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**Sound technologies and cultural practices: how analogies make us listen to transformations in art and culture**

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# Contemporary Culture

New Directions in Arts and Humanities Research

Edited by Judith Thissen, Robert Zwijnenberg and Kitty Zijlmans

Amsterdam University Press

The series *Transformations in Art and Culture* is dedicated to the study of historical and contemporary transformations in arts and culture, emphasizing processes of cultural change as they manifest themselves over time, through space, and in various media. Main goal of the series is to examine the effects of globalization, commercialization and technologization on the form, content, meaning and functioning of cultural products and socio-cultural practices.

New means of cultural expression, give meaning to our existence, and give rise to new modes of artistic expression, interaction, and community formation. Books in this series will primarily concentrate on contemporary changes in cultural practices, but will always account for their historical roots.

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## Chapter Ten

# Sound Technologies and Cultural Practices: How Analogies Make us Listen to Transformations in Art and Culture

Karin Bijsterveld, José van Dijck, Annelies Jacobs and Bas Jansen

Since World War II, an impressive series of new sound technologies has entered the scene: the reel-to-reel recorder, the cassette recorder, the compact disk, the mp3 player, sampling software on personal computers and music-sharing facilities on the Internet. How did such sound technologies affect transformations in the cultural practices of listening to and making music in Western Europe? Which shifts did they trigger in the traditional boundaries between active and passive participation in music culture? What was, for instance, the impact of the tape recorder on the boundaries between producing and consuming music, listening and creating, copying and editing music? And what did such changes mean for the roles of the creator, technician, producer and distributor of music?

These were the questions that originally fuelled our research into sound technologies and cultural practices. One of our wider aims was to study the impact of technologization, particularly the impact of digital technologies, on art and culture. The original phrasing of our questions suggested a one-way arrow from technology to musical practice – technology being the agent of change in the world of music. Our actual way of working, however, maximized the options for analyzing the effect of existing cultural practices on the use of new technologies. In other words, while our wording was still cast in technological determinist terms, our research design and analysis helped us to leave that behind. We did so by focusing on analogies in cultural practices – “cultural practices” meaning the ways in which people habitually give meaning to and act upon the world surrounding them, and “analogies” meaning similarities in the ways of understanding and acting between different cultural practices. The next section explains

why analogies between cultural practices may lead to new insights in transformations in arts and culture. We use analogies to understand how musical practices change when those who pursue these practices appropriate new sound technologies.

The analogies approach will be illustrated by describing two sets of examples. First, we examined how a 1950s manufacturer of a new sound technology, the reel-to-reel recorder, projected the recorder's future use as a "family sound album" by creating an analogy with the already established cultural practices concerning the family photo album. By comparing ideas about future cultural practices with the cultural practices that actually developed in relation to the reel-to-reel recorder, we have been able to show why the projected analogy did not fully work. The second example concerns the transformation of a long-established cultural practice of collectively ranking and listening to popular hit songs on the radio. In the year 2000, this practice from the 1960s was reinvigorated when traditional radio broadcasts were combined with new Web 2.0 technologies in a Dutch project called the *Top 2000*. Through a multimedia platform, the cultural practice of listening to hit lists was combined with national heritage building and sharing narrative memories across generations. The third and fourth example explore the cultural practices of mixtaping – re-recording a selection of songs onto a blank cassette tape – and a new cultural practice engaged in by members of the ccMixer web community. The platform ccMixer is a site that encourages the mixing and sampling of music, and is discussed in detail in the case study elsewhere in this volume. The final example concerns the cultural practice of deejaying – playing recorded music in front of a live audience. As we will show, the practices of mixtaping, ccMixer and deejaying include functions analogous with those of archaeologists, reference persons and genealogists.

In the last sections of this chapter, we will return to the theoretical framework and reflect on the practical consequences of our approach as described in these cases. What do the results of our methodology contribute to contemporary theory on technologization and musical practice? And what is their practical relevance for sound-media policy?

### **How can you study cultural practices?**

We have already provided a short definition of cultural practices: the ways in which members of a culture habitually give meaning to and act upon the world surrounding them. The word "habitually" in this definition expresses the shared and taken-for-granted nature of the way in which participants of a cultural practice understand, speak about and take action within their world. It is about the values, norms and symbols – the web of meanings – a collective subscribes to

without constantly making these explicit. This shared web of meanings is what makes the practice *cultural*.<sup>1</sup> However, the notion of cultural practices does not only refer to shared meanings or agreed-upon assumptions, but also to routine ways of acting upon the world. These everyday ways of acting make a cultural practice a *practice*.

The cultural practices approach we advocate in this article uses the habitual character of much of human activity to zoom in on the interplay of technology, discourse and human action. A practice is an activity which occurs repeatedly and exists only as long as it is repeated. It is the habitual or customary aspect of practices that gives human activity a chance to become connected to particular tools and technologies, and to develop a discourse around it. At the same time, the gradually developing and customary character of practices is exactly what makes them hard to research. The cultural anthropologist embodies a particular geographical–cultural distance towards the practice s/he studies that enables him or her, at least partially, to make the habitual visible. The historian is assisted by the distance in time period between the historian's present and the historical past studied. By contrast, the analysis of current or recently established practices within one's own culture requires other ways for opening up the common ground between the analyzer and the analyzed.

A methodological focus on analogies in cultural practices turns out to be an effective tool in making the customary character of cultural practices explicit. Our approach is thoroughly comparative, displaying resemblances at first sight and differences in second instance. We use two types of analogies: those made by (historical) actors themselves, and those made by us as analysts. An example of an *actor's* analogy is the way in which manufacturers of reel-to-reel recorders and their marketers produced analogies between the family photo album and the family sound album in their advertisements of tape recording in the 1950s. In an *analyst* analogy, however, the researchers are the ones who suggest an analogy in order to unravel the characteristics of particular cultural practices. This is what we did when we aimed to explain the success of the *Top 2000*. However, we also combined actors' and analysts' analogies, as illustrated by the case studies of mixtaping, ccMixer and deejaying. And to qualify our use of analogies even more, it is important to stress that even the analyst analogy always starts from metaphors and comparisons used by the actors studied, yet transforms these into a complete analogy in order to highlight particular aspects of the cultural practices that would remain implicit without invoking the full analogy (see the ccMixer case study for how this works in detail).

This focus on analogies in cultural practices in order to understand the role of technology in transformations of art and culture is not exactly new. The approach is rooted in a wide variety of intellectual traditions. Most relevant here are anthropology, media studies, and science and technology studies (STS). One

source of inspiration has been Daniel Miller's and Don Slater's ethnographic study of how inhabitants of Trinidad and their family members abroad did "reconstitute or enact Trini-ness online". They showed how these people's cultural identity and traditions both fed into the way they used the Internet and were reconstituted by it at the very same time.<sup>2</sup> Another important input came from media theorists Jay David Bolter and Richard Grusin. Their concept of remediation has underlined the significance of seeking analogies between older and newer media, even though their focus was on the form and format of media rather than on the cultural practices media are embedded in.<sup>3</sup> Finally, the synthesis published by STS scholars Nelly Oudshoorn and Trevor Pinch on the co-production of users and technology has been crucial. Their work unravels the many ways in which users have given new meanings to artefacts as well as to themselves in the process of appropriating and domesticating these artefacts, often resulting in new designs.<sup>4</sup> It is from this last tradition of scholarly work that we learned to take both highly successful technologies and relative failures into account.

### **Analogies in cultural practices of music I: Tape recording and the *Top 2000***

Compared to the big commercial success of the compact cassette recorder later in the 1960s, the reel-to-reel recorder (commonly referred to as tape recorder) was a failure in terms of sales rates. It was also a marketing failure since its actual use significantly diverged from the use promoted by manufacturers.<sup>5</sup> Remarkably, the tape recorder, which was introduced for consumers in the early 1950s, was not marketed primarily as a music-playing device. On the contrary, the industry's initial advertisements presented it as a device with a host of options, of which playing recorded music was merely one. In most cases, the family sound album topped the list of things to do with a tape recorder. Its function was to record precious moments of family life, such as little John's first speech or Margot's recorder tune, and then sharing the tape with relatives and friends living elsewhere. Every family, after all, had one or more albums with photos of important or happy moments. The tape recorder, in other words, was introduced as a family memory device.

The notion of the sound tape as a family album implied a comparison between sound recording and amateur photography. This analogy was made explicit in tape recorder guide books: playing sounds out loud was like blowing up a photo; the sound level indicator could be compared to the light meter, and the recorder was to the sound hobbyist what the camera was to the photographer. But, according to a handbook published by Philips, the advantage of the tape recorder over the photo camera was that the sound "print" was readily

available, whereas photographs needed to be developed outside the home.<sup>6</sup> Moreover, the handbook emphasized that sounds carried more meaning than photos. As one importer of Grundig recorders asserted, the power of sound was “that it remains vivacious and binds people together more forcefully than any picture. In a person’s voice we encounter his personal moods; in the sound of a running machine we can hear force and speed; the sound of birds connects us with nature.”<sup>7</sup>

Other possibilities that were promoted for tape recorder use at home were creating voice letters for family overseas, rehearsing amateur music performances, and making radio plays. In the course of time, the list of tape recorder functions grew from dozens to hundreds. Remarkably, the position of music within the burgeoning list of use options shifted substantially. At first, recording radio programmes was mentioned as one use among many. A radio recording offered the opportunity to listen to one’s favourite melody or favourite lecture over and over again. From the late 1950s on, though, playing recorded music increasingly topped the list of things to do at home with a tape recorder. It was for instance promoted as a means to provide several hours of nonstop background music during a dance party at home. Over time, the promotion of the tape recorder’s multiple options was carried to great extremes.

Our research into the actual use of the tape recorder clarified how in promoting the tape recorder as a family sound album, manufacturers took only part of the practical consequences of the family photo album analogy into account. Their initial image of using the tape recorder as an audio family album only included the making of sound souvenirs, not the practice of retrieving the sound souvenirs or listening to them in a collective setting. While a photo album could easily be drawn from the book shelf, the tape recorder did not live up to that level of portability. While photos can be browsed and photo albums can leafed through, the linearity of tapes and recording machines turned out to be a lot more cumbersome. Using the forward and rewind buttons was an option, but a time-consuming one. And while it is easy to make notes below pictures in a photo album, recording oral comments prior to making a recording, or making notes in a separate notebook takes a lot of planning. Without such archiving and listing activities, the recordings would hardly reveal any information to later users, the heirs of the tapes. Although BASF attempted to educate its users into archivists of sound recordings, by designing special devices for storing and archiving, most people preferred their own systems.

Even to the most capable and experienced users, listening to family recordings during family gatherings did not become as common a rite as exchanging photos. Some of our respondents merely told us that looking at pictures was easier than listening to tapes. We would like to suggest two more possible explanations, in line with our focus on sound recording as a cultural practice. Unlike



watching and commenting upon photos during family meetings, listening to recordings required all people present to be involved in the activity at the same time. Everyone in the room had to be quiet, whereas people had become increasingly used to combining listening to music with other activities. Moreover, families treasuring their sound souvenirs often discovered years later that the hardware they needed for listening to their tapes no longer worked or had been replaced by hardware that was incompatible with their tapes. And even if they still had a working set-up, and tapes had not lost their original quality, the tapes did not speak for themselves. This means that while the analogy between sound recording and taking pictures seemed to work for the production of the recordings, it did not work for the cultural practice of retrieving and collectively listening to the tapes in a family context.

While the reel-to-reel recorder was an unexpected commercial disappointment, our second example of a (re)invented cultural practice has been a big success. Since 1999, a public radio station in the Netherlands has organized a yearly, widely acclaimed, five-day broadcast of the two thousand most popular recorded songs of all times – a list compiled entirely by public radio listeners who send in their five favourite pop songs. The project originally aimed at revamping the established cultural practice of collectively ranking and listening to well-known songs, but by deploying the amenities of the Internet a new dimension was added. During the event, the station solicits online personal comments, both aesthetic evaluations and memories attached to songs. Besides having disc jockeys read these comments aloud during a live broadcast, they are also posted in their entirety on an interactive website. In addition, the station opens up a chat box for exchanging comments. A television broadcast is the grand finale.<sup>8</sup>

Whereas the study of the reel-to-reel recorder started out from the analogies defined by historical actors (manufacturers and marketing people), our understanding of the *Top 2000*'s success was informed by analogies introduced by us as researchers. Even though it is likely that the established cultural practice of listening to play lists helped to first establish the *Top 2000*'s popularity, listening to play lists as such can not be the sole key to understanding its massive applaud. The first analogy we used to describe the dimension added to this practice was that of building a national heritage, a collective repertoire of favourite pop songs. Unlike most of its commercial counterparts, the *Top 2000* is shaped as a public event, as songs are voted for by all participants through elections rather than through ranking by commercial hit lists. The entire democratic process of voting and ranking adds to the experience of the *Top 2000* as a collectively chosen national repertoire, even though only a minority of the selected songs have Dutch lyrics or are produced by Dutch bands.

Yet the *Top 2000*'s success as a national event – more than half the population of the Netherlands plugs into the event every year – cannot merely be explained

by the nation's craving for a collective repertoire. In addition, we stressed the significance of the *Top 2000* as a platform for exchanging personal stories of musical reminiscence. Besides playing the records on the radio, stories about songs were solicited through a website, and a selection of those stories was read during the broadcast. These narratives created a collectively experienced nostalgic *mood*, in contrast to a conception of nostalgia as a consumable stylistic *mode* espoused by commercial outlets such as Top 40 or oldies stations.<sup>9</sup> The exchange of comments often happened across generations, enhancing the collectiveness of the experience. In 2006, after realizing that listeners were interested specifically in storytelling, the Dutch *Top 2000*'s organizers decided to launch a separate storytelling platform as part of the annual event. Listeners had become used to sending in their spontaneous comments. But to allow space for more literary contributions, the radio station called for short stories relating a specific musical memory or experience. In the months leading up to the last week of December, listeners were invited to send in personal short stories based on a specific song featured in the ranking. The response from listeners was overwhelming: over a thousand listeners sent in their stories. A jury selected the ten best stories, and during a special celebratory radio event in January, the winning stories were read out loud by professional speakers, embellished by suitable background sounds, which was followed – of course – by the song. All stories are preserved by the Dutch National Archive, which has created a special website to make the collective heritage of these musical stories permanently accessible to everyone interested.

As elucidated by this example, the *Top 2000* project taps into three different cultural practices, two of which we articulated by means of analogies: listening to play lists, creating a collective national repertoire *and* exchanging stories across generations. Collective ranking and storytelling have now become an integral part of the musical event. The process of narrating, discussing and negotiating personal musical reminiscences and building collective musical heritage is far more important than the ultimate ranking of songs. Moreover, as became clear from public responses, the *Top 2000* thrives on the inseparable exchange of songs and stories. Through a combination of the annual radio event, website and television broadcast, this multimedia platform offers space for consensus building and the creation of a national heritage of pop songs, while simultaneously serving as a podium for collective nostalgia and communal reminiscences.

We have shown how we employed an actor's analogy in the history of the reel-to-reel recorder and analyst analogies in the *Top 2000* example, although even the analyst analogies were rooted in actors' wording of what happened in the cultural practice under study. We would like to add that the analogy in the tape recorder example is a forward looking analogy – an analogy to project a particular future – while the analogies used to unravel the *Top 2000* event are back-

ward-looking analogies. In both cases, however, we presented analogies to explain the success and failure of cultural practices projected and triggered by new sound technologies. Yet using analogies to explain the success and failure of new sound technology-related cultural practices is not the only way to make analogies productive.

### **Analogies in cultural practices of music II: Mixtaping, ccMixer and deejaying**

Our project did not only cover the cultural practices involving the reel-to-reel recorder and enhanced radio, but also included cultural practices related to the compact cassette recorder, Internet communities and the turntable. In three specific case studies, we examined the cultural practice of mixtaping in the 1970s, when the novel device of the cassette recorder was deployed by users to compile so-called “mixtapes” of recorded popular songs; we also studied activities of members of ccMixer, an online community platform for remixing recorded music (see insert for detailed description); and finally, we investigated the contemporary cultural practice of deejaying by interviewing a number of contemporary Dutch DJs who use either old turntable technologies or new digital technologies to create a live dancing event, asking them about their self-described roles.<sup>10</sup> All three case studies centre on cultural practices of mixing and re-recording popular music and make use of both actor’s analogies and analyst’s analogies.

So far, most current debates about the production of recorded music practices have revolved around the issue of music copyright where recorded music is basically regarded as a product. In line with our approach, we intend to shift this focus to the cultural practice of mixing recorded music by focusing on a phenomenon called credit giving. The term refers to the reward or acknowledgement which partakers in a cultural practice receive for their contributions. The dominant idea is that an artist is admired for the creative part of music production; the recording industry takes care of the practical side of the production process; and consumers admire the artist, pay all partakers in the production process, and in return are enabled to listen to their music of choice. Bas Jansen has coined this line of thinking “the commercial theory of appropriate credit”. Now that digital technologies make it easier for anyone to create, manipulate and distribute music, this division of labour is under pressure, resulting in the copyright debates. We will explain how we can take a different approach to these debates by focusing on analogies to cultural practices. In the specific cases of mixtaping, ccMixer and deejaying, we would like to show how the use of both actor and analyst’s analogies helps to challenge taken-for-granted ways of credit-giving.

We could only properly understand styles of credit giving and roles connected to these by unravelling their analogies with roles outside the music world. In all three cases, the main actor is not just someone who samples and mixes samples of recorded music, but also functions as a reference person: just like library reference persons, “mixers” and re-recorders direct their audience to existing yet undiscovered sources. The role of reference persons becomes more interesting when they interact with individuals or groups by trying to determine a query – a need for music their audience may or may not be aware of. For instance, a mix-taper acting as reference person can introduce the recipient of his or her mixtape to new musical territory, designing the tape specifically to please or to challenge the recipient’s musical preference. The DJs implant this activity of “query reading” into the context of a continuous relationship with the crowd, enabling them to gradually steer the mood on the dance floor and to generate joyous shared experiences. And the users of the online remix community ccMixer may recommend tracks to each other, thus mediating between a corpus of compositions and an audience of mostly anonymous visitors navigating the ccMixer website. In a popular music culture which for many people is too rich with possible musical experiences to find one’s way in, reference persons provide a vital service of interpretation and selection. Whereas canon-like guides such as hit charts take a one-size-fits-all approach, a good reference person takes someone’s personal preferences and needs into account. Thus, at their best, reference persons help others to deepen their engagement with the culture around them.

Another analogy that may expand our understanding of mixing and re-recording as a cultural practice, relates to another professional position outside the musical world: that of the archaeologist. For instance, DJs interested in playing vinyl recordings often refer to their search for such recordings as “digging” – hence it is the actors themselves who trigger the analogy to archaeology. As pop music archaeologists they play a role in the preservation of its historical treasures. Just like real archaeologists, they are not only interested in the digging and conservation of vinyl records, but also in presenting their treasures to a new generation. So-called conservationist DJs are eager to disclose these remnants of the musical past to an audience which may then develop a sensibility for the fact that present-day music is not necessarily the measure of all things.

A final instructive analyst-induced analogy to interpret the cultural practice of mixing and re-recording music is to describe the role of the mixer as a genealogist. In general terms, the role of the genealogists consists of giving due credit to predecessors and to tradition. In the ccMixer case, the role of the mixer as genealogist is most explicit; the role is not performed by one person, as in the case of the reference person or archaeologist, but is shared by all ccMixer members. One of the most innovative aspects of ccMixer community is that all members make explicit the relation between remixers and the ones whose work they

reuse and thus give generous and due credit. In the rest of popular music culture, relations to predecessors are often obscured. DJs, for instance, play pre-existing music, and this generates copyright issues, but these are taken care of behind the scenes by venue holders. The commercial theory of appropriate credit insists on reproducing the myth of original creation, and, by the same token, on obscuring relations of genealogy. A look at ccMixer shows us how a renewed awareness of genealogical issues can revitalize a community's sense that making music is a deeply social activity.

An emphasis on cultural practices of re-recording music by articulating analogies helps shift the emphasis from recorded music as a creative product or commercial commodity to mixing and re-recording as a process and a newly developing, habitual user practice. In these new practices, agency is far from static; these shifting roles of cultural agents, elucidated by the analogies to reference persons, archaeologists and genealogists also change established notions of credit-giving and force us to imagine alternative ones.

### **Theoretical harvest of the analogies-of-cultural-practices approach**

How have the case studies described above shaped the frameworks used to theorize transformations in arts and culture? Why does a focus on cultural practices – as opposed to a focus on products, producers or industrial processes – propose a substantially different insight into historical and contemporary changes in the recording of popular music? And what is the advantage of using both actor's and analyst's analogies in exploring how various agents help change and shape cultural practices? In a period when there is a heightened focus on accelerated technological changes, on technologization, it is important to analyze both historical and current changes in musical practices by means of analogies, in order to help redirect the discourse of contemporary debates, which parameters are still predominantly grounded in traditional models of producers versus consumers, commoditization of cultural content and romantic notions of creativity.

What we learn from the cases of the reel-to-reel recorder and the *Top 2000* project is that there is no self-evident or predictable relationship between already established cultural practices and the way they evolve after the introduction of new technologies. In the first case, marketers and manufacturers promoted the analogy between sound recording and family photography, whereas in reality the two cultural practices happened to be too different to be aligned. In the case of the *Top 2000*, the introduction of an interactive digital platform did not merely reinvigorate the purported cultural practice of ranking and listening to popular music on the radio, but active participants who contributed to the rankings and stories in fact added two unforeseen dimensions to this cultural practice: collectively creating a national heritage of songs and sharing stories across

generations. Most debates on the transformation of musical practices hold on to the traditional notion of recorded music being a product whose form and shape is primarily determined by producers, whether marketing specialists or radio station managers. But the examples above prove the significance of recognizing the role of users in steering the directions – success or failure – of technological innovation. While this will be no news to scholars in science and technology studies, our eye for analogies in cultural practices does help to provide additional explanations for the appropriation of new technologies.

A similar urgency for the recognition of cultural practices as determining forces can be traced in recent copyright debates. As explained in the second set of case studies, the music industry's argument to protect copyright and restrict most practices involving the mixing and re-recording of popular music is rooted in a remarkably old-fashioned model of creators and consumers mediated by an industry which turns immaterial creativity into a material consumable commodity, resulting in a worthwhile musical experience for listeners. Every actor in this model has a prescribed role and function, thus legitimizing the prevailing ideas on credit giving. Ideally, the artist creates songs not for money but from an intrinsic creative drive. Paradoxically, the artist deserves financial support precisely for this reason, so she can pursue her noble goals full-time. The artist's "real" reward is as immaterial as the value she creates, namely the love and admiration of her audience. The industry deserves a financial reward insofar as it provides a useful service. Consumers give credit in two ways: they financially reward both artist and industry and they reward the artist with attention and admiration.

With the advent of digital music technologies, the way of understanding pop music production described by the dominant model has lost some of its self-evidence, and competing ideas have been launched. Critics of the old model duly note the changed role of the music listener, who is now a more active participant; this idea fits the participatory nature of new music platforms, many of which promote the active sharing and mixing of recorded music. Many critics, however, do not challenge established romantic notions of musicians as geniuses and the industry as inhibiting the creativity of all participants; rather, they foster the new ideal of generalized artistry. Only those theorists who use the concept of sharing economies, most notable Lawrence Lessig, the founder of Creative Commons, actually investigate the conditions underlying individuals' motivation to act creatively.<sup>11</sup> They attempt to articulate the social principles that make a durable sharing economy possible.

The studies of deejaying and the ccMixer case bring an alternative viewpoint to these copyright debates by emphasizing not products or industrial processes, but cultural practices and their specific styles of credit-giving as an important factor in the transformation and processing of recorded music. As these studies

illustrate, new digital technologies do not self-evidently result in new cultural practices but are part of a gradual reinvention of musical practices and the reshaping of cultural habits of people engaged with recorded music. It is an intense and complex process, where actors take on new roles and assign themselves new functions – or more accurately: old roles and old functions in new forms – which should be rightly acknowledged. The analogies approach revealed how practitioners of this cultural practice, such as DJs, are keenly aware of their different roles: we compared their roles to archaeologists and reference persons to accent the novel kinds of credit at stake in these practices. In a similar vein, members of the ccMixter community invent new roles for themselves, most notably the role of genealogist, a role that is closely intertwined with a new type of credit-giving. In the context of their revamped cultural practice of mixing and re-recording recorded music online, they properly acknowledge all previous producers of sampled fragments.

The approach to emphasize and specify cultural practices and the focus on analogies to highlight and accentuate the changing roles of practices and practitioners decisively detracts from traditional models theorizing transformations in recorded pop music culture. The old model, insisting on the tripartite division in artists, industry and consumers, and on the exaltation of the artist, solely recognizes the commercial production of pop music and the passive consumption of recordings as valid cultural practices. However, as we have illustrated in the case studies, there is a greater diversity of contributing to pop music culture than this model recognizes. The strict division between standard roles and the undue emphasis on the role of the creator detracts from the recognition of other important types of participation. By comparing both old and new types of participation and by displaying analogies to older cultural practices both inside and outside the music world, we show how the digitalization of music has been appropriated in ways that reiterate cultural habits deeply rooted in Western culture.

### **Practical harvest of the analogies-of-cultural-practices approach**

Scholars studying media are used to receiving phone calls and emails from journalists wanting to write an article or prepare an item for a radio or television show on the history of, or contemporary changes in, the media they themselves work for. We were no exception and during our project we contributed to articles in newspapers as varied as *de Volkskrant* and *De Telegraaf*, and items for radio shows broadcast by AVRO, Wereldomroep and Teleac. One day, however, a less common type of phone call came in. It happened to be the director of a company seeking advice. The company – which has requested anonymity – had been producing several products involving sound for quite some time. Some of

these products were a huge success, others had unexpectedly failed. After reading a newspaper article in which one of us had been interviewed about the history of the tape recorder, the company's director realized that it could be worthwhile to review the history of the company's own products in order to understand their varying levels of success. Indeed, we spoke to the director on his assumptions about the cultural practices in which he had thought his products would function, notably the failed ones. Could we help him make these assumptions explicit by comparing his ideals with similar sound technologies and related cultural practices in the past? One of his assumptions was that consumers liked to go for original sound-related gifts, neglecting, as we stressed, the highly conventional and ritualized situations in which he wanted to embed his products. As researchers, we realized our analogies approach was not merely useful as a theoretical prism, but could also be deployed to consult on product development – even though the term is rather pretentious given the informality of the actual occasion.

In addition to such free consultancy on innovation, we think our studies are also practically relevant for current debates on the policies regulating particular sound media. Besides the above-mentioned copyrights debate, here is another example. Recently, media researcher Philomeen Lelieveldt reflected on the status of Dutch public radio stations in an international perspective, and notably on the problematic position of classical and contemporary art music programmes.<sup>12</sup> Policymakers in the Netherlands apparently struggle to find an effective policy to provide for such programmes. Research shows that people increasingly spend less time listening to radio; more importantly, the relative amount of time spent on primary listening (focused listening), has shifted to secondary listening (listening while doing something else in parallel such as driving), and non-listening (radio as mere background sound). Whereas commercial radio gains ground, public broadcasting stations press budget cuts upon their classical music programmes. Since commercial radio has been successful in keeping the audience hooked by exploiting non-listening through the use of highly predictable formats and volume compression, Dutch policymakers define the role of commercial radio as providing for entertainment and background music, while public radio should focus on giving news and information. Classical music and contemporary art music are thus squeezed out, or forced to focus on providing news about music.

Lelieveldt interestingly suggests that one way out of this cul-de-sac for art music is to learn more about the actual functions of radio. People may listen to radio for intellectual pleasure, education and repertoire, or to gain knowledge about norms and values; for companionship or entertainment, during non-demanding work for instance; and for background music that enhances their tempo of routine activities or blocks out distracting noise. The first set of func-



tions requires primary or secondary listening, the second series necessitates secondary listening, while for the last set secondary or non-listening suffices. She also notes, however, that people can listen to radio as a side-activity and listen attentively at the very same time. Moreover, classical music radio has acted as producer of performances and thus has functions beyond radio itself.

We agree with Lelieveldt that it is important to deepen our knowledge of the functions of radio and the complexity of listening. Yet her remarks also lead us to believe that the distinction between primary, secondary and non-listening – which comes from communication research – may not be so helpful after all. Whereas the communication studies' focus is on various levels of attention, a cultural practices approach would considerably widen the scope of research, notably when the analogies between musical and other practices are taken into account. This would, for instance, highlight nostalgic listening in the cultural practice that evolved along with the *Top 2000*, or mark as explorative listening the musical practices engaged in, and invited to engage in, by archaeologists and reference persons. It would also be helpful to think about the multisensory aspects of listening, such as when car drivers use audio technologies to create a soundtrack to what they *see*. A cultural practice approach might even suggest an alternative policy concerning classical music on public radio. It would be worthwhile to know, for instance, which type of classical music contributes most to nostalgic or multisensory listening when commuting.

### **Conclusions: An analog(ous) discussion of digital sound technologies**

If we listen in on debates about the effects of digital sound technologies, such as debates on piracy due to sampling software or copyright infringement due to mp3 technologies, these debates are remarkably digital in kind. Most discussants either defend the commercial theory of appropriate credit which serves the interests of traditional producers, or defend the romantic notion of generalized artistry for people traditionally known as consumers. Positions in these debates are often binary; it is either “zero” or “one”, and nothing in between, as if the digital character of the technologies has coloured the nature of the discussion. It will come as no surprise that we defend an analogue approach, focusing both metaphorically and literally on analogies. This alternative approach, however, does not just stress the continuities between 0 and 1, the shades of grey between black and white, but also presents a decisive shift in the theoretical and practical frameworks for understanding the cultural production of recorded music.

Our method of focusing on analogies between cultural practices, either as an actor's or analyst's category, helps compare cultural practices of recorded music prior and after the introduction of digital technologies. These analogies also help to break free from established categories theorizing the production and con-

sumption of music, and assist in creating new parameters to discuss the revamped roles of actors, such as the archaeologist, the referent or the genealogist. Acknowledging these new roles and the new types of credit-giving that come along with them, is an important step in designing a new model for understanding cultural practices of music in the age of digital technology, a model that may counteract traditional models rooted in product and industry-oriented notions of copyrights and financial rewards.

At the very same time, our analysis shows how novel types of credit-giving build on older ones. This holds both for cultural practices connected to *digital* sound technologies and for those linked to *analogue* sound technologies – for ccMixer *and* for mixtaping, for example. The implication is that although we have something new to contribute to the discussion about the world of music in the digital age, there is no reason to believe that we need different sets of conceptual tools for analyzing the processes of technologization and of digitalization in music. Studying both processes in the same *manner* has actually helped to get away from discussing today's world of music merely in terms of a dystopian end of the music industry and the digital utopianism of generalized artistry.

Moreover, our focus on analogies in cultural practices expands the discussion on functions and modes of listening that dominate current policy discourse on the future of “old” media like public radio. If we try to account for the character of cultural practices and add notions such as nostalgic, exploratory and multi-sensory listening to that of primary, secondary and non-listening, we may even see a different future for public radio than the doomed one often suggested. Let's listen for what happens.

## Notes

1. Our notion of “web of meanings” is based on the phrase “web of significance” introduced by Clifford Geertz, *The Interpretation of Cultures* (London: Fontana, 1973), 3, as quoted in *Researching Society and Culture*, ed. Clive Seale (London: Sage, 2004), 13. We preferred “web of meanings” over “web of significance” because of the somewhat ambiguous meaning of significance, which refers both to meaning and importance.
2. Daniel Miller and Don Slater, *The Internet: An Ethnographic Approach* (Oxford: Berg Publishers, 2000), 27.
3. Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, MA: MIT Press, 1999).
4. Nelly Oudshoorn and Trevor Pinch, eds. *How Users Matter: The Co-Construction of Users and Technology* (Cambridge, MA: MIT Press, 2003).
5. In two publications, Karin Bijsterveld and Annelies Jacobs explained how and why this happened. See Karin Bijsterveld, “‘What Do I Do with My Tape Recorder...?’ Sound Hunting and

the Sounds of Everyday Dutch Life in the 1950s and 1960.” *Historical Journal of Film, Radio and Television* 24 (2004): 613-634; Karin Bijsterveld and Annelies Jacobs, “Storing Sound Souvenirs: The Multi-Sited Domestication of the Tape Recorder”, in *Sound Souvenirs: Audio Technologies, Memory and Cultural Practices*, ed. Karin Bijsterveld and José van Dijck (Amsterdam: Amsterdam University Press, 2009), 25-42. All quotes in section 3 are cited either in the chapter by Bijsterveld and Jacobs, or in Van Dijck (2009, see note 8), and the text of section 3 heavily draws on these chapters. We would like to thank Amsterdam University Press for recently allowing us to bring the *Sound Souvenirs* volume under a creative commons licence.

6. C.G. Nijsen, *The Tape Recorder: A Complete Handbook on Magnetic Recording* (London: Iliffe Books, 1964), Introduction.
7. “De Bandrecorder als Hobby-Object”, *Bandopname* (September 1963): 35.
8. José van Dijck analyzed the case of the *Top 2000* in detail in two book chapters. See José van Dijck, *Mediated Memories in the Digital Age* (Stanford, CA: Stanford University Press, 2007); José van Dijck, “Remembering Songs through Telling Stories: Pop Music as a Resource for Memory,” in *Sound Souvenirs: Audio Technologies, Memory and Cultural Practices*, ed. Karin Bijsterveld and José van Dijck (Amsterdam: Amsterdam University Press, 2009), 107-119.
9. For the distinction between nostalgia as a commercial “mode” and a collective “mood”, see Paul Grainge, “Nostalgia and Style in Retro America: Moods, Modes, and Media Recycling”, *Journal of American and Comparative Cultures* 23.1 (2000): 27-34.
10. This section and the following are largely based on Bas Jansen, “Tape Cassettes and Former Selves: How Mix Tapes Mediate Memories”, in *Sound Souvenirs: Audio Technologies, Memory and Cultural Practices*, ed. Karin Bijsterveld and José van Dijck (Amsterdam: Amsterdam University Press, 2009), 43-54; and Bas Jansen, “Where Credit is Due: Cultural Practices of Recorded Music”, Ph.D. thesis, University of Amsterdam, 2010.
11. Lawrence Lessig, *Remix: Making Art and Commerce Thrive in the Hybrid Economy* (London: Bloomsbury Academic, 2008).
12. Philomeen Lelieveldt, “Focus op Radio, een literatuurverkenning met betrekking tot de positie van klassieke en andere kunstmuziek op de publieke radio, mede in internationale verhoudingen”, unpublished paper, November 2009.