgment.

Both messages thus illustrate qualitative developments in the interpersonal and confessional uses of the ATTR, but the latter message also addresses the foundational paradox of intimacy on the radio; how a listener can directly address others (a perception that implies an imagined community of listeners) while at the same time treating the ATTR as a confessional booth (a perception that implies

privacy and anonymity). In the latter instance, multiple contradictory perceptions of the ATTR exist within a single message.

Thus far, Ihde's concept of multistability has been used in a macro-context to explain how the social uptake of the ATTR technology over time diverged from its first narrow use. However, my suggestion is that the material also shows us multistability in a micro-context. Listeners effortlessly shifted between perceptions, as illustrated by the listener above who 'can't talk about it' to anyone, using the ATTR as a mute recipient and then seconds later, switches to address another listener directly as if in conversation, using the ATTR interpersonally as a phone line.

In fact, if we take inspiration from Ihde's Heideggerian analysis of technology relationships (Ihde, 2010), one of the most interesting aspects of *P4 pop* is the manner in which radio listeners' and hosts' relationship with the ATTR takes so many different forms. One perception was that of technology as a container for information, as when listeners used the ATTR to summarize their position in a debate; another related to the ATTR as a person, as when callers spoke as if they were addressing a radio host or listener. Finally, the analysis shows examples of technology relationships where the ATTR itself becomes a technological 'other' that is always available, but unable to respond. This allows listeners to speak of things they feel no person should hear, which became an instrumental inclination of the ATTR that was a substantial element of the rise of confessional radio in *P4*.

## **Conclusion**

This article presents an interpretation of the development of radio as co-constituted by two groups of actors that are not typically at the centre of attention in radio studies: listeners and technology. Through a systematic longitudinal study of human-technology interactions in *P4 pop*, we have followed the rise of confessional radio in the Danish youth radio segment. Accordingly, I have showed that in its initial

years (1973-1974), *P4*'s ATTR had a narrow, non-multistable purpose as a technology for music requests. Five other prevalent uses of the ATTR then gradually appeared in listeners' messages between 1973 and 1983. At first, general\_opinions replaced music requests; an interpersonal awareness of other listeners was introduced; then personal opinions supplemented the general perspective and finally, creative and confessional uses emerged.

Throughout the 1970s' practice of debating issues in society, a perception of the ATTR as an emancipatory debate forum was established. This practice echoed the ideological left-wing roots of the programme, *P4*, and was enforced in numerous instructions wherein radio hosts encouraged listeners to engage in debate on the ATTR. As radio listeners familiarized themselves with the ATTR technology, an experience of membership and familiarity with the programme followed, and from this, a more personal tone and choice of topic when talking to the ATTR. I see this development as a result of the dailiness (Scannell, 1996) of broadcasting and the instrumental inclination (Ihde, 2012) of the technology. By being available for the listener every day and night, the ATTR was perceived as a technology that existed for listeners. As hesitation towards the 'music request machine' evolved into trust for listeners, the content of the messages on the ATTR correspondingly changed. The hosts of *P4*, who introduced the ATTR in an emancipatory agenda that did not support personal confessions, followed listeners and began to reinterpret the ATTR's purpose within this frame, until, over time, the ATTR was established as a more multistable technology that was 'open' for whatever the content listeners chose to use it for.

The study's most important finding is based on the idea of technology as multistable, that both listeners and radio hosts act as co-creators of media communication technologies as they negotiate and re-negotiate them from either end of the broadcasting system. Still, further longitudinal studies into the relationship between listeners and broadcasters in accessible radio are needed if we are to

clarify the nature of this genre as a historically democratic or participatory aspect of the radio medium.

Besides documenting a multistable process, the data informs us of the conditions of possibility for confessional radio. Close social relations through the medium appear to be a (perhaps unsurprising) prerequisite for intimate talk since we see a rise in interpersonal use before a rise in confessional use. This development supports the connection between the two suggested by several radio scholars (Chignell, 2009; Douglas, 2004; Shingler, 1998). However, in the analysis of *P4 pop*, connections between interpersonal and confessional uses are also identified as a paradoxical phenomenon wherein listeners grew to perceive the ATTR as representing both a phone line to other listeners and an anonymous confessional booth.

I therefore return to the concept of multistability, as used by Ihde (2012), to explain how these conflicting perceptions can simultaneously co-exist in the listener. As illustrated by the listener who states that she ‘can’t talk about [her problems]’ to anyone - and subsequently proceeds to address her co-listeners - we hold multiple perceptions of the materialities we engage with and are able to, in the course of a sentence, switch our perceptions of them.

However, not only human agents are shown here to contribute to the uses and development of radio, the study also provides preliminary findings on the significance of materiality in twentieth century communication technology, an area which still lacks full exploration by media researchers (Pool, 1977; Wajcman and Jones, 2012). I argue that the relative newness of technologies such as answering machines or tape recorders in the 1970s limited the ways in which they were initially thought to potentially function in radio. I also depict how the placement of the telephone was an obstacle to accessible radio while the temporal flexibility of the ATTR provided users with new agency, most notably through a heightened sense of privacy that provided the foundation for using the technology in a confessional way.

The study of *P4 pop* thus presents a new perspective on radio as the 'intimate medium' by which confessional use rises due to sociomaterial factors, such as changes in radio formats, technologies, material foundations - as well as the multistable perceptions of radio hosts and listeners.

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# **A telephone between us: *Tværs* and the materiality of the radio phone-in**

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## **Abstract**

This article looks at the home telephone's historical significance in the radio phone-in genre on the basis of a qualitative study of telephone conversations in the Danish youth radio programme *Tværs*. In an STS (Science and Technology Studies) approach to the genre, the concept of 'passage' from Law and Moser (1999) provides a theoretical framework for understanding radio phone-in conversations as shaped in a sociomaterial process. The study's empirical material derives from a large sample of radio archive material obtained from the public service broadcaster, Danish Broadcasting Corporation, and digitalized through the LARM project. Examples of telephone conversations in *Tværs* and a charting of the recent history of the telephone in Denmark portray the telephone in radio as a historically evolving technology which, in late 20<sup>th</sup> century family life, changed from being a non-personal technology used in common areas to the teenage user's personal technology for private conversations. The study finds that the emancipatory phone-in genre's main challenges were the materiality of the home and the telephone's ambiguous privacy and ownership status, and traces the issue of media talk privacy to contemporary online surveillance.

## **Keywords**

domestication, passage, phone-in, radio, technology, telephone, STS



## Introduction

Radio is often described as blind, invisible or ephemeral (Chignell, 2009; Crisell, 1994; Shingler & Wieringa, 1998), and studies of the medium largely downplay its material components. Through the concept of ‘passage’ (Moser & Law, 1999) from Science and Technology Studies (STS), this article addresses this lack via a historical exploration of the home telephone’s significance in the radio phone-in genre using a qualitative study of conversations in the Danish youth radio phone-in *Tværs*<sup>26</sup>, where Danish teenagers from 1972 up until today have phoned in and talked about their troubles. Among the various situations where technologies are necessary to radio, I emphasize telephone conversations in a phone-in programme because listeners are non-professional radio performers and, therefore, often foreground the technologies the radio host is skilled at making invisible.

The motivation for introducing a notion from the philosophical field of STS in a study of phone-in conversations is that the phone-in genre, in contrast to the traditional one-way character of ‘old’ broadcast media, shares interesting participatory characteristics with today’s new media. The study is thus inspired by a new tradition in which media scholars turn to STS to explore the distinctive sociomaterial character of participation in social media technologies (Wajcman & Jones, 2012). Such new approaches to ‘new’ media also impact how ‘old’ broadcast media are approached, and how they in turn can illuminate the sociomaterial ancestry of our contemporary media technologies. In this case, my intention is to shed new light on current media interactions through analyses of archival material containing conversations in a phone-in programme.

The study’s overall approach relates to the notion of ‘domestication’ (Silverstone & Hirsch, 1994), an STS-perspective

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<sup>26</sup> *Tværs* translates to ‘across.’ The meaning is not directly translatable, but alludes to a situation where one is in opposition or feels out of place.

aimed at studying ‘socio-technical change where it could be seen to be both mattering most and where it was almost entirely taken for granted: in the intimate spaces of the home and household’ (Silverstone, 2006, p. 231). Accordingly, the phone-in genre is contextualized by the homes from which its listeners are calling, and the dynamic of family life that shapes the ensuing conversations with the phone-in’s radio host.

Conversations from *Tværs* are analysed to call attention to the technological substrate of the phone-in, specifically the home telephone and its development in terms of both its physical placement and its role in the power relations of family life, which are significant elements of the genre. Although this is not a study of ‘youth and media’ per se, teens’ and parents’ uses and perceptions of technologies are considered because they are part of the power balance between those actors in the home.

However, a problematic underlying assumption in the metaphor of domestication suggests that the technology in the home is incrementally ‘tamed’ in a straightforward and one-sided development <sup>27</sup>. In the present study, socio-technics, or sociomateriality, as it will be termed here, rather signifies an approach in which the subjectivity of humans and the objectivity of materiality are perceived as inexorably related and co-shaped. Their relationship may take on a multiplicity of stable forms, but it is continuously changing.

Since numerous heterogeneous factors are part of what constitutes a call to a phone-in programme, especially when performed by a teenager, I introduce another term from STS: Attempts by *Tværs*’s callers to establish contact with the radio host are seen as a ‘passage’; a network of heterogeneous elements that must work in a certain way if the subject is to achieve ability – ‘good’/functioning passages perform ability and ‘bad’/impossible or difficult passages perform disability (Moser & Law, 1999).

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<sup>27</sup>A similar critique was expressed by Silverstone (2006).

In their article ‘Good passages, bad passages’, Law and Moser considered how material specificities lead to or affect the character of dis/ability, and the ways dis/ability is linked to identity or subjectivity. Their study does not regard physical handicaps exclusively, but relates to passages that produce the subjectivity and sociomaterial dis/ability of anybody. In this regard, it is significant that *Tværs* was directed towards and attracted mainly teenage listeners, since this group of family home inhabitants stand outside both childhood and adulthood and are in a process of emancipation, while their ownership of and access to the home’s technologies cannot be taken for granted.

By introducing the concept of passages, I supplement domestication’s focus on the social shaping of technology (Silverstone, 2006) in the home with an actor-network theory (ANT)-perspective (Law, 2009). In this branch of STS, the one-to-one relationship between ‘the subject’ and ‘the technology’ are replaced by a focus on networks in which agency is distributed. Such a shift accentuates two important factors to be discussed in this study:

- Media conversations do not happen in discrete, isolated moments between, for instance, a radio host and caller, but in a sociomaterial process in which a network of heterogeneous elements must function in a certain way for media to be accessed, and
- The significance of teenagers’ contact with the media can be recognized, in a wider sense, as a means of becoming independent, able subjects.

In the following pages, I present the study’s methodology, followed by a brief introduction to *Tværs*. Then an account of the two-fold histories of the telephone and radio and their amalgamation in the phone-in provides a historical perspective, after which we turn to a qualitative analysis of conversations in *Tværs*.

## Data and methods

The study draws on material from a 167.5-hour sample taken from the public service provider DR's radio archives and digitalized through the LARM-project ([www.larm-archive.org](http://www.larm-archive.org)) that has provided access to a digital radio archive of more than 1,000,000 hours of audio. The sample consists of two *P4 i PI (P4)* programmes containing one or two *Tværs* segments each year from 1973 to 1996, thereby representing the general content and development of *Tværs* during that period. Access to such a large digital archive was a condition of possibility for this study of the home telephone's historical significance in the radio phone-in genre, because it has enabled, as I will describe below, a mapping of materiality's otherwise elusive role in *Tværs*.

In preparation for this study, *Tværs* conversations were isolated using qualitative software (NVivo 10), wherein the sample was listened through and summary descriptions written for all segments. Following this study's focus on the significance of the telephone, conversations were coded in a theory-driven coding strategy (Boyatzis, 1998) for instances in which a caller or host mentions technology. This was defined on the basis of a qualitative assessment of whether a technology is mentioned en passant, like a listener mentioning that she was in a car (not coded) or technology is brought up as something that is to be used a certain way, as a topic for conversation or someone expressing their view on certain technology (coded).

Technology was mentioned in *Tværs* 37 times, the majority of which were the radio host's brief obligatory encouragement for listeners to call in, leaving twelve instances distributed over nine programmes. In these instances, for example, technology was mentioned in quick interruptions by the programme host explaining that a caller's telephone booth had broken down and the conversation continued from another booth.

The coding process, therefore, revealed that the typical *Tværs* programme offered very few auditory clues to its material components. This was not altogether surprising because *Tværs* is a counselling programme, so the ideal broadcast is one in which listeners can learn from conversations between the programme host and other callers. In this context, conversational detours into a caller's experience of the telephone or other technologies will rarely contribute to solving the caller's problem, and such conversations were conceivably not aired or such passages edited out.

Of the twelve remaining instances, one specific conversation, however, did emerge in which technology became a central part of the caller's problem. Most of this conversation was, therefore, broadcast despite severe communicative complications, making it an exemplary case to analyse some otherwise unnoticed aspects of phone-in materiality, which become apparent when breakdowns illuminate the genre's taken-for-granted technological arrangements. This inquiry into the telephone in *Tværs* is therefore designed as a qualitative study in which close analysis of this particular conversation serves as our main object, contextualized by two shorter instances from the sample.

The chosen examples were transcribed using conversation analysis (Hutchby & Wooffitt, 2008) conventions for emphasis, pause and intonation, to emphasise the examples' spoken character. Additionally, I emphasize an understanding of phone-in radio as sociomaterial, and have attended equally to speech and non-speech elements of the examples to display the interactions' human and non-human actors. The material was then translated from Danish as literally as possible, except where minor modifications were necessary to preserve conversational style.

### **Introducing *Tværs***

According to the *Historical Dictionary of British Radio* (Street, 2006, p. 204), the term 'phone-in' was coined in the United States in 1968

and first used in the United Kingdom in 1971. The following year, the public service provider Danish Broadcasting Corporation (DR) first broadcast *Tværs* on Danish radio. *Tværs* was born into an emancipatory vision for radio that blurred established boundaries between communication technologies and the media: Critical theory's notion of radio as a two-way medium that would breach the social relationships and practices that separated the telephone and radio (Brecht, 1974, orig. 1932; Enzensberger, 1970). In the revolutionary and democratic spirit of the 1970s, the idea was set into practice across the European media landscape as broadcasters became increasingly concerned with freeing their audiences from what was perceived as the oppressive one-way character of mass media.

As mentioned, *Tværs* was part of the weekly three-hour youth programme, *P4*, which was broadcast on the public service provider's news and information-oriented talk radio channel *P1*. *P4* was DR's attempt to appeal to its dwindling teenage audience in a time of public service monopoly where young audiences' only alternative to DR's radio offers was pirate stations or foreign radio, such as Radio Luxemburg. *P4* contained genres from radio drama to interviews, and *Tværs* became emblematic of a programme that sided with the youth and the working class, offering an emancipatory approach to listener participation. The venture was successful and popular, especially in the 1970s before alternatives from local and commercial radio and television.

The idea for *Tværs* came from Swedish radio, where a phone-in programme of the same name and concept was broadcast. Notes from a meeting at DR in 1972 show the segment's original concept:

The programme's philosophy is that young people (as opposed to many other groups) are in a transitional process in many ways, for example with regards to education, housing, work and emotions. The purpose of the broadcasts is to cover

some of these needs for information (Bryld 2002: 25, my translation).

*Tværs* was initially conceptualized as an ‘employment magazine’, but as we see here, its initiators from the beginning saw the segment as addressing broader questions to do with the ‘transitional process’ of young people.

Within a few years, *Tværs* became a ‘confessional’ phone-in (Crisell, 1994) that dealt with callers’ emotional issues as well as practical questions related to late adolescence. The choice of hosts, however, reflected a focus on practical issues, as the programme featured Tine Bryld, a social worker, and Emil Klausbøl, an employment consultant. When Klausbøl died in the mid-1980s, Bryld continued alone, hosting *Tværs* for 36 years before retiring in 2008.

Listeners could call *Tværs* while *P4* was live each Sunday night. A caller would get in contact with a gatekeeper and would be told either to call back next week or expect a call back from the host of *Tværs*. Because conversations were taped, not broadcast live on air, many listeners’ problems could be heard in the course of a Sunday evening. Next week’s *Tværs* would then present one or two conversations in an anonymized form (callers could ask *Tværs* not to broadcast a conversation, although this was sometimes discouraged by *P4*’s host because others would not be able to learn from their experience). Since the phone-in dealt with social work as well as producing radio, an important part of its pre-recorded format was the potential for numerous conversations each week. As Bryld explains, the format was in place from day one and was very successful, partly because allowing personal information to be edited from conversations before broadcasting protected listeners (Bryld, 2002).

In Crisell’s analysis of the phone-in, he distinguished between the presenter as oriented toward the audience or as oriented toward the caller (Crisell, 1994). Although he concluded that most presenters do both, he posited a conflict of interest inherent in the role of the

phone-in programme host. For *Tværs*, the situation was different because, as mentioned, the segment was never live. Also, *Tværs*'s hosts were not involved in producing the programme's other segments, and so probably experienced minimal conflict of interest when talking to callers compared to Crisell's description.

*Tværs* branded sexuality and love as integral parts of *P4*'s material and, in the early 70s, its hosts expressed tolerance toward homosexuality and abortion and encouraged the use of contraception. *Tværs*'s mostly teenage callers were encouraged to think for themselves and be sceptical of authorities like their teachers and parents. This, of course, was controversial in the 1970s and 1980s, when more authoritarian parenting approaches were common. *Tværs*'s controversial and liberal approaches to many issues meant that listeners often called in without their parents' knowledge or consent.

*Tværs* is still broadcast today, and I will return to its current format in the conclusion.

### **The telephone, the radio and their combination in the phone-in**

Through the 20<sup>th</sup> century, social practices and relations had established *Tværs*'s key technologies, the telephone and the radio, as fundamentally different. This study concerns itself with both, primarily in the late 20th century when their technological differences had become convention, so the constructed nature of the divide between telephone and radio is a fundamental assumption for the forthcoming analysis.

As Sterne noted, 'casual users associate [...] radio with broadcasting and telephony with point-to-point communication' (2006, p. 182). But usage before and during the First World War, as well as rural use of transmitting/receiving radios, tells us that radio is not necessarily a one-way medium. As for the telephone, '[w]e know, for instance, to call the various kinds of wireless telephones (cellular, PCS, etc.) *phones* instead of radios because they are associated with



the institutions and practices of the phone system, despite the fact that they are themselves wireless transmitters (which would, theoretically at least, make them radios)' (2006, p. 182).

In *Understanding Radio*, Andrew Crisell emphasized that the phone-in was regarded as a major development because, for the first time, it gave the listener a radio presence that was *audible* 'spontaneously and away from broadcasting equipment, in his own home or local telephone box or at his place of work' (1994, p. 191) – in contrast, of course, to an in-studio guest. As Martin Shingler stated, media hosts are the same on television and radio but, in radio, we are less 'distracted by their impeccable – too good to be true – image and by the all too obvious presence of the technology that brings them into our homes (i.e., the cameras, microphones, etc.)' (1998, p. 80).

In both accounts, technology as 'invisible' means that radio seems less produced – and this fosters the listener's sense of relationship with the radio presenter. The importance of technology's visual absence and the listener's placement in the home seems to have gained acceptance among most radio scholars. Like Crisell, Brand and Scannell stressed that phone-in callers remain in their own spaces while dialling into a public discourse, which may be defined by the studio or caller:

The radio or tv studio is a public space, to enter it is to cross a threshold. To be physically present is to be inescapably aware of the broadcast character of the event for the technology and personnel of broadcasting – cameras, microphones, lights, production staff are pervasively evident (1991, p. 223)

In this way, programme identity can be said to 'lie across the public institutional space' (Scannell & Brand, 1991, p. 222) from which the host speaks and the domestic public or professional spaces

from which callers speak. What is highlighted in this account is the inescapable conflict between the institutional spaces from which broadcasting speaks and the domestic and working spaces within which it is heard.

These accounts of the phone-in, however, show that the consequence of materiality as a necessary part of the ‘invisible medium’ is rarely taken. For instance, little attention has been paid to the essential ‘second site’ (if we consider the radio studio the first) for the phone-in – the place from which someone is placing a telephone call. For our study, the phone-in marks a junction in the histories of the telephone and radio in which the perception and habits related to the use of each – no longer separate – technology would have significant consequences.

As Susan Douglas convincingly argued, one technological invention especially – the widespread use of the newly introduced transistor radio in the late 1950s and early 1960s – moved the perception of how one listened to radio: ‘people – especially the young – brought radio with them and used it to stake out their social space by blanketing a particular area with their music, their sportscasts, their announcers’ (Douglas, 2004, p. 221). In this way, radio had become a mobile, personal technology and a way of signalling one’s identity in any room or place at home or in public, 30 years before the average person would own a mobile phone.

From the programme’s beginning in 1973, *Tværs*’s young listeners would have been able to listen to the programme on a transistor radio in their bedrooms. But, as I will show, a person wishing to call the confessional programme under similarly private circumstances may have encountered some obstacles. However, after it became a household object in the first decades of the 20<sup>th</sup> century, few sources on the everyday use of the home telephone exist (Wistoft, 2007), and it has practically ceased to be an object of interest to scholars (Pool, 1977).

**Figure 1: Telephone use in Denmark in 1974, 1984 and 1994**



Therefore, some groundwork must be done here, in which I will focus on concepts such as place, accessibility and technology and their importance in the radio material.

In Figure 1, three example years portray the main characteristics of telephone use in Denmark during the three decades covered by the sample. Numbers in the figure represent subscribers at the largest regional company, KTAS, according to statistical yearbooks and the KTAS telephone company magazine (Fogh, 1998; KTAS, 1972, 1973; Møller, 1981; Teleråd, 1984; Telestyrelsen, 1994, 1996).

Like broadcast radio, telephony in Denmark was provided under a monopoly (until the market was liberalized in 1995). Two private and two state-owned phone companies<sup>28</sup> each covered a part of Denmark with exclusive rights to their areas, so the services and telephone model (or, after the 1970s, models) provided by the local telephone company were consumers' only options.

Figure 1's sketch of the telephone's history establishes that, for a teenager in this period, the home telephone was a technology in rapid transition. Home telephones became increasingly complex tools as a range of available add-ons was introduced: In the 1970s, telephones were basic, albeit expensive, household tools available in only one or two models. During the 1980s, however, they gradually became a commodity consumers could customize, with a broad range of available models that encouraged subscribers to acquire different models for different household members. Accordingly, partly because of technological developments like the advent of mobile phones in the 1990s, but primarily due to advances in accessibility, such as more available models and lower costs, the telephone could increasingly be seen as a personal technology. These developments urged subscribers to use telephones more often (almost doubling the number of inland calls per year between 1974 and 1994) and acquire more per household, to place throughout their homes.

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<sup>28</sup> KTAS, JTAS, FKT and Tele Sønderjylland.

Further, the telephone's physical placement within the home exposes its existence in a heterogenous field of public and private spaces. As a 1997 study of childrens' access to and ownership of media in eleven countries (including Denmark) concluded, telephones were rarely found in children's bedrooms, although teenagers of the time were more likely to have their own phone lines (d'Haenens, 2001, p. 76). The number of telephones in teenagers and children's rooms were likely to be correspondingly lower in the 1980s and 1970s as a reflection of fewer phones in households in general, as seen in Figure 1.

This is especially pertinent to our understanding of the experience and significance of the telephone for *Tværs*'s fourteen to eighteen-year-old target group. They are in transition between childhood, where the experience of territorial privacy can be said to encompass the whole home, and adulthood. While private spaces for adults or children encompass these communal areas, a teenager's private space is their room. As can be learned from Bovill and Livingstone's study of 'bedroom culture' and media use: 'The bedroom provides a flexible social space in which young people can experience their growing independency from family life' (2001, p. 198).

The teenager's private sphere is thus discordant with the adult intrusion bound to take place in the communal areas of the living room, kitchen or hallway. When telephone conversations can take place only in this composite private-public communal space where adult presence and eavesdropping is possible, teenagers must access the telephone in different ways to protect their privacy. Although, over time, the telephone moved toward private spaces – from the shared hallway or living room to the parents' bedroom and even the teenager's own room – the technology was still not entirely private because shared telephone lines made overhearing possible.

To put these observations about the telephone and radio into a theoretical framework, I appropriate a term from Moser and Law, and

think of adolescents' use of technology in terms of 'passages'. In this case, a specific passage between the home and radio programme must work in a certain way if teenage callers are to access *Tværs*. If the network of materials needed to contact *Tværs* is in place and working, there is ability, and if they are not, there is dis/ability:

Dis/ability is about specific passages between equally specific arrays of heterogeneous materials. It is about the character of the materials which en/able those passages. And it is about the arrays which secure or don't secure them (Moser and Law 1999: 4).

Following this, a good passage to *Tværs* is a smooth one, in which for instance the telephone can be used freely and in privacy, the caller has enough coins for the telephone booth, everything turns out to be in working order, etc. A bad passage, on the other hand, is one in which contact with Tine Bryld is difficult or impossible. Further, a teenager is a person passing through a complex development stage, from the dependency of childhood to the independence – ableness – of young adulthood. The issue of the home phone's placement, whether just one or several, the hours parents are home and how they feel about personal conversations with radio hosts are thus characteristics of a passage that can aid or impede a teenage listener's sense of self as an able and autonomous subject.

### **Analysis: Radio phone-in conversations**

The three following examples offer telling illustrations of the telephone's significance in the phone-in *Tværs*. Supported by the preceding historical sources, they draw an outline of the materiality of *Tværs* for its teenage callers in the late 20<sup>th</sup> century. Since the referenced material predates common use of mobile phones, listeners could contact the phone-in from either the telephone booth or their

homes where landline phones were located, and the examples show aspects of these choices for listeners who contacted *Tværs*.

As we will see, the public or private character of using a telephone booth or home telephone is rarely straightforwardly one or the other. This conversation between Tine Bryld and a listener calling from a telephone booth in the street, for instance, offers a glimpse into the difficulties of accessing the phone-in from a public location:

**Caller** ehm then you think I guess you just sit at home Saturday evening and (0.5) yes

**Bryld** did you not think that you could do something about it?

**Caller** nah

(5.0) ((sound of glass breaking, voices and noise in background))

**Bryld** what is that noise behind you?

**Caller** oh well that is (0.5) they have just finished playing bingo (1.5)

**Bryld** are you in a bingo hall?

**Caller** hehe no I am out on the street

**Bryld** do you play bingo sometimes?

**Caller** no

The example is taken from a conversation between Bryld and a 19-year-old caller that took place in 1992. In all probability, the caller's telephone booth provided only minimal shielding from the surrounding public soundscape (which was clearly audible in the conversation), since the doorless booth had replaced the closed telephone booth in 1982 (Fogh, 1998). The classic 1932 Danish telephone booth design offered privacy in the form of opaque glass windows in a closed structure but, as booths were used less for long conversations, new open designs placed less emphasis on the booth's function as a private space in the public.

As the bingo hall empties near the caller, the conversation about the caller's loneliness is steered off course as Bryld looks for meaning in the intrusive noise. We cannot know how the caller felt about having a sensitive conversation 'on the street.' Still, one indication of how talking from a telephone booth meant conversations were co-shaped by the materiality of their site is that it took eleven minutes of a sixteen-minute broadcast conversation and relentless pressure from Bryld to bring up the caller's actual issue. It was an eating disorder, which they then had little time to address.

Another example illustrates some specifics of calling from a home phone: in 1978, a ninth grade girl (14-15 years) wanted to study to be a teacher, but her blue-collar family disapproved and teased her for it. She would have been an ideal caller for *Tværs* but, instead, chose to tell her troubles to the automatic telephone tape recorder used in *P4's* music-request segment *P4 pop*:

I do know that I should phone in to tværs with this (.)  
but it is so hard to get to phone in to tværs (1.0)  
because my mom she is always at home  
sunday evening and my dad is too (.)  
and I can't just phone in to tværs  
when they sit in the living room (.)  
and I don't really have the courage  
to go to a telephone box (5.0)

The caller's message testifies to the lack of privacy associated with the home telephone in 1978. During the few Sunday evening hours telephones were open to *Tværs's* listeners, this caller never had the phone to herself, so she made the (common) decision to call the tape recorder instead. She says the public phone booth, as an alternative passage to the radio, takes 'courage'. It is not without complications, as also demonstrated in the first example.



These two examples represent technology's typical appearance in *P4*, being relatively brief, rarely spanning more than a minute. We will, therefore, focus next on a third *Tværs* conversation taken from the chronological middle of the sample. This conversation allows us to study the specificity of the telephone in phone-ins in greater detail.

A Sunday evening in April 1984, *P4*'s host on that night, Karsten Sommer, introduced a conversation between Bryld and a 12 or 13-year-old female *Tværs* caller with these words:

**Host** here is the first tværs with a girl who needs girlfriends (.) hh  
but-uh it also shows something about her parents  
and respect for other people h  
because it is a conversation with obstacles

The following quote shows the 'conversation with obstacles' as broadcast immediately after *Tværs*'s jingle:

**Caller** um well the problem is (.) I don't have any girlfriends (0.4)  
really.

**Bryld** hm (2.8) ((low noise)) how long have you been upset that  
((clicking))  
you don't have any girlfriends?

**Caller** um (.) three months or something like that  
((noise))

**Bryld** well ((scratching sound)) there is a lot of c-crackle on my line  
is it there on yours too?

**Caller** yeah (.) that's someone listening in.

**Bryld** who is that?

**Caller** yeah I think it is someone (.) one of my parents

**Bryld** well h but you know what (.) don't you think we could talk  
alone a little bit because it is very hard let me tell you  
the crackle is in my head all the time.

**Caller** yes

**Bryld** perhaps you could just tell your mom that we need to talk  
alone for a little bit

**Caller** yes (.) just a second

**Bryld** yeah

((phone being put down, muffled voices))

**Bryld** well (.) was she upset that you are calling in here, do you  
think?

**Caller** yes because I don't think she is very happy about it

**Bryld** yes ((thump-sound)) but you know what you can try telling  
her (.) that it's always easier to talk to someone other than  
your parents about something like that

In this conversation, initially about friendship, a parent (here, Bryld assumes it is the mother, which is later confirmed) is listening in on the conversation using one of the household's other telephones. The mother's eavesdropping becomes audible in the conversation because her telephone interferes, causing a crackle on the line between the caller and Bryld, just as their conversation is beginning.

We do not have access to many details about this conversation's material foundations, but to specify what little is known, the caller does not seem to have access to a telephone in her own room, assuming she has one, and has phoned *Tværs* from a communal room, such as the hallway or living room, since her mother knows about the call. We know as well that they own at least two telephones, but that these are on a shared outgoing line, allowing anyone to eavesdrop using another telephone. As shown in Figure 1, this was common in 1984.

Drawing from historical sources, in the history of the landline phone's spatial privacy, 1984 brought callers access to light, transportable landline phones (the last heavy magneto phones with built-in batteries were taken off the market in the 1970s), probably with a coiled cord as first depicted by KTAS in the F68-model from

1968 (Møller, 1981, p. 67). This would give the speaker some flexibility of physical position, but not allow her to move far. This caller might have had access to a phone with a long cord but, had she used it to move to a private room, the cord's path would still have allowed the mother to eavesdrop using the family's second phone by signalling that the phone was in use and where the caller was.

At this point in the conversation, questions about the perception of the home phone present themselves. One might ask why the mother finds it acceptable and necessary to listen in and why Bryld did not react more strongly to the intrusion. For now, however, we will leave the perception of the phone for the following section and concentrate on the spoken content and materiality of the conversation.

In the conversation, Bryld cautiously chooses not to address the mother's surveillance directly, but minimizes the intrusion's character as well as their conversation by saying that the caller 'perhaps' could say to her mother that they 'need to talk alone for a little bit':

- Bryld** it is nothing to do with not liking one's parents (.)  
it has something to do with it being a bit difficult to talk  
about things like that with your parents right?
- Caller** yeah
- Bryld** yeah  
((low static sound))
- Bryld** do you think they are there again?
- Caller** no
- Bryld** well (.) let me hear (.) you say you have not had any  
girlfriends the last couple of months?

In the above quote, we see the conversation immediately following where we were last. The mother's potential eavesdropping is still a presence in the conversation, but Bryld nevertheless seems

understanding of the mother's breach of phone privacy because she avoids addressing it directly ('do you think they are here again?') so that she and the caller can resume their talk. Because she had only a few hours to talk to callers each week, time was a factor, and Bryld was very proficient at keeping the conversation on (her perception of) a caller's main issue.

For approximately seven minutes, the conversation about the caller's loneliness continues, interrupted occasionally by crackles, clicking sounds on the line, loud talk and interferences from the caller's family. Bryld's questions focus on the caller's introvert nature until the caller states that she does not see her friends because she has to help out at home a lot:

**Caller** I have a lot I have to do

**Bryld** like what?

Bryld at first seems unconvinced, and immediately challenges the caller with a question (line 2). But as the caller explains, Bryld's tone becomes more concerned. This marks a turning point in the conversation as they begin to talk about the caller's home situation:

**Bryld** are you a lot of people?

**Caller** no (.) we are a lot (.) two

**Bryld** two children?

**Caller** yes ((thump sound))

(1.0)

**Bryld** hello?

(3.8)

hello?

(2.5)

((click, beep sound))

**Caller** sorry I need to use the telephone

**Bryld** hello?

**Caller** yeah

**Bryld** well where (.) how is it that we are cut off

**Caller** they need to use the telephone h

**Bryld** but tell me (.) don't they ever let you talk a little when you need to?

**Caller** yes sometimes

**Bryld** but not always?

**Caller** no

When the conversation, which clearly was troubling for the caller's mother, turns to conditions at home as a cause for concern, the conversation is cut off. We then briefly hear the caller telling someone at her side that she needs to use the telephone before responding to Bryld.

As the caller returns, for the first time during the conversation, Bryld leaves the subject of friendship troubles to address the caller's inability to access the phone when she needs to talk. But the caller is now only interested in ending their conversation:

**Bryld** you know what (.) you don't have anyone you could go to and talk from here

or next Sunday (.) couldn't you find a place to call from

**Caller** um no I cannot

(1.3)

**Bryld** do you live in the countryside?

**Caller** no

(1.2)

**Bryld** but next Sunday right?

**Caller** yeah

(0.4)

**Bryld** you could try and see if you could call me again (.)

either from home or from someplace else

and we could talk some more because it is important this

issue with one's girlfriends (.)

it is very important you get to talk about this (.)

**Caller** yeah

(0.5)

**Bryld** and tell then your parents that it is- it is not that you don't want to talk to them

(.) but it is easier to talk to someone else (.)

**C** yeah

**B** about things like that

**C** yeah

(0.6)

**B** my children feel the same way

**C** yeah

(0.4)

**B** so ↑ we'll say that?

**C** yeah

As we see in this final part of the conversation, despite many efforts by the concerned Bryld to engage the caller or arrange another conversation (she could call later, she could call next Sunday, she could call from a different place), the caller is now evasive and answers mostly with the uncommitted 'yeah.' These exchanges follow a different structure from the previous conversation, as the caller's one-word answers and pauses to address someone in the room suggest that her mother is now standing beside her, pressing the caller to end the conversation on the pretext that someone else needs to use the telephone.

What makes this development in the conversation between Bryld and the caller so disruptive is the specificity of talk in *Tværs*. As Law and Moser establish, the materiality of words have to do with the speakers' position, whether they face each other, or don't (Moser & Law, 1999, p. 6). In *Tværs*, as in radio in general, the absence of visual cues makes talk dependent on audible cues from both conversation participants, and if one party is silent, his or her

presence and participation is uncertain. We hear this when Bryld is 'left alone' in the previous quote, and can only wait and ask 'hello', until she has new auditory cues from the other end of the phone line. Similarly, as the caller becomes unwilling to engage in the final part of the conversation, Bryld can only hope to influence the caller to try calling again under other circumstances, as the caller is no longer allowed to use a central part of her passage to *Tværs*, the telephone.

### **Opening radio's black box: Reflections on the conversations**

I don't like (.) that they cry (.) because I think that they are so lonely when they stand there and cry in a telephone booth [...] but I give what I can to take that distance away between us and (.) I hope that they can feel that time and place stops (.) a moment and we forget that there is a telephone between us

These words by Bryld, played as an introduction to *Tværs* in 1992, draw our attention to the fact that her connection with listeners is dependent on, but can also happen in spite of, technology. Bryld presents the telephone as an obstacle, something that must be made transparent if her connection with a listener is to succeed. She raises necessary questions about the condition of possibility for the phone-in as relating to the material 'telephone between us.'

I find the 'conversation with obstacles' interesting as an example because, to borrow an analogy from ANT, it functions like the opening of a black box. The technology is *foregrounded* because of a problem or breakdown that allows us to better understand its functioning in 'normal' radio interactions where, as just described by Bryld, technology is becomes transparent. But in the case of this conversation, technology's intrusion becomes a useful tool for gaining insights into how technology functions when we do not notice it, like the everyday 'telephone-for-talking.' The 'conversation with obstacles' underlines the fragility of such mediated interactions.

We could say that the young girl is using the telephone to converse with the *Tværs*'s host, but their talk shows that the situation is much more complex. It involves technologies whose privacy and ownership are not to be taken for granted and whose purpose and meanings are contested among its users, as we will shortly see.

As mentioned, *Tværs*'s progressive views on issues like sexuality were new in a Danish media context, and this provoked some listeners. Although this provocation may explain the mother's initial wariness of her daughter's call, the telephone's history in Denmark might supplement such an understanding of the conflict that took place in the conversation.

From its introduction, the home telephone was traditionally placed in the entrance or hall for practical reasons. Firstly, space was needed to keep the battery of pre-1930s phones (in a piece of furniture or on the wall). Secondly, the home's entrance facilitated phone wire connection, which originally had to be drawn to each subscriber individually, making installation near the front door practical. But, most importantly, placement of the telephone offers insights into how the technology has been perceived over time. When the caller's mother and her generation placed their telephones in a shared room like the hallway or living room, they gave everyone access, but demarcated it from the home's intimate and personal areas. Accordingly, the telephone could not easily be regarded as a private or social communication technology. One source of this perception of the telephone is illustrated in early Danish publications on good manners, where advice against its private use almost turns to threats:

Of course one does not talk of secrets or intimate matters per wire. It can have dire consequences. Neither can you entertain endless conversations on the telephone. Three minutes must be the rule. (Agathe, 1931, p. 21, my translation)



Aside from early promotions of the technology as being for business matters and brief messages (Wistoft, 2007), another factor in the perception of the telephone was its early dependence on operators. As seen in Figure 1, the automation of manual telephone exchanges was completed in the late 1970s. A large number of *Tværs*'s listeners in its early years – and probably all of their parents – would have experienced the intermediary role of the operator as a necessary part of telephony, which had some disadvantages regarding privacy: 'The nature of telephone technology in its early days allowed the operator to eavesdrop [...] it also gave telephony one of its enduring characteristics – the absence of privacy' (Aronson, 1977, p. 33). Mayer supports that this is 'one of the reasons older people have never come to regard the telephone as an extension of self [...] when they began using the phone they constantly required mediation by an operator' (1977, p. 242). The phone's gradual move towards private spaces and mobility tells a story of the technology's gradual personalization, but some of its users would have perceived the technology as non-intimate and non-personal.

In this account of telephone placement and perception, we have arrived at an interpretation of the conflict between the caller and her mother that centres on conflicting perceptions of the telephone's use and purpose. The mother, experiencing the telephone as potentially non-personal, listens in on her daughter's account of her troubles as an operator could once have done. And, while her daughter's willingness to discuss personal problems with a radio host over the telephone clearly disturbs her, the final straw is the caller's ensuing account of life at home, because it marks the conversation's transition into her mother's 'backstage', to use Goffman's term (Goffman, 1956).

As the telephone's introduction unsettled customary ways of dividing the private person and family from the public setting of the community (Betteridge, 1997; Marvin, 1988), the phone-in's

combination of telephone and radio was a contested newcomer to family life in the late 20<sup>th</sup> century. In our conversation, Bryld's reaction tells us something about the commonness of the mother's approach to *Tværs*'s format: the host does not appear shocked or surprised, but readily offers several suggestions on how the caller could persuade/avoid her parents and contact *Tværs* again.

While the 'conversation with obstacles' shows a 'bad' passage between a caller and the radio in all its specificity, the data also illustrates how technologies influence each other. The old passages from communal rooms, with their many potentially disabling functions, are gradually replaced by new passages, where fewer arrays have to be secured in order for the adolescent caller to reach the radio. In this way, the phone's gradual move into teenage bedrooms is also shifting the content of what can be said on the radio, as the transistor radio had once revitalized radio for the teen audience. As younger callers gradually became more successful in reaching the radio host, thereby achieving a status as able and autonomous subjects, their perception of the telephone nudged radio phone-in conversations towards becoming more private, redefining the medium and the genre.

### **Perspective and conclusion**

This study of the telephone in phone-in radio has argued the importance of a material perspective with which to supplement the focus on language and symbols in radio studies. In an analysis of the example entitled 'a conversation with obstacles,' I demonstrated how the materiality of the caller's home supported her mother's surveillance and intrusion. The conversation was interpreted in light of the transformation of the home phone during the late 20<sup>th</sup> century. We see how several perceptions of the technology appear and clash during the conversation, most notably between the teenage caller and her mother, whose opposing views of the phone complicate their approach to the radio phone-in.

The utopian concept of ‘the teenager’ as it was introduced in the United States in 1944 (Savage 2007: 452-453) defined it as a group for which an independent area demarcated from both childhood and adulthood was necessary. The market rapidly translated this characteristic to consumer products targeting teens, but the demarcation also involved teenagers’ emotional development and spatial need for privacy. In my depiction of the sociomaterial character of the teenage process of gaining a sense of self as an able and autonomous subject, the emancipation promised in the late 20<sup>th</sup> century by the phone-in collided with the materiality of listeners’ homes and the perception of the telephone as non-personal. Through *Tværs*’s format, in which the telephone acts as a necessary passage to the programme, *Tværs*’s producers are assuming that ‘the listener’ has access to a telephone, and performs this as the normative subjectivity of their listeners. In other words, despite the emancipatory promise of a phone-in such as *Tværs*, the sociomateriality of calling in to the programme could create passages that performed exactly the opposite: callers as ‘un-able’ subjects.

Looking beyond 1984, it is tempting to argue that the ensuing increase in mobile and private communication technologies represents a redistribution of power balances in the home. Particularly, the introduction of social media could be seen as a fulfilment of the phone-in’s promise. Teenagers’ use of smartphones and an array of other ICTs (information and communication technologies) have, after all, made them increasingly independent of the materiality of their home spaces. *Tværs* still exists on public service radio as a Sunday evening programme, but also as a podcast, a website under DR’s main site ([dr.dk/tvaers](http://dr.dk/tvaers)) and a page on Facebook. Not only can *Tværs*’s callers leave the communal rooms of their home, which might still be occupied by parents on Sunday evening, but the telephone is no longer a necessary passage to *Tværs*. Today, instant but non-time-sensitive ICTs, such as emails, messages on Facebook/Twitter and telephone text messages also offer access.

It is clear that these new sociomaterial passages to *Tværs* perform a different subjectivity, but we may have exchanged the old difficult passages for new ones. Although, today, private ownership of a smart phone is less ambiguous than a shared landline phone, using it to chat on Facebook, for instance, opens a new arena of questions about the specificities of that passage. Some studies conclude that teenagers navigate social media like Facebook without privacy-issues (West, Lewis, & Currie, 2009). However, aside from the ‘consensual’ surveillance stemming from the increased inter-visibility (Trottier, 2012) of teens’ relations and actions, parents have many non-consensual options that are analogous to the mother’s in the ‘conversation with obstacles’: gaining access to passwords and private online activities such as emails and private messages, tracking a person’s location through a mobile phone’s GPS and implantation of tracking chips.

Further considering the case of *Tværs* and its relevance to contemporary media interactions, one observation that could be made when compared with this study’s data is that ‘bad’ passages in today’s media appear smoother and less transparent. No telephone line crackle betrays the mother or father who reads their child’s private email or Facebook messages, or the systematic surveillance performed by government actors, and this presents an acute challenge for studies of the sociomateriality of online interactions and the arrays that secure or do not secure them.

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# **Constituents of a Hit Parade. Perspectives on the digital archive and listener participation in *P4 i P1's Det elektriske barometer***

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## **Journal**

MedieKultur

## **Abstract**

Due to their historically inaccessible nature, public service broadcasters' media archives have primarily lent themselves to internal reflection, while historical contextualisation of the cultural heritage in these archives has been broadcasters' prerogative. In this study, digitalised material from the Danish youth radio programme *P4 i P1's Det elektriske barometer* forms the basis for an experiment in how access to digital archives can inform humanities scholarship. We argue that one important implication of the new digital archives is that they enable approaches that are independent of broadcasters' own narratives, as they offer the possibility of autonomous study of large quantities of material. The character of listener involvement in *Det elektriske barometer* in relation to Carpentier's concept of *participation* (2011b) is approached from a micro, meso and macro-level, to explore how different approaches to digital archives can provide new answers to media's self-presentation.

## **Keywords**

Digital humanities, radio, participation, archive, critical theory

## **Introduction**

As accessible digital archives are replacing the previously dispersed and nearly inaccessible broadcaster archives, academics in a broad range of fields are debating the consequences and potentialities of this situation. As stated by Jensen, the scarcity of analyses of the content of the radio programmes in Danish media histories testify to "a black hole," as "researchers historically have had very limited access to the archives harbouring them" (Jensen, 2012, pp. 306-307). The years of the no-access period may have come to an end due to media political initiatives and external research funding in recent years.

Thus, this study has been made possible due to the digitisation and access to the Danish Broadcasting Corporation's (DR) audio-visual archives. The following article forms an experiment into how access to such a digital archive and the use of research software can inform humanities scholarship. We argue that one important implication of the digital archive is that it enables approaches that are independent of broadcasters' historical narratives, in that it offers an autonomous study of large quantities of media archives' content.

The notion of "accessibility" plays a key role in this study, not only with regards to the audio-visual archive, but also with regards to its content. Although the tendency towards an increased inclusion of users seems intimately associated with the digital technology and digital cultures unfolding within our society, the rapid change of the media landscape, the history of including users dates back to the analogue period, and is founded in a political, emancipatory understanding of media. Bertolt Brecht's vision of radio as a device for two-way communication from the early 1930s is the most famous example of this early understanding of media (Brecht, 1986, org. 1932), which was rediscovered and became part of the political project in the beginning of the 1970s.

Most important in this context is the essay "Constituents of a Theory of the Media" (org. "Baukasten zu einer Theorie der Medien,"1970)

by German Hans Magnus Enzensberger, which was published in Danish in 1971. Taking its point of departure in the Marxist theories of the Frankfurt School, Enzensberger's essay became very significant in intellectual circles. It also influenced a number of journalists in the Danish public service broadcaster Danish Broadcasting Corporation (DR)<sup>29</sup>. Parallel to and possibly affected by this influence, DR's departments throughout the 1970s experimented with programme concepts where the active listener participation in the production itself was essential. *Båndværkstedet* (*the Tape Workshop*) where, following a training period, people were given access to recording equipment and an opportunity to plan and produce their own radio broadcasts is maybe the most important example of these experiments (Ebbesen & Wanscher, 1974). Even though the productions from *Båndværkstedet* took place within the frame of the state monopoly, these experiments were rather radical, and focused on the listeners' own ideas and radiophonic expressions. In that perspective, *Båndværkstedet* may be seen as a continuation of the confrontation with the elitist and paternalistic state broadcasting service. A confrontation that started in the beginning of the 1960s and which as its goal had a greater democratisation of the media.

However, we will here focus on a second example of this development, which had a greater effect on and more lasting role in Danish media: the establishment of Børne- og Ungdomsafdelingen (the Department for Children and Youth) – better known as B&U – in 1968. The very establishment of an independent department that focused on the lives, dreams and problems of children and youth was a sign of a fundamentally new understanding of the role of the state broadcasting service. We therefore turn to the B&U Department and a number of attempts to incorporate democratic principles in the programme production itself, especially in the programme *P4 i P1* (hereafter *P4*), which between 1973 and 1997 was broadcast on the

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<sup>29</sup> S. Samsøe in interview with Mette Simonsen Abildgaard, 2007

radio channel P1 for three hours on Sunday night. Our focus will be on "the listener-determined hit parade," *Det elektriske barometer* (hereafter *DEB*)<sup>30</sup>, in which listeners were encouraged to vote by mailing in postcards and letters. Of all *P4*'s segments, *DEB* most explicitly sought out listener participation with a specifically democratic purpose. The segment was introduced in *P4* in 1986 and remained a part of the programme until 1997. Afterwards the hit parade became its own programme and is broadcast today on the radio channel P3, as a podcast and online on DR's website.

In an effort to explore the possibilities that emerge from such an opened archive, (and how to approach them) the concept of "participation" (Carpentier, 2011) becomes a testing ground to which this study applies three approaches enabled by digitalised material. We then see how these approaches provide possible answers to the character of listener involvement in media.

The study of *DEB*'s listener involvement will thus be carried out by means of three interrelated analyses. First, a micro-level analysis is directed at the host's representation of the individual listener's letter to the hit parade. Second, we consider the role of the letter at the meso-level of the whole segment; i.e., the linguistic, rhythmical and tonal staging used by the hosts when reading listeners' letters on air. Third, at the macro level, we analyse the segment's development over time, from 1986-1996, to examine the possible development in the hosts' use of letters and listener inclusion in *DEB*. This final quantitative analysis tests the scope of the qualitative analyses and adds a historical contextualisation to the overall analysis.

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<sup>30</sup>*DEB* translates directly to *The electric barometer*. Despite the awkward wording, for accuracy's sake we translate its slogan "den lytterbestemte hitliste" to "the listener-determined hit parade."

## Method

Until recently, this study's empirical material was only available on reel-to-reel tapes and DAT-tapes in DR's radio archive, and on copy tapes at the Danish State Library. However, through the research project LARM Audio Research Archive ([www.larm-archive.org](http://www.larm-archive.org)), which today provides access to a digital radio archive of more than 1,000,000 hours of audio, a large sample of *P4*'s estimated 4,500 hours of broadcasts was digitalised.

The sample was designed as a representative crosscut of *P4*, consisting of two programmes from the same days each year from the entire span of *P4*. This amounts to a total of 167.5 hours broadcast over 44 Sundays (excluding 1997, since *P4* ended before the sample days). When, in three cases, DR's archive was incomplete on the sample day, the programme from the following available week was chosen instead. The digital sample was transferred to the qualitative analysis software NVivo 10. Here, the material was listened to, briefly described in writing and coded descriptively in, for instance, programme segments, talk versus music, readings of listeners' letters versus the host talking. This enabled us to isolate 20 hours and 23 minutes of *DEB*-material, distributed on 21 programmes.

In the segments, quotes from 255 listener letters, selected by *DEB*'s editorial staff, were read aloud. It is worth mentioning that we did not have access to the original letters, only to the sections of the letters that were read during *DEB*. Likewise, we have no knowledge of other components of these letters (illustrations, handwritten or typed, possible connection between the requested music numbers and the wording of the letters, etc.). This is therefore not a study of what listeners chose to write to *DEB*, but rather a study of which letters were chosen by the programme staff, and how those were used during the segment.

After becoming familiar with the material, we developed a set of "data driven" (Boyatzis, 1998) codes to systematise *DEB*'s content. The codes denoted letters that contained, for instance, "connections between music and letter" or "listener idealising childhood." In the process of coding the letters, we developed an interest in material that could address the character of listeners' involvement in *DEB*, and chose to focus on material in which the presentation of a letter displayed the power balance between host and listener, or in which listeners addressed *DEB* as democratic. This material then became the starting point for the study's micro and meso-level analyses. We thus approached the archive inductively, as has become common within digital humanities, but fully recognise the "lure of objectivity" (Rieder & Röhle, 2012, p. 70) in this, and acknowledge that we operate based on pre-conceptions that affect the questions we ask and what we look for in the material.

To enable a conversion of the empirical material to data suitable for quantitative analyses of developments in *DEB*, all the coded material – which is automatically marked by time codes in NVivo – was exported with indication of each letter's starting time, finishing time, total duration, radio host and date and made into graphs in the statistical software SPSS. For the qualitative analyses, exemplary quotes from listeners and hosts were transcribed with symbols from "conversation analysis" (Hutchby & Wooffitt, 2008) to illustrate emphasis, pause, speed, and volume. The material was then translated from Danish to English as literally as possible, except where minor modifications were necessary in order to preserve conversational style.

### **If *DEB* involves listeners, is it participation?**

Before we turn to *DEB*, it is worth dwelling on the notion of "participation," which, as a theoretical term, seems to incorporate the

present study's perception of listener involvement. However, as observed by Carpentier (2011a), "participation" within media studies today is more popular than it is well defined. Carpentier thus argues in favour of a clearer and differentiated use of the word, to clarify what is meant when we talk about, for instance, "participatory radio." In the AIP model (Carpentier, 2011a, p. 30), he defines the concept in relation to "access", for instance, in the sense of "access to media contents and technologies," and "interaction", which among other things, deals with the possibility of selection and co-production of content. Although these concepts constitute the conditions of possibility for participation, the key concept for Carpentier is power. This power relation can be measured when testing for the existence of co-decision for the user/listener. Thus, collaboration on even terms is a key aspect for this understanding of participation "because of its concern with the inclusion of the people within political decision-making processes" (Carpentier, 2011a, p. 14).

When participation is used synonymously with access and interaction as a general term for "the listener's access to the media," one does not – according to Carpentier – recognise that there are many possible articulations of participation. A politically oriented participation concept such as Carpentier's includes a continuum of possible ways of relating to listener participation, from minimally representative democratic models to maximal democracy perceptions, which may be inspired by Marxism. This provides for a more nuanced analysis of the nature of listener involvement in *DEB*.

From the outset, *P4*'s editors presumably decided upon a format for *DEB* without input from the listeners. The principle was simple: In the letters, listeners could suggest/vote for five songs for the hit parade, but they could not vote for just anything. They had to choose from the ten songs from the previous week, as well as the four "testers," which the new songs of the week were called. Listeners could suggest songs for those testers, but they were ultimately chosen



by *DEB*'s editorial staff. A song's maximum duration on the list was 12 (and later 10) weeks.

This description already raises a number of questions about the nature of the roles of the listener and the host in *DEB*. Carpentier asserts that participation is always situated and involves specific players, and he argues in favour of the need to deal with participation at all levels: "Participation is not limited to one specific societal field (e.g. 'the economy'), but is present in all societal fields and at all levels. The contexts that these different fields and levels bring into the equation are crucial to our understanding of any participatory process" (Carpentier, 2011a, p. 24).

In order to accommodate a broad field of these participatory contexts, this study consists of an analysis of listener participation in *DEB* at three levels. One factor that cuts across those levels, however, is media technologies, which influence the nature and possibility of participation. The letter, which is used in *DEB*, has a history in *P4* that dates back to the beginning of the 1970s. In the first *P4*-programme, listeners were thus encouraged to send letters to a variety of segments instead of calling in. As a familiar technology, the letter was offered as a safe alternative to listeners who – the hosts believed – would not otherwise have the chance to participate in the programme.

In the early *DEB* segments, letters or postcards functioned exclusively as voting ballots. Listeners would later include personal stories, but this was not anticipated in 1986. The letter format was likely chosen because it was an easy way to communicate listeners' intended contribution to the segment: a list of five votes for the songs of the week. In relation to that function, a letter may be visually skimmed, more text may be added in connection with the counting of votes and it can be easily sorted in visual stacks. This is contrary to recorded messages, which one can rarely listen to at anything other than normal speed, while sorting votes or making comments are time-

consuming and require editing equipment. Although the choice of letters at this point seems to relate mainly to *DEB* as a hit parade, the letter affects *DEB*'s presentation of the listener on the radio and the segment's later development. Exemplified by *P4*'s broad use of the technology, we see how the letter obtains status as a safe and personal communication channel in society, formally represented by the secrecy of correspondence, a common legal principle (Desai, 2007). As an established "safe" technology, letters could thus comfortably embrace the personal content, which would later mark *DEB*.

In order to qualify the applicability of Carpentier's participation concept in relation to *DEB* and the nature of the listener participation in the segment through use of the letter, we shall, in the following, look at the situated nature of listener involvement. Our first approach deals with listeners' presence in *DEB* as mediated through the host's reading of their letters.

### **The Threefold Mediation of Listeners' Voices in *DEB***

Letters presented a possibility for professional control of *DEB*'s entire sound universe, which led to a remarkable break from the legacy of the 1970s emancipatory listener participation: One of the most important innovative features of *P4* was the use of the automatic telephone tape recorder in *P4 pop* and the use of the telephone in *Tværs* (Abildgaard, forthcoming, submitted). Both segments became representative of the 1970s political emancipatory ideals for listener participation in radio, in which teenagers were encouraged to become independent from parents, schools and other authorities. In this rebellion, listeners could hear the voices of their peers in the same situation conveyed on the radio through the telephone and recorder, where the crackling "telephone acoustic" (Crisell, 1994) guaranteed their authenticity.

This description of the authentic telephone voice aesthetics as the quintessential example of the emancipatory vision of the 1970s is important for understanding the listener interaction for which *DEB* became the exponent in the mid 1980s. Both *DEB* and *P4 pop* focused on involving the teenage audience by way of their interest in music, but *DEB's* aesthetic was oriented towards achieving a perfectionist smooth sound, rather than the crackling authentic telephone acoustics.

When *DEB* breaks away from the emancipatory aesthetics and ideology of *P4*, the question arises: How is the listener's role in the segment to be understood? In an article about the British radio programme *Our Tune*, Montgomery describes how the host Simon Bates' representation of the letters from the listeners includes interposed sentences where "the discourse turns back on itself to comment on or evaluate something as it is being said" (1991, p. 164). This is done in order to mark the distance between the narrator of the letter and the radio host. Here Montgomery refers to Goffman's concept of "footing," which describes this change in the narrator's position:

A change in footing implies a change in the alignment we take up to ourselves and the others present as expressed in the way we manage the production of an utterance. A change in footing is another way of talking about a change in our frame for events (Goffman, 1981, p. 128).

Such shifts in alignment happen constantly in everyday conversation. The host of *DEB* will at times speak as a representative of the public broadcast corporation DR, at times as the host of *DEB*. However, for radio hosts in programmes such as *Our Tune* and *DEB*, the situation is distinct because some of what the host says refers to or quotes the texts of their listeners. In *DEB*, the host would often read directly from the listener's letter with minimal paraphrasing in the 3rd person. The majority of the letter was thus read in the 1st person, where the

host's "I" represented the listener, as in the following, when Astrid from Hillerød approaches the host Dorte:

hi barometer-peter I almost said (0.4)  
hey ho here I come  
and I (.) that is astrid from hillerød who continues (.)  
dew drops in the hair (.) grass in the mouth (.)  
hundred per cent invulnerable  
squeeze the air out of life (.)  
fill the senses (.) with sensuality  
how are you dorte (.) is it cool (.) is it good (.)  
is it life-affirmingly hot to be the barometer hostess  
are we good at dreaming on the air (.)  
or what do you have spring flowers in the studio (0.5)  
I wonder what you think about  
when you turn yourself off (.)  
and turn on (.) the music  
1996-05-05

The rapid narrative and the upbeat background music chosen by the host Dorte seek to capture the hectic and energetic note of this letter. The reading takes place at the very beginning of the programme and could be perceived as a radio host's classic introductory pep talk.

Inherent in *DEB*'s format for reading letters is thus a close coupling of host and listener, and – unless the host clearly signals her footing – there is a risk of confusing the host-narrator with the listener-narrator. The problem is likely something Dorte is aware of in her performance of the letter. In the above example, the shift in footing makes it clear who the letter's author is, as Dorte, in an interposed sentence (line 3), indicates that she speaks on behalf of Astrid, and will continue to do so for a while.

The following letter from Per read by the host Inge illustrates another part of the host-narrator's representation of the listener's voice on *DEB*. It illustrates how the direct recital on *DEB* facilitates other and more complex changes in footing than the marking of the host, which Montgomery identifies in *Our Tune*. Here, there is no potential confusion of the listener-narrator and the host-narrator; instead, Inge uses different voices to change footing in relation to the various persons in the listener's story:

((Madonna's "Like a Prayer" plays in background))

homework pouring in

and no time to listen to the birds sing

or look at beautiful spring girls

who enjoy the warmth of the summer

while eating a soft ice

((MC Einar starts playing in background))

the girl I am slowly falling in love with has a boyfriend

and thinks it is super cool to gossip with her girlfriends

((changes voice to the gossiping girl))

look at that guy he is crazy about me what an idiot

((changes voice to Per))

oh god how can you be so stupid

1989-05-07

Here, the host's change of footing adds a layer to the nature of the story, as it is loyal to the letter writer. The gossiping girl's voice has a high, sneering tone which reflects the narrator's sympathy for Per. Per's voice is marked by a change to a deeper tone which signals his gender and exhaustion from the situation.

In addition to the tone of voice and the direct linguistic indication of the narrator of the story, the music also plays a key role in relation to the *DEB* host's change of footing. According to Goffman, adjustments regarding whom the speaker represents may be difficult to perceive if you do not see the person face-to-face (Scannell, 1991, p. 150). Changes of voice from deep to high and changes of tone – from sneering for the gossiping girl to exhausted for Per – are important elements in the above example. However, the example's music also acts as an important character, as it helps underline the changes in tone and emphasise the spoken words. We hear it in the shift from the pop song by Madonna to MC Einar's rap music, which has likely gotten a vote from Per, as an introduction to Per's private story.

Another element in the analysis of footing changes relates to the previously mentioned close coupling between host and listener, created through the 1st person narrative. This does not necessarily mean, however, that the host assumes a loyal listener-footing. Instead,

through his/her representation of the listener-narrator, the host may take a disloyal position:

dear barometer-host writes anne in aarhus (0.5)  
are you aware  
of all the brutal slaughtering of native americans  
that have happened over time  
I am writing a history assignment about this (.)  
and I almost get tears in my eyes (0.4)  
reading about some of the stuff that has happened (0.4)  
and still happens (0.5)  
it is scary that people have been wiped out  
from their own country  
in this way (0.6)  
I hope the world will soon open its eyes  
to everything I am reading about (0.6)  
otherwise the last native american will die  
1991-05-05

The above is an example of how the host, Mikael Bertelsen, reads a letter from a listener who is worried about the fate of the Native Americans. The letter is about why we don't react to some of the injustices in the world. However, in the host's accentuation of the

listener's "I" in the second to last line of the quotation, the footing changes, and in a break from the representation of the listener heard in the beginning of the letter, the serious tone transforms into an ironic remark about self-importance: If the whole world did as *I* do, all problems would be solved. Thus, when the host Mikael emphasises the word "I," it may paradoxically be seen as him distancing himself from the implied "we" which is present when, in his own voice, he reads another person's thoughts out loud. The ironic distance is typical of Mikael's presentation of himself, and this type of disloyal representation of the words of a listener in the segment is an example of the complex changes in footing that are part of *DEB*'s format.

In this close analysis of narratives of listener letters, footing appears as a strong instrument for the host. *DEB*'s threefold mediation (through the letter, the radio host and the radio) is thus a format with a marked imbalance in the distribution of power, as the listener has no influence on the way in which her text is represented. A negative or sceptical host may destabilise and contradict the story of the letter writer, while a sympathetic host will support it. The fact that we are emphasising one example of a disloyal narrative out of 255 letters in the sample does not signify that this is typical for the majority of the narratives – indeed it does not apply to more than a handful of letters. However, the analysis does point to a power distortion in the fundamental structure of *DEB* that is apparent in the way listeners' letters are represented in the segment. The letters represent no *participatory* involvement of the listeners, in Carpentier's definition of the term. However, the reading of listeners' letters provides a possibility for mediated listener *access* to and *interaction* with *DEB*.



## Critical dialogues in DEB

In order to discuss the consequences of the appropriation of the listener's voice, we will now expand our focus from the representation of the listener in the individual letter to the status of listener participation at the programme level.

The majority of the letters read in *DEB* gives the impression that the listeners were dedicated and supportive of its format, hosts and music. However, sometimes the listeners took a critical stance towards DEB. This critical dialogue often focused on the representation of the listener by the host or on the selection of songs that could enter the list. This opens a different perspective regarding the segment's participatory nature. Here, the very structure of *DEB* is up for critical inquiry in a discussion in which listener and host take an explicit stand.

In the following example from 1991, host Kenan Seeberg read a letter from the outraged listener Lars, who wrote:

I don't believe you are familiar  
with the concept of <democracy> at P4 (0.8)  
if the list really belongs to the listeners (.)  
why then- or one should be able  
to vote freely for anything (0.6)  
and why do you succumb (.)  
to record companies' release policies  
by (.) only testing new singles  
and why are you making listeners believe (.)

that you can only save the world  
from imminent destruction .h  
if they write on recycled paper (0.4)  
boycott the barometer  
the listeners only write (.)  
to beg for a gift certificate  
from the studio hosts anyway (.)  
who only sit in the studio anyway  
to get their part of the license fees (.)  
and not out of compassionate interest  
1991-11-03

Lars's criticism concerns *DEB's* self-identification as democratic – based on the catch phrase "the listener-determined hit parade" – and he questions how the editors in a self-proclaimed democratic programme can, in advance, establish narrow guidelines for the music allowed on the hit parade. In his answer to this criticism, the host Kenan begins with a counter-attack by sarcastically asking why someone who is so critical finishes his letter by using his "right to vote." Kenan thus underlines what *DEB's* democracy is made of: All listeners have a "voting right."

In answer to the question of why *DEB's* list is not co-determined by listeners to a higher extent, Kenan states:

and then I can say just briefly  
that the testers are a mix of listener proposals  
and the host's preference  
because we in here like music too  
because (.) DR already has a sales-based  
hit parade called top twenty (0.7)  
because we are not dansktoppen  
1991-11-03

Kenan's reply signals that *DEB*'s hit parade is democratic in a minimal representative sense, as it is first and foremost designed to be in alignment with DR's existing programme offers and expert evaluations of what "we in here" want. The danger is – it appears – that if the listeners were to decide without input from the preference of the host, *DEB* would end up as *Dansktoppen*, a listener-determined hit parade which features the 'dansktop' genre: Danish language pop/schlager music. The music genre not only represented the taste of listeners' parents and grandparents, but often their lowest common denominator. Kenan thus seems to legitimise *DEB*'s minimal democracy by means of the classic argument against maximal, direct democracy: it would empower the uninformed mass.

If we return to the listener Lars's criticism, he actually identifies two problems with *DEB*'s listener participation. One is the lack of listener empowerment in *DEB* as a democratic programme. The other problem, which is brought up in the final part of Lars's letter, concerns the lack of "compassionate" interest of the host for listener letters: it is a criticism directed at the intentions of *DEB*'s hosts when

using extracts from the letters as components of the programs overall structure. This criticism is not addressed in Kenan's answer, but is addressed and treated in more depth here in a segment where Mikael is the host:

((Sonic Youth's "Sugar Cane" plays in background))

in the last barometer I was so lucky

to have my letter read

writes stefan from herlev

but the happiness is short-lived

when you discover that the imbecile host

has raped your (.) letter

and abbreviated it to nothing (0.6)

to provide a tasteless connection

between the song (.) he speaks over

I am sorry if I abbreviated your letter too much

and missed the point Stefan

(.) but that happens sometimes

when you try to get the words

and the music to melt into one

(.) in a live radio broadcast

((("Sugar Cane" fades out,

Nirvana's "Oh The Guilt" plays during speech))  
the barometer would be nothing without your (.)  
or the words of others (.)  
>but sometimes there simply is not room for it all<  
and then the letters change in pace  
with the music and the stop watch  
but that does not mean I sit here  
playing absolute ruler (0.4)  
for all of you who try to help  
make the programme  
more intelligent and <meaningful>  
because that's the most important thing (.)  
that nirvana tonight (.) is number four  
with oh the guilt (0.5)  
that's interesting (0.3)  
but it has to come second  
((vocal begins in "Oh The Guilt"))

1993-05-02

What the listener, Stefan from Herlev, has experienced, is precisely the difference between interaction and participation in Carpentier's use of these concepts. On one hand, he expresses his satisfaction

about being able to participate in *DEB* with his letter, but on the other hand, he does not feel represented. The letter from Stefan touches upon a central aspect of *DEB*, as one of the core premises for the segment and implicit radio aesthetics accompanying it is that it must establish a natural progression which – with its relaxed everyday speech, contemporary music and seemingly spontaneous presentation of listener letters – can become an effortless part of a young listener's Sunday night.

13.

3.02.

Tænk hvis der stod "Barometerdreng" tatoveret i nakken på alle de drenge der skriver ind til Det Elektriske Barometer - så ville jeg kun score dem - for de er altså dybere og mere sjældne end de almindelige fyre her i Kjellerup - skriver Mona der i aften får tildelt "Frimærkelegatet" for at være en trofast skrivende lytter hver eneste uge.

I det næste halve år - er portoen betalt - når der skal fortælles historier fra den lille flække.

I sidste barometer var jeg så heldig at få mit brev læst op, skriver Stefan fra Herlev - men kort er glæden når man opdager at den imbecile vært har voldtaget ens brev og kortet det ned til ingenting - for at lave en plat sammenhæng med den sang han snakker henover.

Du må undskyldte hvis jeg gjorde dit brev blev alt for kort og uden pointe - Stefan - men det kommer til at ske nogengange når man prøver at få ordene og musikken til at smelte sammen til 1 ting i et direkte radioprogram.

(3.52)

---

CD: NIRVANA: OH THE GUILT. CD/2. Indlytes til: 0.03.

Var: 3.17.

---

0.00.-0.25.

Barometret ville ikke være noget uden dit og andres ord - men nogle gange er der simpelthen ikke plads til det hele - og så forandrer brevene sig i takt til musikken og stopuret.

Men derfor leger jeg ikke enehersker over dem der prøver at hjælpe til med at gøre programmet intelligent og indholdsfyldt. For det er det vigtigste - at Nirvana i aften ligger på en 4. plads med Oh The Guilt - det er da interessant - men det må komme i anden række.

(0.25)

Picture 1: Manuscript excerpt

In his response to Stefan, Mikael stresses that listeners' letters are the most important element in *DEB*, and mildly rejects the idea that his handling of Stefan's letter indicates a general tendency. However, let us take a closer look at the documents accompanying the broadcast in the archive. Mikael's manuscript from that evening, May 2nd, 1993, when he replies to Stefan from Herlev, is represented in Picture 1 in a photographic reproduction.

The transcription above begins in the 3rd paragraph of the manuscript, and it appears from the manuscript that Mikael has noted beforehand everything which he is going to say and do in relation to the letter and the accompanying music. He has marked the duration of the Nirvana track (3:17), when his technicians shall start it (between "direkte radio program"/"live radio programme" and "Barometeret ville"/"the Barometer would," or 3:52 after the start of the previous track), and for how long he is going to talk over the track before the vocal begins (0:25).

If you compare our transcription of the segment with the manuscript, it by and large plays out as planned. The difference between what is actually said and the text of the manuscript is minimal and limited to a different sequence of words and the interjection of a few words. The control of the spoken word is thus very pronounced in this excerpt.

As can be seen from the above transcription and manuscript, Mikael explains that Stefan's letter is handled this way because it is difficult to produce a live programme while considering both the music and the time. He then underlines that listeners' letters are more important than the music, which "must come second." He claims this in a narrative, which – as we can see – is closely aligned with a song by Nirvana. The song begins while Mikael, addressing the listener, says that the Barometer would be nothing without letters. He finishes at the exact time the vocals of the song start, which is the classic spot for a radio host to stop talking and fade up the music. It may be true that listener letters are more important to him than the music, but the

manuscript shows that the *DEB* format structures and determines the way he handles a letter from a listener.

As a "listener-determined hit parade," *DEB* is open for the potential of public participation, and offers the listener an opportunity to influence the position of the hit parade's tracks. This reflects features from the maximalist democratic participation ideology, where democratic participation is defined as a social dimension, which is not limited to the political system (Carpentier, 2011b, p. 17). Thus *DEB* includes a participatory element that is clearly distinct from "access" or "interaction". The voting does, however, only constitute a democracy at a minimally representative level, as *DEB*'s editors alone determine the featured music. At the same time, listeners' letters are selected for the segment in a process which does not involve the listeners, and where the listeners have no co-determination with respect to the role that their letter will play in *DEB*. On the level of the individual segment, this seems to indicate that the listener is involved in a minimally participatory process, as the listeners' involvement – in spite of the maximalist democratic ideals incorporated in the segment – is characterised by a great imbalance between the power of the listener and the power of the host/programme editors.

At this level, the contract between listener and host in *DEB* consists of the fact that portions of the listener's letter may be included as a constituent in a rigid composition. This composition does not necessarily disregard the general expression and contents of the letters, but listeners' letters will invariably have a low priority as a consequence of the consideration for the overall production of *DEB*.



## **The flamboyant, minimal and listener-focused host**

We have just established that, at the level of the individual programme, letters in *DEB* were being down-prioritised for the segment's music. The next question is whether the imbalance in the power structure, which was uncovered in the previous analysis, is also reflected in *DEB*'s inclusion of the listener over a longer time period. To investigate the participatory nature of listener participation beyond the individual programme, the focal point will now shift to a primarily quantitative longitudinal macro perspective in order to uncover the composition of the segment over time, with focus on the role of the host in the design of *DEB*.

To initially delimit how much latitude the host has at her disposal for reading letters aloud in a given segment, we will take a look at the segment's fundamental elements, which make up the core format of *DEB* over time:

- Segment duration: fluctuates between 1 hour and 35 minutes to 47 minutes in first two years, then finds a steady level at approximately 56 minutes.
- Music: the hit parade's 10 songs plus four weekly new testers. These tracks must at minimum be played during *DEB*.
- Summarisations: continuous summarisations of the week's hit parade and a conclusive summary.
- Information: information about *DEB*'s postal address and at least one explanation of how listeners can participate in voting.
- Recurring sound clips: *DEB* jingles and idents.

The space in which the host may perform the listeners' letters is thus marked by a number of formal limitations. To work with more concrete sizes, our point of departure will be the standard within pop music that a track shall be approximately three minutes long, which is

based upon the classic 10-inch 78-rpm single (Chanan, 1995). This means that about 42 minutes of music would be played in the segment. However, as *DEB* typically represents "alternative music," the average duration of the music tracks has likely been longer, although this duration in reality would be considerably reduced by the use of fading, talking over tracks and the use of "radio edits," (i.e., shorter tracks produced for the radio). In the above example of a manuscript from *DEB*, we saw how the segment was planned in detail before the live broadcast. Thus producing a radio programme with around 42 minutes of music plus a number of regular elements within a 56-minute timeframe would logically create a need for running *DEB* as a tight composition.

If we look at the longitudinal development of the time during which the host actually read letters from the listeners in *DEB* (Figure 1), we see that for the first two years (1986 and 1987), the host spends just a

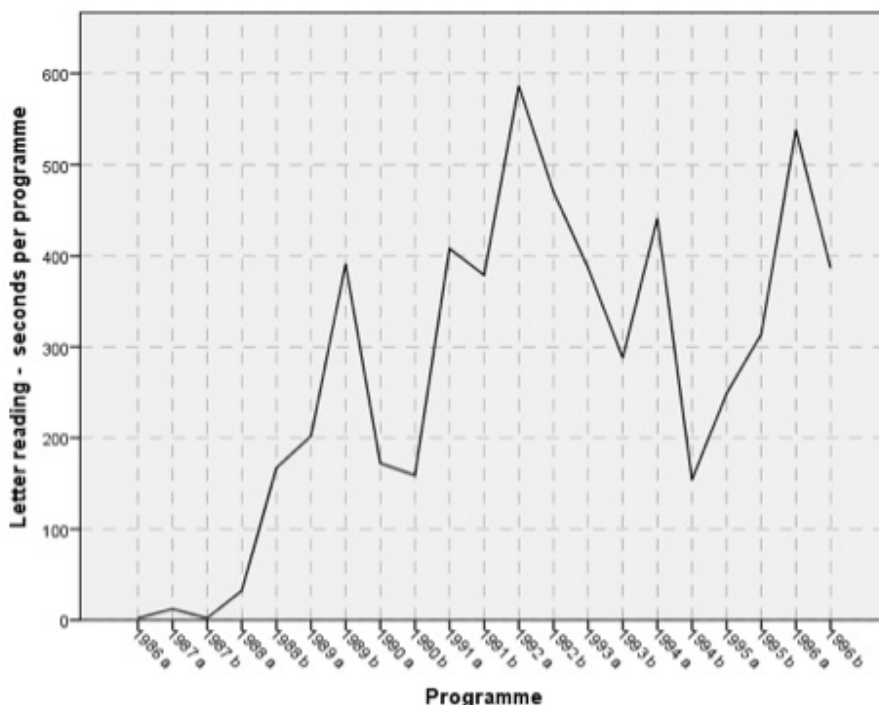


Figure 1: Letter reading per programme in seconds

few seconds per segment reading letters. Later, reading fluctuates, but after 1989 it rarely falls below 200 seconds or three minutes and 20 seconds.

The above overview of the regular programme elements, which in principle occupy the entire airtime, provides a plausible explanation of why, during the first two years, such a minor share of *DEB* was spent on reading letters. This cannot, however, explain the dramatic increase in the amount of airtime spent on letters in 1989.

In our search for an explanation for this development, we will have to return to the fact that the letters in the first segments were meant as the listeners' way of voting. In the second *DEB* ever, (the first opportunity for the listeners to respond) the host, Karsten Sommer, encouraged listeners to participate as follows:

uh and you can vote for five songs of-  
the fourteen we have (0.3) played  
I hope that as many as possible want to participate  
because the more who bother the more (.)  
exciting the list will be  
and now this is it for tonight  
take care  
1986-11-09

The host does not – as in later segments – encourage the listeners to tell him something about themselves or their thoughts on the music they vote for, and the listeners write only brief messages. In the same segment, Karsten mentions just one listener message. It is a brief note

from "lena petersen in hillerød" regarding the band Gnags being on the list:

she wrote on her envelope

hurray for the danish

1986-11-09

Another element of this early downplaying of listener participation involves how one chooses to define the role of the host. *P4*'s hosts were key figures who tied programme segments together, introduced music and acted as hosts in certain segments (for instance, studio talks with guests). In the first *DEB* segments, *P4*'s programme host continued as host in *DEB*. When *DEB* got its own host from 1987 onwards, this marked an important step in the design of the segment's identity.

One of the first *DEB* hosts was the singer Elisabeth Gjerluff Nielsen, who hosted in 1987 and 1988. She introduced listeners to a flamboyant persona, Countess Hedvig, with an interest in belly dancing and a gossip-loving, nobility friend named Pusser:

we have a lot of records at stake

both in pusser's pop gossip quiz

and the barometer itself (0.5)

so get your note-taking device now (0.7)

then countess hedvig will repeat the list for you

while we listen to some (.)

<relaxing turkish belly dance music> (0.4)

>which by the way is something we attend

during evening classes every thursday<

(.) pusser and me

1987-11-01

Elisabeth represents a host-centred version of *DEB* that involves a fictive universe and persona and does not leave much room for listeners' letters. This is seen in Figure 2, which shows the average time various hosts in *DEB* read listeners' letters aloud in an entire segment, with the hosts listed in the same chronological order as they appear in the sample.

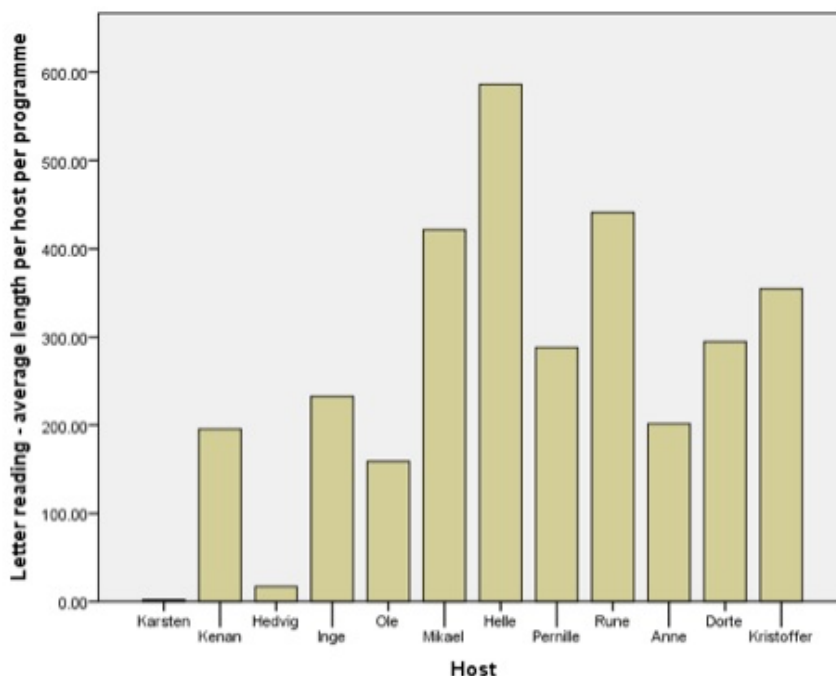


Figure 2: Hosts' average time spent reading letters per programme in seconds

In Figure 2, we see how Hedvig/Elisabeth spends 17 seconds on average; significantly less than the other hosts. The only one who got near Hedvig's prioritising of listeners' letters was the first host of the segment, Karsten, who – as mentioned above – includes almost no letters. The others spent between 159 and 411 seconds reading aloud, i.e., between three and seven minutes. Kenan, who hosted *DEB* as early as May, 1987, spent only six seconds reading letters in his first *DEB* (see Figure 1), but hosted the segment for many years, and therefore obtained an overall average of 196 seconds or approximately three minutes, similar to the later hosts.

As it appears from Figure 2, Hedvig's heavily host-centred version of *DEB* is not the standard after 1989. Neither is Karsten's minimal interaction with listeners. Rather, a more listener-focused type of host, who reserves about five minutes total to read listeners' letters, becomes the norm. We also see how time spent on reading letters hits its maximum when Helle Helle, as host in the beginning of the 1990s,

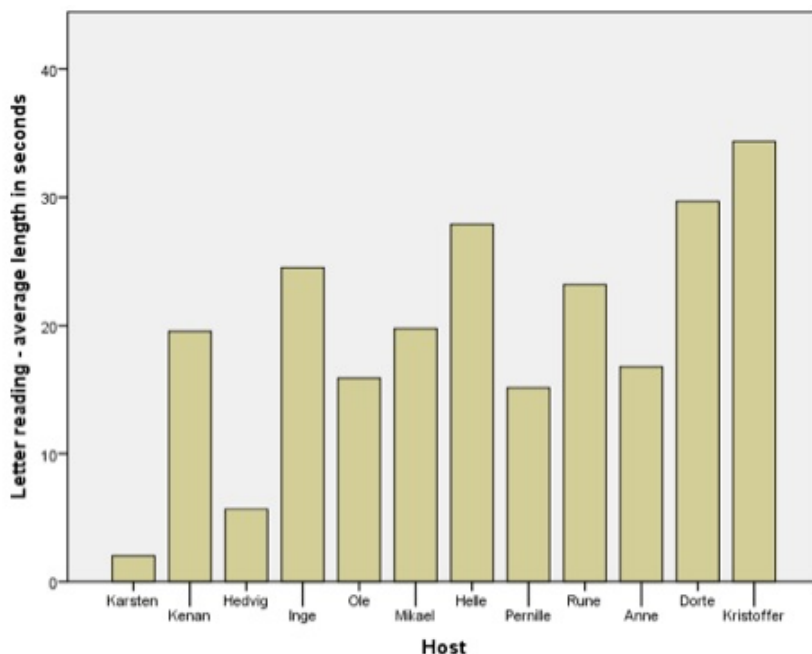


Figure 3: Hosts' average time spent reading one letter in seconds

spends approximately 10 minutes. If we return to the previous list of structural requirements for the segment, it is indeed difficult to see how a host would be able to spend more than 10 minutes on letters while adhering to *DEB*'s format. After Helle's record, reading letters stabilises at a level which (with some fluctuations) amounts to approximately 316 seconds. Five-minute inclusions of listener letters thus becomes the standard version of *DEB*.

Figure 3 may help us get closer to understanding what kind of host emerges in *DEB* over a period of ten years. In this figure, describing how long (on average) the hosts read from the individual letter, the 12 hosts are again listed in the same chronological order as in the sample.

If we compare the information from Figures 2 and 3, it will be clear that there are several overlaps between hosts who spend a relatively long time reading letters during a whole segment and hosts who spend a long time reading each individual letter. This is interesting, because it demonstrates the appearance of a listener-centred type of host who allocated a lot of time to listeners' letters in the production of the segment, while also spending a long time reading the chosen letters. This is especially true for Inge, Helle, Dorte and Kristoffer. At the opposite end, Karsten and Hedvig are again found at the bottom, while Kenan breaks the pattern for the three previous hosts, as he in later years spends a long time on the individual letter, which lifts his total average.

As the longitudinal analysis of the role of the host in *DEB*'s design shows, structural requirements add an upper limit to the amount of time that may be spent on letters in *DEB*. However, it is not structural changes in the amount of tracks on the list, which lead to longer letters from the listeners and the host's increased emphasis of the letters in *DEB*. Rather, a qualitative shift in the perception of the segment and the host's role seem to take place.

The role of the radio hosts in *DEB* changes in a participatory process, which takes place over a decade in an interaction between listeners and hosts. It cannot be characterised as a process that takes place with equal co-decision-making on the part of the listener, as *DEB*'s editors undisputedly decide which and to what extent listener letters are to be included. On the other hand, *DEB* could not gradually have placed greater emphasis on the listener-created content if listeners had not written letters with personal stories, expressing ardent attitudes towards and thoughts about the music on the list. Thus it is clear that through changed interaction practices and longer and more personal letters, *DEB*'s listeners contributed to a thorough redefinition of *DEB* over time, in which its hosts grew more oriented towards providing space for the many listener letters in the segment and at the same time gave priority to the individual letter's presentation.

## **Conclusion**

In a three-tiered analysis of the nature of *DEB*'s listener participation, we have shown how, at the level of the individual letter, listener participation is limited by *DEB*'s threefold mediation of the listeners' voices. This leaves the representation of the listener in the segment completely up to the host's interpretation, and *participation* does not provide an accurate description of the representation of listeners who are not co-decision-makers. Rather, listeners must be said to have *access* through the letters and to *interact* with *DEB* in a mediated form. At the programme level, listener letters are – together with the other regular elements – part of an overall design which is undisputedly decided by *DEB*'s host, although listeners, through their letters, are guaranteed a certain influence on the ranking of the hit parade's songs.

Contrasting these meso and micro-level analyses with a longitudinal analysis, we showed how *DEB* included participatory processes at a



low level, as the programme editors and the hosts largely determine the segment's development. However, listeners were seen to hold some influence on *DEB*'s development through their letters, as they provided crucial inspiration for the segment's changing focus over time.

In this analysis, participation in media emerges as a complex process that exists at various levels of *DEB*, depending on whether the segment is considered from a micro, meso or macro perspective. In spite of *DEB*'s self-presentation as a "listener-determined hit parade" and inspiration from the maximalist democratic participation ideology, *DEB*'s listener participation can best be described as minimally participatory, since those parts of the segment that include participatory processes are characterised by "the existence of strong power imbalances between the actors" (Carpentier, 2011b, p. 354).

Within a digital humanities approach, Carpentier's concept of participation has thus proved to be a useful tool with which to critically question media's self-presentation. It seems a particularly fitting notion to introduce in a study based on material from a digital audio archive, which also, on a structural level, challenges broadcasters' earlier unilateral status with regards to presenting and interpreting their archives as cultural history.

The assumption that media producers and consumers should be critical towards media as "ideological state apparatuses" (Enzensberger, 1970) is, however, not necessarily a perspective shared by *DEB*. Rather, the segment illustrates a development in the perception of media participation that took place during the last three decades of the 20th century, in which mass media moved away from emancipatory left-wing ideas about democracy. Therefore, the concept of participation, and critical theory as its theoretical foundation, only facilitates a partial understanding and characterisation of *DEB*, whose aesthetic – a smooth, perfect and

professional sound universe – places it far from the authentic and gritty expressions of the 1970s.

An extension of our study of participation in *DEB* – which can only be outlined here – comes from the phenomenological media historian Paddy Scannell. In *Radio, Television and Modern Life*, Scannell distances himself from media critical approaches, which regard media as institutions reproducing the status quo (p. 151), since these approaches fail to account for the central structure of the broadcast media: “dailiness”.

The broadcasting calendar creates a horizon of expectations, a mood of anticipation, a directedness towards that which is to come, thereby giving substance and structure (a 'texture of relevance') to everyday life (Scannell, 1996, p. 155).

*DEB's* orientation towards the joys and sorrows of its young listeners and the smooth and professional representation of the listener through the host is a pursuit of the essence of dailiness: to be a weekly, safe companion for teenagers during a period in which they go through a rapid development with few points of reference.

Scannell's perspective also concerns participation, but it is a different, more apolitical understanding of participation as media's involvement in and co-shaping of their audiences' daily lives. In *DEB's* self-perception, it is therefore not necessarily a problem that listeners do not co-determine the segment's format, the selection of or reading of their letters. It *is*, however, critical when a listener's letter, as quoted earlier, questions the host's compassion, because the letter, as an element in the segment's production, becomes subject to the hit parade's music.

To hide its “care structures” (the care for the listeners inherent in the detailed planning of a programme so that the result will appear

natural and sincere) (Scannell, 1996, p. 144 ff) is a task that *DEB* shares with all TV and radio programmes. However, for *DEB*, there is the special circumstance that its listeners act as co-producers of its content and therefore have an unusual insight into its constituents. The fundamental challenge for *DEB* was and is thus to produce a hit parade based on its basic constituents, the music and the letters, without revealing the care structures in its minutely planned performance, which is the foundation for the experience of *DEB* as an authentic "listener-determined hit parade."

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## Abstract in Danish

Denne antologiske ph.d.-afhandling er en undersøgelse af udviklingen i lytterinvolvering og teknologi i ungdomsradioprogrammet *P4 i P1* fra 1973 til 1996. Ved sin start i 1973 var *P4 i P1* et nyskabende bud på radioproduktioner for unge og eksperimenterede særligt med de lytterinvolverende radiogenrer, der i afhandlingen benævnes 'tilgængelig radio' ('accessible radio'). Som en del af LARM Audio Research Archive projektet, der løb fra 2010-2013, har projektet taget udgangspunkt i en stor mængde digitaliserede radioudsendelser fra DRs radioarkiv.

Projektets empiriske materiale er en serie af *P4 i P1*-udsendelser produceret af DRs B&U-afdeling. Over årene var *P4 i P1* fra 3 til 5 timer langt, afhængig af mængden af programindslag. Det betyder, at der blev sendt omtrent 4.500 timers radio under overskriften *P4 i P1* før programmet blev taget af æteren 1. april 1997. Ud af disse tusindvis af timer har dette projekt taget udgangspunkt i et sample, der er designet med det formål at repræsentere det typiske *P4 i P1*-program. Samplet består af to programmer sendt de samme dage hvert år i den periode programmet eksisterede (eksklusiv 1997, da programmet sluttede inden de to samplede dage). Det udgør i alt 167,5 timers radio sendt over 44 søndage.

Afhandlingen består af tre forskningsartikler, der hver omhandler et markant programindslag i *P4 i P1* og indslagets tilknyttede kommunikationsteknologi; breve i Det elektriske barometer, telefonen i *Tværs* og beskeder på en automatisk telefonsvarer i *P4 pop*.

Trods bred anerkendelse i medieforskningen generelt er teknologiens betydning ofte underspillet eller overset i forskning i radio og lyd. Artiklen om *P4 pop* adresserer denne mangel i et longitudinalt studie af radiolyttere og radioværter brug af en 'automatisk telefonbåndoptager'. Artiklen viser, at de to grupper udviklede en række brugspraksisser i deres anvendelse af den automatiske telefonbåndoptager mellem 1973 og 1996. Særligt den bekendende brug ('confessional use') fremkom som programindslagets mest markante

træk på trods af, at den indeholder en paradoksal syntese af offentlige og private elementer. I artiklen foretages en analyse af forandringer i brugeres perception af teknologi over tid indenfor rammen af fænomenologisk medieforskning med mediehistorikeren Paddy Scannell som vigtigste repræsentant overfor filosoffen Don Ihde og det fremkommende felt postfænomenologi. Afslutningsvis formulerer jeg i artiklen et sociomaterielt perspektiv på radio som 'det intime medie' hvis formation forhandles over tid i en multistabil proces mellem teknologi, lyttere og radioværter.

Artiklen om *Tværs* diskuterer fastnettelefonens historiske betydning i telefonrådgivningsprogrammet på baggrund af et kvalitativt studie af *Tværs*-telefonsamtaler. I en STS (science and technology studies)- tilgang til telefonprogram-genren giver begrebet 'passage' fra Law and Moser (1999) en teoretisk ramme indenfor hvilken telefonrådgivningsprogramsamtaler kan forstås som formet i en sociomateriel proces. Artiklens empiriske materiale tager udgangspunkt i projektets store sample af *P4* i *P1*-udsendelser. Eksempler på telefonsamtaler i *Tværs* og en kortlægning af telefonens nyere historie i Danmark fremviser telefonen i radio som en historisk foranderlig teknologi der, i familiers liv i det 20. århundrede, ændrede sig fra at være en ikke-personlig teknologi brugt i fællesområder til teenagerens personlige teknologi brugt til private samtaler. Artiklen konkluderer, at hovedudfordringerne for emancipatoriske telefonprogrammer som *Tværs* var hjemmets materialitet og telefonens ambivalente privatlivs- og ejerskabsstatus, og sporer dette perspektiv til nutidig online overvågning.

I artiklen om *P4* i *P1s* *Det elektriske barometer*, skrevet med Erik Granly Jensen, udgjorde digitaliseret materiale fra programindslaget grundlaget for et eksperiment i, hvordan adgang til digitale arkiver kan udvikle 'digital humanities'-feltet. Grundet deres historisk utilgængelige karakter har public service medieudbydere primært brugt deres arkiver til intern refleksion, mens historisk kontekstualisering af kulturarven i disse arkiver alene har været medieudbyderes privilegium. I artiklen argumenterer vi for, at en vigtig implikation af de nye digitale arkiver er,



at de muliggør tilgange der er uafhængige af medieudbyderes egne fortællinger, da digitale arkiver åbner for autonome studier af store mængder materiale. Lytterinvolveringens karakter i *Det elektriske barometer* i relation til Carpentiers begreb 'participation' (2011b) bliver i artiklen behandlet fra et mikro, meso og makroperspektiv, for at udforske hvordan forskellige tilgange til digitale arkiver kan byde ind med nye svar på mediers selvfortælling.

På mikroniveau er analysen i artiklen rettet mod radioværtens repræsentation af den individuelle lytters brev i hitlisten. Dernæst overvejes brevets rolle på det samlede programindslags mesoniveau brevets rolle, og de sproglige, rytmiske og intonale iscenesættelser, som værterne benytter sig af under oplæsning af lytterbreve. På makroniveau analyseres programmets udvikling over tid, dvs. 1986-1996, og udviklingen værternes anvendelse af lytterbrevene og lytterhenvendelsen som sådan kortlægges. Artiklen konkluderer, at participation i medier er en kompleks proces, der eksisterer på forskellige niveauer i *DEB*, afhængig af om programmet betragtes fra et mikro-, meso- eller makroperspektiv. Det digitale arkiv udgør derfor en vigtig forudsætning for at kunne studere sådanne komplekse udviklinger i mediers indhold over tid.

Ud over de tre artikler består afhandlingen af en sammenfattende redegørelse, der er struktureret efter artiklernes fælles fokusområder arkivet, tilgængelighed (accessibility) og materialitet. Den sammenfattende redegørelse behandler projektets metodologiske tilgang i kapitlet 'Archive', som forholder sig til arkivet som en vigtig bestanddel af afhandlingen. Både som den arkiviske logik der har formet det materiale jeg har arbejdet med, og de konkrete arkiver, projektet har trukket på. I kapitlet indgår en detaljeret redegørelse for de kodekategorier, der fremkom under arbejdet med *P4 i P1*-materialet, der i digital form blev eksporteret til det kvalitative analysesoftware NVivo, og de overvejende induktive kodestrategier, der er benyttet i afhandlingens tre artikler.

Spørgsmålet om tilgængelighed eller accessibility behandles i den sammenfattende redegørelse under kapitlet af samme

navn, hvor der argumenteres for at Carpentiers begrebsæt 'access', 'interaction' og 'participation' (2011a) anvendes til en samling af de mange radioformater, der inddrager og historisk har inddraget lytteren, under genrebegrebet 'tilgængelig radio' eller 'accessible radio'. I kapitlets historiske redegørelse for programmets fremkomst og sammensætning beskrives tilgængelighed som en central bestanddel af *P4 i P1*-udsendelserne. Her skildres, hvordan *P4 i P1*'s tilgængelige radio må forstås som koblet til programmets konceptualisering i DRs B&U-afdeling, såvel som emancipatoriske idealer i 1960'erne og 1970'ernes politiske venstrefløjsbevægelse og mediehistoriske omstændigheder som introduktionen af en ny radiokanal, P3, for ungdommen.

Den sammenfattende redegørelse indeholder også en behandling af afhandlingens teoretiske hovedkilde i afsnittet om materialitet; fænomenologien og teknologifilosofien. Det præsenteres, hvordan Heidegger og hans grundlæggende forståelse af verden som begrebet gennem teknologi er en af afhandlingens centrale figurer, da adskillige af de teoretiske perspektiver der anvendes i artiklerne (Paddy Scannells mediefænomenologi, Don Ihdes postfænomenologi) har et Heideggeriansk ophav. Afsnittet om materialitet beskriver dog også hvordan mine studier af radio bryder med arven fra Heidegger, særligt i brugen af Ihdes teknologirelationer (Ihde, 2009). Afslutningsvis argumenterer jeg for at det fænomenologiske perspektiv på medietilgængelighed og teknologi med fordel kunne udvides med en alternativ ontologi, der i højere grad tager højde for muligheden for distribueret subjektivitet. Dette perspektiv findes blandt andet i Aktør-netværk teorien og anvendes i afhandlingens artikel om *Tvær*, hvor det fænomenologiske fokus på relationen mellem subjekt og verden afløses af Law og Mosers passagebegreb og dets inklusion af en række ikke-humane aktører og deres betydning i eksempelvis medieinteraktioner.

## Abstract in English

This anthological PhD dissertation is an examination of the development of listeners' involvement and technology in the youth radio programme *P4 i P1* from 1973 to 1996. At its beginning in 1973, *P4 i P1* was an innovative example of youth radio and especially experimented with the listener involving radio genres, which in the dissertation are termed 'accessible radio'. As a part of the LARM Audio Research Archive Project, which ran from 2010 to 2013, the project has taken its starting point in a large quantity of digitalised radio broadcasts from the radio archive of the public service provider Danish Broadcasting Corporation (DR).

The project's empirical material consists of a series of *P4 i P1* broadcasts that were produced by DR's B&U (Children and Youth) Department. Over the years, *P4 i P1* was between three to five hours long, depending on the amount of programme segments. This means that approximately 4,500 hours of radio under the name *P4 i P1* were broadcast before the programme was taken off the air on 1 April 1997. From these thousands of hours, this project has taken a sample designed with the purpose of representing the typical *P4 i P1*-programme. The sample consists of two programmes sent on the same days each year in the period the programme existed (excluding 1997, as the programme ended before the sample days). This makes up a total of 167.5 hours of radio broadcasts over 44 Sundays.

The dissertation consists of three articles written for peer-reviewed journals that each deal with one significant programme segment in *P4 i P1* and its associated communication technology: letters in *Det elektriske barometer*, the telephone in *Tværs* and messages on an 'automatic telephone tape recorder' in *P4 pop*.

Despite wide recognition in media studies, the significance of technology is often understated or overlooked in radio and sound studies. The article on *P4 pop* addresses this absence in a longitudinal study of uses by radio listeners and radio hosts of the 'automatic

telephone tape recorder' (AT\*TR). The article shows that the two groups developed a range of uses for the tape recorder from 1973 to 1996 and that confessional use, despite its paradoxical synthesis of public and private, particularly emerged as the significant feature of the segment. In the article, an analysis of changes in users' perception of technology over time is performed within a phenomenological media studies framework with the media historian Paddy Scannell as its most important representative, opposite the philosopher Don Ihde and the emerging field of postphenomenology. Conclusively, I formulate a sociomaterial perspective on radio as the 'intimate medium' whose formation is negotiated through time in a multistable process between technology, listeners and radio hosts.

The article about *Tværs* discusses the home telephone's historical significance in the radio phone-in genre based on a qualitative study of telephone conversations in the segment. In an STS (Science and Technology Studies) approach to the genre, the concept of 'passage' from Law and Moser (1999) provides a theoretical framework for understanding radio phone-in conversations as shaped in a sociomaterial process. The study's empirical material derives from the dissertation's large sample of *P4 i P1* broadcasts. Examples of telephone conversations in *Tværs* and a charting of the recent history of the telephone in Denmark portray the telephone in radio as a historically evolving technology which, in late 20th-century family life, changed from being a non-personal technology used in common areas to the teenage user's personal technology for private conversations. The article concludes that the emancipatory phone-in genre's main challenges were the materiality of the home and the telephone's ambiguous privacy and ownership status. This research also traces the issue of media talk privacy to contemporary online surveillance.

In the article on *P4 i P1's Det elektriske barometer*, written with Granly Jensen, digitalised material from the Danish youth radio programme forms the basis for an experiment in how access to digital archives can inform humanities scholarship. Due to their historically inaccessible nature, public service broadcasters' media archives have

primarily lent themselves to internal reflection, while historical contextualisation of the cultural heritage in these archives has been broadcasters' prerogative. In the article, we argue that one important implication of the new digital archives is that they enable approaches that are independent of broadcasters' own narratives, as they offer the possibility of autonomous study of large quantities of material. The character of listener involvement in *Det elektriske barometer* in relation to Carpentier's concept of 'participation' (2011b) is approached from a micro, meso and macro level to explore how different approaches to digital archives can provide new answers to media's self-presentation.

First, a micro-level analysis in the article is directed at the host's representation of the individual listener's letter to the hit parade. Second, we consider the role of the letter at the meso level of the whole segment, that is, the linguistic, rhythmical and tonal staging used by the hosts when reading listeners' letters. Third, at the macro level, we analyse the segment's development over time, from 1986 to 1996, to examine the possible development in the hosts' use of letters and listener inclusion in *Det elektriske barometer*. This final quantitative analysis tests the scope of the qualitative analyses and adds a historical contextualisation to the overall analysis.

Besides the three articles, this dissertation consists of a dissertation summary, which is structured according to the articles' shared focus areas: the archive, accessibility and materiality. The summary treats the project's methodological approaches in the chapter 'Archive', which relates to the archive as an important factor in the dissertation. This project has drawn from both in the sense of the archive as an archival logic, which has shaped the material with which I have worked, and the concrete archives. The chapter includes a detailed account of coding categories that appeared while working with the *P4 i P1*-material, which in digital form was exported to the qualitative analysis software NVivo, and the predominantly inductive coding strategies that were employed in the dissertation's three articles.

The question of accessibility is treated in the summary under the chapter of that name, in which it is argued that Carpentier's

notions of ‘access’, ‘interaction’ and ‘participation’ (2011a) can be used to gather those many radio formats, which include and historically have included the listener, under the genre term ‘accessible radio’. In the chapter’s historical account of *P4 i P1*’s emergence and composition, ‘accessibility’ is described as a central part of the programme’s broadcasts. Here, it is portrayed as how the accessibility of *P4 i P1* must be understood as connected to the conceptualisation of the programme in DR’s B&U Department as well as the emancipatory ideals of the 1960s and ‘70s political left-wing movement and media historical circumstances such as the introduction of a new public service radio channel, P3, for the youth.

The dissertation summary also contains a discussion of the dissertation’s theoretical key source in the chapter on materiality: phenomenology and the philosophy of technology. Heidegger – and his foundational understanding of the world as understood through technology – is one of the central figures in the dissertation, considering several of the theoretical perspectives used in the articles (Paddy Scannell’s media phenomenology, Don Ihde’s postphenomenology) have Heideggerian ancestry. The chapter on materiality, however, also describes how my studies on radio depart from the Heideggerian inheritance, especially through my use of Ihde’s technology relations (2009). Finally, I argue that the phenomenological perspective on media accessibility and technology could benefit from an expansion in an alternative ontology to a greater degree incorporating the idea of distributed subjectivity. This perspective is represented, for instance, in the actor-network theory and is employed in the article on *Tværs*. Here, the phenomenological focus on the relation between subject and world is replaced by Law and Moser’s concept of ‘passage’ and an inclusion of an array of non-human actors and their significance in media interactions.