Spotify as a case of musical *Bildung*

Cecilia Ferm Almqvist[1], Susanna Leijonhufvud[2] and Niclas Ekberg[2]
Affiliation: [1]Södertörn University, Sweden; [2]Luleå University of Technology, Sweden
Contact corresponding author: cecilia.ferm.almqvist@sh.se

Abstract

This article explores the meaning and function of streaming media as a potential facilitator of musical *Bildung*. Taking the affordances of streaming media technologies as a starting point, the article thus focuses on the formative and cultivating dimensions a music streaming service such as Spotify might offer. The specific aim of this article is to describe and analyse how musical *Bildung* may evolve within a Spotify context from a user perspective. To address the aim from the point of view of music education, Spotify users' activities and experiences of streaming media interactions were accessed, inspired by internet-related ethnography. Stimulated recall interviews, focusing on the participants' experiences as well as their actual use of Spotify's streaming service, were conducted, recorded, and transcribed. The generated material was subjected to co-operative hermeneutic content analysis. The results illuminate how *Bildung* evolves in users' encounters with the service and with art mediated via Spotify. Relevant topics occurring in the human-art-technology relationship of *Bildung* from a Heideggerian perspective were Being-possible, the ability-to-be, and Spotify as the Other. In sum, it can be stated that *Bildung* evolves when Spotify exceeds the thingness of the Other, becoming a work of art in itself, throwing the user into Being.

Keywords: *Spotify, streamed music,* Bildung, *being, becoming, technology*

Introduction

This article reports a study based on stimulated recall interviews (Calderhead, 1981; Lam, 2008) that aims to explore the meaning and function of the streaming media service Spotify as a facilitator of *Bildung* within the realm of music. *Bildung* frames the life-long journey of exploring, experiencing and learning (Burman, 2018). Furthermore, musical *Bildung* enhances music and music-related activities: "in musical *Bildung* processes human beings act and reflect and internalize intertwined essential and existential dimensions of music,

through action, reflection and being with, in social, historical and spatial contexts" (Ferm Almqvist, 2020, p. 280). The locus of attention in this study was Spotify, which has become the dominant means of accessing recorded music in Sweden. What is radically new in streaming is that not only is music delivered to its audience, but also that the members of the audience, i.e., the listeners, in different ways and to various degrees co-create what is offered due to the algorithmic companion that follows a user in a streamed content. Thus, music via Spotify is by default a double-directed communication (Eriksson et al., 2019; Leijonhufvud, 2018). Consequently, Spotify influences how musical *Bildung* may evolve among users within the algorithmic interplay with the service, which is why it is important to scrutinise the relation between users, Spotify, and music.

Hitherto, music and its relation to the new, transformed music industry has been studied from equality, technological, and economic perspectives (Burkart & McCourt, 2006; Kask, 2011; Snickars, 2016; Werner & Johansson, 2016; Wikström, 2009), as well as with focus on listening habits and listening frequency (Johansson et al., 2018; Eriksson & Johansson, 2017; Snickars & Mähler, 2018). In addition, the meaning and function of streamed art expressions in people's lives (Lieng Jakobsen, 2018; Nylund Hagen, 2015), and the affordances that the technological streaming company Spotify offers (Leijonhufvud, 2018) have also become matters of interest. Streamed music is by no means a limited entity but a heterogeneous phenomenon that shows itself through the complex interplay between the users, the music, and the streaming technology intertwined with everyday living, as well as in the shift towards a unifying music-streaming culture (Nylund Hagen, 2015). Hence, music services such as Spotify are by no means to be understood merely as collections of isolated features that provide a soundtrack for everyday life. Rather, such services intertwine various practices and assumptions which create new trajectories for the users' everyday engagement with music. The ongoing formation of the streaming media landscape inevitably challenges and exceeds the distinction between the private and the collective (Lieng Jakobsen, 2018), as well as the digital algorithm and the human (Eriksson et al., 2019; Leijonhufvud, 2018).

Spotify is also used for professional purposes, and previous studies have illuminated how institutions, including public services (e.g., in Sweden), have chosen Spotify as a distributor of their media services (Burkart & Leijonhufvud, 2019; Leijonhufvud, 2018). This implies that no public or traditional educational institution is the sole owner of the question of musical *Bildung*. The responsibility for the cultivation of democracy and culture has emigrated to private companies as well as to digital and media literate individuals (Burkart & Leijonhufvud, 2019; Johansson et al., 2018; Leijonhufvud, 2018). This means that the monopoly on musical *Bildung* is no longer maintained. Educational institutions and public services have abdicated from their assigned position of responsibility, which meant being the main promoter of democracy, citizenship and culture, to a position from where the balance of power between the public sphere and commercial interests cannot be upheld

(Giroux, 2004). Hence, questions of education and *Bildung* are at risk of being lost. This article focuses on the self-formative aspects of music streaming and, more specifically, on what it means to be an art-experiencing human situated in a world pervaded by technology, and based on a phenomenological-hermeneutical way of thinking. The aim of this article is to *describe and analyse how musical* Bildung *may evolve within a Spotify context from a user perspective.*

Theoretical framework

To understand and interpret experiences of using Spotify as expressed by the participants in relation to *Bildung*, some concepts need to be defined and contextualised. For this purpose, we have chosen an existential phenomenological-hermeneutical starting point that places Heidegger's thoughts in the centre.

Bildung and musical *Bildung*

In this article, *Bildung* is seen as a field of tension where experiences, relationships, and actions are formed, a field that includes existential as well as essential dimensions. Hence, *Bildung* partly contains an inner, reflective, and self-constructive dimension, related to how a human being sees herself or himself and the world. *Bildung* also encompasses reflections upon what is learnt (Burman, 2018), in this case the essential dimensions of music (Nielsen, 1998). Therefore, this study takes *Bildung* as its point of departure, which we aim to both explore and challenge in its relation to contemporary technology and art. *Bildung* as such is heavily laden with history, tradition, and ideals regarding human cultivation and educational goals. Still, it has the potential to frame and draw attention to various perspectives and understandings of the conditions for and the meaning of the formation of the human being (Burman, 2018; Varkøy, 2017). In this way, learning in and about the world and oneself happens in an intertwined way and simultaneously. From this perspective, *Bildung* can be characterised as an impetus for continually new learning and an openness to unknown and unexpected perspectives as well as a willingness to re-evaluate one's own values and imaginings (Ekberg & Schwieler, 2020). Consequently, the view of *Bildung* used in this article includes existential dimensions—formation—and essential dimensions—cultivation.

Musical *Bildung*, then, concerns musical formation and cultivation, reflection, attunement and an openness towards how a person's own *Bildung* journeys are brought about (Varkøy, 2015). Taking Nielsen's (1998) model of music experience as a starting point, we include structural, tensional and acoustic as well as existential, emotional and bodily aspects of musical experiences. In Nielsen's (1998) multifaceted universe of musical meaning, the existential dimension of music has the potential to throw a person into Being (Leijonhufvud & Ferm Thorgersen, 2015).

Becoming and the ability-to-be

Although the concept of education is not addressed explicitly in Heidegger's writings, he still has much to contribute to the question through his ontological explications of the conditions of being and of human self-formation. To Heidegger (1962), the everyday world of working and caring, of expectation and anxiety, serves as a natural point of departure for his explication of the spatial and temporal conditions of Dasein. In *Being and Time* (1962), he states:

> Knowing oneself [*Sichkennen* in the original] is grounded in Being-with [*Mitsein* in the original], which understands primordially. It operates proximally in accordance with the kind of Being which is closest to us—Being-in-the-world as Being-with; and it does so by an acquaintance with that which Dasein, along with the Others, comes across in its environmental circumspection and concerns itself with—an acquaintance in which Dasein understands. Solicitous concern is understood in terms of what we are concerned with, and along with our understanding of it. (p. 161)

Based on this quotation, a number of key ideas can be identified. First, human beings always stand in relation to the world, which is a world of things and Others. Second, as Being-in-the-world, a human being is characterised as both a "Being-there", belonging to a place, and a "Being-with", as in understanding oneself in the presence or absence of Others. Third, the human being is concerned with, cares for, and constantly tinkers and deals with the world and the things in it. These spatial and temporal interactions and engagements, relations and concerns, constitute the basis of human understanding of oneself and the world.

Heidegger (1976) also provides a way of thinking that overcomes the concept of pure representation and moves towards the act of doing and the idea of being as an event or a process. Thus, existential understanding can never be reduced to a pure mental construction or an insight of a higher mind. When the act of doing interrelates with the act of thinking, as in musical *Bildung*, the authenticity of the user's "Being-one's-Self", her un-concealment of who she actually is and could be, and her being/becoming are accentuated. Un-concealment can be seen as an expansion of time and space beyond human beings' everyday direct perceptions. This can be defined as a surplus of being, an expansion or an ability-to-be, which takes human beings away from a daily utilitarian understanding of reality. Such ontic surplus can be defined as an event of being (Heidegger, 1976).

We have found Heidegger's way of describing the ontological process of the becoming of being, or to "Become what you are" (Heidegger, 1962, p. 168), as especially fruitful when analysing the meaning of the merging of man–machine–music from a *Bildung* perspective. *Bildung*, as it is presented by Heidegger, is not occupied with certain directions or goals of cultivation. On the contrary, "Bildung is about an openness to Being" (Ekberg & Schwieler, 2020, p. 6). Thomson (2004) identified two crucial dimensions of the human being's existential possibility in "being-possible" (*Möglichsein*) and "ability-to-be" (*Seinkönnen*). Thomson (2004) explained: "Our being-possible is composed of our long-term identities, goals,

and life-projects, while our ability-to-be names the capacities and skills we exercise and develop precisely by committing ourselves to and pressing ahead into such life projects" (p. 450). This process involves, on the one hand, a turning away from the ever-so-occupying world accompanied by a reflective turning back to the same, and, on the other hand, an outward projection towards and a grasping of the future: the "ability-to-be" which eventually turns inward and discloses who you are – the "being-possible".

We also emphasise two additional Heideggerian concepts, which are both useful in analysing the empirical data and are fully in line with the existential Being-with-character: *learning-with* – "*Mitlernen*" in the original (Heidegger, 1977a, p. 212) – and *thinking-with* – "Mitdenken" (p. 210). Both concern the need for fellow thinking that embraces the mode of Being-in-the-world as both Being-with and Being-one's-Self. As such, it stands in sharp contrast to the calculative thinking of modern society, which "thinks everything within the sphere of values, of the authoritative force of value, of devaluing and revaluing" (Heidegger, 1977b, p. 82).

The human–technology relation

According to Heidegger (1977b) technology is a complex phenomenon which should not primarily be regarded as a means to an end, an accommodating device for extending and facilitating human intention and activity. Rather, technology should first and foremost be understood as a thinking paradigm, a certain way of approaching and experiencing the world, a world which is emptied of its meaning, uniqueness, and authenticity. Without disregarding either the ontological significance of technology, or its material affordances as a mediating artefact, we also regard technology as a possible Other, a non-human co-actor of thinking-with in a variety of formative, serendipitous, unforeseen, critical ways (cf. Ekberg & Schwieler, 2020; Leijonhufvud & Ferm Thorgersen, 2015; Pio & Varkøy, 2015). To speak of *Bildung* in a context in which technology serves as the very hub of musical experiences might seem contradictory, even oxymoronic, considering Heidegger's critical approach. However, Heidegger (1977b) claims that technology not only harbours the imminent dangers of instrumentalism, conformity and calculative thinking but also has the potential to be a "saving power" (p. 33), to reveal something meaningful and true when it comes to possible ways of being. When humans, art, and technology become interrelated, as in the case of Spotify, technology does not solely reveal itself as the Other *opposed* to the human. Instead, technology intertwines with the human and refines the music service and the music it mediates (Leijonhufvud, 2018; Snickars & Mähler, 2018). Heidegger (1966) points out the mysterious and somewhat elusive potential residing in technology:

> *The meaning pervading technology [technischen Welt] hides itself.* But if we explicitly and continuously heed the fact that such hidden meaning touches us everywhere in the world of technology, we stand at once within the realm of that which hides itself

from us and hides itself just in approaching us. That which shows itself and at the same time withdraws is the essential trait of what we call the mystery. I call the comportment which enables us to keep open the meaning hidden in technology, *openness to the mystery [die Offenheit für das Geheimnis].* (p. 55)

In addition to serving as a facilitator and a problem-solver to humans in their daily lives, technology also brings about an unawareness that lets it steer human beings and take over their ways of thinking and being. Hence, technology can make people forget the origin of technology as well as technology's potential to both disclose and conceal the world to them. *Evolving* Bildung, (Ferm Almqvist et al., 2020; Ekberg & Schwieler, 2020), takes its starting point the closely intertwined interaction between humans and technology, in a reflective approach that does not take technology for granted. Such an approach opens up the possibilities of technology, rather than letting it dominate or even determine our lives. Arendt (1958) emphasises that action "is not the beginning of something but of somebody" (p. 177) – the activity of somebody's self-formation. Thus, if the interrelatedness of human-art-machine in streaming media is seen as a potential and not mere danger, this interrelatedness can also open us up to new ways of understanding *Bildung* and the possibilities of evolving *Bildung*.

Art and Being

Art is for Heidegger something that exceeds being a thing. Further, art exceeds the instrumentality of a tool. Art possesses a special quality that throws humans into *Being*. By this term, Heidegger (1960) illuminates a special state of being in which the human is tossed between what is conceptualised as the "earth" and the "world". A musical work of art is, for instance, not a mere result of a complex combination of earthly qualities – tones, beats and sounds – but rather a phenomenon that can be experienced as meaningful in which the subtle qualities of what it means to be a human being in this world are brought about – the existential terms of life (cf. Nielsen, 1998). This perspective was also echoed in Varkøy (2017), for whom musical art has the intrinsic potential to awaken human existential experiences: to be hit, shaken, affected and moved. To be "hit" by a work of art and thrown into Being means that the human gains a new insight into, or a new perspective on, situations that cumulatively make up one's life history. When it comes to music, new musical genres, instruments, musical expressions, artists and even particular songs can become works of art in themselves and thereby affect and change the experiencing subject's view of his or her life and of the world. Pio and Varkøy (2012) suggest that this phenomenon can occur on both individual and collective levels by presenting examples like John Lennon's song "Imagine", which communicated directly to "entire generations of people" (p. 112). When lived history changes, a transformation has taken place; it becomes possible to view the world with "new" eyes (Heidegger, 2002, 1960), which can be achieved through a work of art.

As stated above, Heidegger (1977b) emphasises the essence of technology, its ambiguous position, and its hitherto undecided role. In concluding that technology and art to some extent share the same role, which is to show and give humans opportunities to create meaning in the world, Heidegger (1977b) further points out the interrelatedness between *Bildung*, art and technology. This has repercussions for how humans can relate to what Spotify means from the perspective of *Bildung*, it has an ability to offer spaces for being and for becoming, to reveal one's potentiality-for-Being (Heidegger, 1962), in interplay with art and technology (Ekberg & Schwieler, 2020).

Method

To address the aim of this article and describe and analyse how musical *Bildung* may evolve within a Spotify context from a user's perspective, it was crucial to gain access to Spotify users' qualitative descriptions of their everyday activities and lived experiences of streaming-media interactions. Inspired by netnography (Kozinets, 2002) and internet-related ethnography (Postill & Pink, 2012), we chose to interview Spotify users while they were handling their Spotify interface setup. Internet-related ethnography is defined by Postill and Pink (2012) as an approach that engages with internet practices and content directly, but not exclusively. Like social media practices, the use of Spotify "is dispersed across web platforms, is constantly in progress and changing, and [...] implicates physical as well as digital localities" (p. 125). Hence, accounting for face-to-face socialities and material contexts, such as Spotify environments, becomes necessary. To some extent, the interaction and the traces of interaction between the user and Spotify served both as a research subject and a research tool. In addition to the direct ethnographic approach, the study is also retrospective in nature, as the data sampling was largely conducted in the form of stimulated recall interviews (Calderhead, 1981; Lam, 2008). Lam (2008) describes Stimulated Recall (SR) as a method to stimulate informants' recall of their thoughts and considerations in an earlier situation by using different kinds of prompts – in this case, for example, the compositions of playlists and listening activity logs. An audio and video conferencing service, Zoom, was used for audio as well as screen recording during the interviews regardless of whether they were conducted online or in a joint physical place.

The recruitment of participants was conducted through convenience sampling (Flick, 2014). This means that all of the subjects were Swedish, previously known to us, and situated in the same cities as our affiliated universities: Luleå, Piteå and Stockholm. We recruited 14 users of different ages (ranging from 13 to 69), of whom six were females and eight males, in order to get access to a broad representation of Spotify user experiences. The participants were informed about the design and purpose of the study, how the collected data material would be handled and used and that the participation was voluntary. All

participants gave their consent. Below, the participants are described by their occupation and age:

- retired media teacher – 69
- café owner – 50
- organisation consultant – 50
- computer engineer – 49
- university lecturer – 48
- troubadour and music teacher – 44
- dance teacher – 35
- music artist – 23
- part-time after-school teacher – 22
- fashion influencer – 22
- college student – 16
- three teenagers – 13

The interviews were performed during the autumn of 2017. The three members of the research group arranged and conducted three to five individual interviews each, which lasted 30–120 minutes. Five of the interviews were conducted online. The participants shared their experiences of music activities related to the use of Spotify as well as their activity history as it was presented in the graphic user interface. The conversations also focused on the participants' relation to music and music activities in general. Since the study to a large extent departed from a Heideggerian perspective on self-formation, on technology, and on art, daily practical activities – thinking-with as well as reflections on technology and music – were recurring topics introduced by the interview leaders.

Although the interviews were conducted in accordance with the stimulated recall approach, they cannot be characterised as one-way communication sessions where user history was uncovered and retrieved. Instead, the interviews not only were stimulated by, but also influenced, the use of Spotify in the actual situation (Kvale & Brinkman, 2009). The interviewer and the participant could alternately depart from and continuously relate to various events and activities fixed in the Spotify graphic user interface. This openness and flexibility helped to orient the data sampling towards a broad range of user experiences and memories of specific situations and events as points of departure for the interview conversations, which is in line with van Manen's (1990) methodological recommendations. However, openness and susceptibility should not be mistaken for naivety or laxity. Participants might over- or underestimate certain details of their own media use, and they are particularly prone to being influenced by the interviewer's ways – sometimes subtle ways – of scripting or directing the recollection of their experiences. There is also the risk that the participants' recollections of earlier use, often traceable and represented by the visualised

content and activity history in the Spotify application interface, might undergo varying degrees of credible redefinition and reconstruction for different personal reasons. When conducting the interviews, it has been of importance to combine an open approach to the phenomenon at hand – and thereby keep our assumptions at bay – while, at the same time, maintaining a critical attitude and a striving for thoroughness (cf. Madison, 1988).

The recordings were transcribed and subjected to qualitative meaning analysis in accordance with Kvale and Brinkman (2009) and van Manen (1990). Taking the aim and its interrelated theoretical aspects as points of departure, each researcher summarised their own interview material into condensed transcriptions and these were shared with one another. A shared Google document was created to which the research group contributed to identify specific units in the form of, for example, words, expressions, and phrases that were considered meaningful in relation to the research question. These units were arranged and rearranged into clusters that had certain aspects in common, while the various aspects were eventually sorted into specific themes, each expressing something distinctly characteristic about the meaning of *Bildung* in relation to technology and art. Finally, the themes were written as descriptions with continual connections to the participants' expressions.

Results

In the following the results are presented, introduced by a description of the overarching usage of the service. Thereafter we explore the interrelation between the user and Spotify, and finally the role of Spotify in the users' relation to art is illuminated.

Overarching usage of the service

On an overarching level, the analysis of the interview material shows that music, via the Spotify service, is a common everyday background to daily life for all the participants. The service was referred to by most of the participants as their dominant, or even only, facilitator of music, independent of their genre interests and of whether they worked professionally with music. On the one hand, this result was expected, as being a Spotify user was a prerequisite for participation and Spotify is the dominant service in Sweden (Kask, 2011). On the other hand, the results could have presented a more multifaceted picture with Spotify equal to other distributors of music, but this was not the case – Spotify was the most used. Spotify is accessed by the participants via general digital devices such as mobile phones, computers, and tablets. Further, the participants explained how they played music using Spotify in various situations with a variety of purposes ranging from providing role models in music education to professional work that demands music. They also used music actively to create a setting or mood or passively by having the service auto-generate music.

The analysis shows that the wide variety of music tracks that streaming services such as Spotify offer – based on algorithms – challenges the listener to find meaningful music experiences in ways that are completely different than before access to music through streaming media was possible.

Moving onto the article's focus on musical *Bildung*, the analysis shows that participants with a background of musical experience and engagement, such as playing instruments on an amateur or professional level, went into much more detail concerning music streaming and playback. For instance, participants with experience of music education, whether formal or informal, relied on references outside Spotify, such as articles or reviews in newspapers, to enrich their musical experiences within the service. Such an approach was not evident to the same extent among the participants with little or no formal or informal musical education. Furthermore, those with less music education depended on friends and recommendations from the service to a larger extent, while those with formal or informal music education sometimes even experienced the recommendations provided by the service as crude, wrong, or intruding. This overarching result resembled an echo chamber, in which the less educated are at risk of simply accepting what is served to them, whereas the more educated are able to take more responsibility and be more active in selecting music. Also, the topic of sound quality was brought up in different ways by different participants, again correlating with their background of musical experience, irrespective of age and genre preferences: another example of musical *Bildung* being more accessible to people already having a background in some sort of musical culture. For example, specific loudspeakers or earphones with features like noise cancellation or high-fidelity sound were preferred by those we called "initiated listeners". But even the initiated varied in their demands; close listening required hi-fi equipment, whereas a jog could be accompanied by Bluetooth and ordinary earbuds. Based on these overarching results, it seems that evolving musical *Bildung* demands an active, musically cultivated listener. Hence, using Spotify for musical *Bildung*, as compared to older physical music mediators, demands a greater ability to sort, choose and evaluate the wide range of possibilities that the service offers; use is thereby something more than pure listening in relation to musical *Bildung*.

The interrelation between the user and Spotify

When it comes to how *Bildung* evolves in the interrelation between user and Spotify, the analysis sheds light on crucial dimensions with regard to Heidegger's concepts: thinking-with, learning-with and Being-with Spotify (cf. Heidegger, 1976, 1962,). These three dimensions are all situated within the nexus in which users use the service based on how the algorithms calculate what is being presented and what is reachable. These three dimensions illuminate what Spotify can mean to the user and how Spotify and people's everyday lives are interrelated.

Thinking-with Spotify

When it comes to the use of Spotify, the participants offered a fairly multifaceted picture of what we here call *thinking-with* Spotify. Such an approach exposes how Spotify-use can deepen knowledge *about* music and in that way broaden the listener's horizons. Thinking-with Spotify also includes developing knowledge in relation to composition and sound-scapes and presenting classical as well as popular music styles. Some participants described how Spotify led them to establish new reference points in their understanding of music history. Furthermore, in comparison to the previous situation, before access via streaming, in which incentives or means to pursue recommendations had been lacking, the use of Spotify has made it possible to both pursue new listening recommendations and catch up on earlier recommendations from friends and acquaintances: Spotify has a recommendation feature that relies on user-generated algorithms. Many of the artists and genres the participants referred to would, in their estimation, not have become a part of their lives if it were not for Spotify, which is why the service must be regarded as something radically different from its physical predecessor, the large record store. Such experiences offer a distinct widening of musical orientation, which can be tied to evolving *Bildung*, since the users learn of hitherto unfamiliar genres and musical traditions. This experience is described as explorative: here, Spotify's features of references and suggestions based on preferences and earlier activities make it possible not only to track favourite artists to other musical constellations, but also to discover excellent artists or recordings within already-familiar genres. These types of features were repeatedly referred to by all the participants. Another aspect of thinking-with Spotify concerns insights into the prevailing popular tastes and current musical trends, through the ratings and the recommendations of an artist's most played songs and greatest hits. Even if it is difficult to extract relevant results from the interviews in this specific case, and overlook usage of other music streaming services, Spotify is valued as a useful reconnaissance service for the "stressed contemporary human" (the computer engineer) in need of a hint regarding the artist's most representative and popular songs. Hence, Spotify appears to be a guide and teacher as well as a music library.

Insofar as the use of Spotify can be said to move a human being into new landscapes of music and thus increase their knowledge of music, genres and artists, Spotify can also play a role in getting people culturally interested in music for the first time. Several of our participants described how they used Spotify to share their experiences of good and exciting music and artists. These sharing moments could occur in everyday one-on-one dialogues about music with a friend, when a father brushes his son's teeth during the bedtime routine, or at dinner parties where the guests take turns using Spotify to share and talk about their favourite songs and artists. Several of the participants emphasised the use of Spotify in cultivating other people musically in more formal teaching and learning situations. The dance teacher, for instance, referred to her responsibility to broaden musical awareness, experience, and knowledge among her students. She wanted to "offer a palette" of music, including a variety of

genres, and promote insights about the importance of conscious music selection, since different types of music provide a variety of affordances for certain dance techniques or styles. The troubadour-music-teacher talked about "listening as a base for discussions about music" with his students. He also encouraged his students to create their own playlists based on specific aspects of music. Through such an assignment, the troubadour & music-teacher contributed to the movement of other people. This moving works both ways, since it also involves letting oneself be moved by others, like the after-school teacher, who added new songs to his listening repertoire from recommendations from his students, or the participant who invited people to contribute to a specific playlist intended as the soundtrack for an upcoming party.

It should be noted that Spotify, or any other streaming service, does not constitute the sole context for musical *Bildung*. One of the participants described how reading on the Internet, following streamed TV series, and exploring Spotify have all resulted in the self-made construction of a "family tree" depicting the various roots and branches of American rap music. The rather complex web of one's own musical *Bildung* was a recurring theme among the more initiated participants, those with musical education. Spotify apparently often serves as one of many influencing mediators, including newspaper reviews, music magazines, podcasts, streaming TV services, and radio, as well as family members, friends, acquaintances, and social media influencers. Thinking-with Spotify apparently exists in a wide context, opening up a rich potential for the evolving of musical *Bildung*.

Learning-with Spotify

Another important aspect of using Spotify concerns musical competence development, including learning how to perform music, practise instruments, develop musical skills or practise new as well as familiar songs in a more nuanced or sophisticated way. Several participants expressed that they used Spotify (at least the mobile application version) to play along with and appreciated it as a way of learning in preparation for future musical tasks. Both younger and older participants described how they played the drums, guitar, harmonica, piano, or sang together with streamed music for the sake of practicing a particular instrument, learning a specific song, or just for the joy of performing music despite the absence of an audience. The organisation consultant, for example, described his individual Spotify jam sessions, which he created with the help of Spotify, as the "ultimate musical experience". Playing for its own sake does not exclude using Spotify to improve one's abilities to perform in front of and together with other people. Several of the participants pointed out how they used Spotify to learn new songs before they rehearsed with a band or choir, prior to an upcoming freelance gig, or to prepare for teaching. Hence, learning-with Spotify takes place in formal as well as informal settings.

Being- and becoming-with Spotify

Being-with Spotify, the existential dimension of the interrelation between humans and streamed music, seems to take place in both passive and active ways. For the passive user,

Spotify seems to facilitate a ceaseless presence of music and thus becomes a steady musical companion. Without comparing or evaluating different ways of relating to the music played, it is obvious that the use of Spotify inspires various moods and activities. Hence it is difficult to specify the level of activity. In some instances, Spotify mainly works as a form of back-drop for people's ongoing activities, as in the case of the café owner who had rather rigorously selected and compiled specific playlists to be played in the background "for the customers to feel at ease or comfortable", as mentioned above. This way of relating to music as a backdrop, outside the immediate focus of the listener, should not be seen as a case of listeners positioning themselves as indifferent to music or the potential purpose of music in life. Rather, this way of relating could be regarded as another form of awareness, or of considering alternate meanings of music. The college student put a lot of energy into creating different playlists, each of which suited the study of particular school subjects. Each list consisted mainly of a similar kind of instrumental music, without major internal musical differences in tempo or sound. The lecturer, who was doing a lot of work from home, described streaming via Spotify more or less constantly. She showed how Spotify alternately became both the backdrop and foreground for the same type of activity: "Every now and then I take a micro pause from the work tasks and really listen to the music. Then I return to work and let the music keep on playing in the background." However, as one of the 13-year-old participants showed, the use of Spotify is not limited to hours of activity and awakeness. Among her various playlists, she had compiled a special "going-to-sleep playlist".

Besides providing a backdrop for everyday life, everyday work and everyday learning activities, our analysis showed that Spotify also has a more apparent and direct inspirational role. Among the participants, many described how the use of Spotify prompts them to explore, create and perform. One of the teenagers used the hip-hop resources in Spotify for the creation of new beats and rhymes, while the computer engineer traced and explored songs she heard on the radio in Spotify that then inspired the composition of new songs within the same genre. The retired media teacher discovered and started to appreciate a Swedish female artist through Spotify, which also resulted in a decision to see the artist performing live. The inspirational role of Spotify really shone through the story of the organisation consultant, who, on learning to play a new instrument, gave the credit to Spotify. Something happened to him while listening to a rap song on Spotify that contained a sample of double bass: "I couldn't quite let go of that sampled contrabass, so … I just had to learn that!" Now he has bought and begun to study the instrument. Spotify also appears to be a source of inspiration for those who have a more professional relationship with music, such as the dance teacher, who actively searched for new music for her choreographies. Another example is the young music artist who actively explored songs in different genres and created lists in specific styles that mediated specific sounds and attitudes that inspired her to further music making. The inspiration that the participants experienced through

the streaming service also included the artwork aspect, taking note of other artists' visual expressions, such as their disc covers.

The formation of self is an aspect of Being-with Spotify, which is an integral dimension of learning, developing competences, and becoming inspired in relation to the use of Spotify. Most of the participants shared the graphic user interface of their Spotify account, hence putting on display their listening history. Spotify's recommendations are influenced by the user's activities, preferences, and playlists. These visualisations can be understood as representations of the participants' musical interests and activities, with more or less accuracy. In addition, the participants were, to some extent, engaged in curating their music listening through the use of playlists generated by a large variety of criteria. Some of these criteria applied to the different ways in which the user created an overview of her favourite genres, groups, artists, and songs. Other criteria related to strategies for organising new music for future handling and evaluation. However, many of the criteria were directed towards the user herself, and who the user wanted to be, as well as what she wanted to do and experience in different life situations. Thus, for several participants, different playlists told stories about their shared history with others, their everyday activities and moods, their professions, and their future dreams, as well as how they wanted to present themselves to others. Additionally, in many cases their interfaces showed highly variegated organic playlists pointing in several directions. Regardless of whether listeners express themselves more overtly in existing public playlists or prefer to engage with Spotify in relatively unobtrusive ways – as when they accept suggestions for related artists, or read about artists' discographies and the ups and downs of their careers – Spotify has a role in listeners' self-formation processes. Different participants illustrate different aspects of *Bildung*, for example the well-informed expert who has done his homework on a great variety of artists in a certain genre (the college student), the young influencer who creates a sense of belonging and a common history among childhood friends through a party list of Disney songs, and the young music-artist who uses Spotify as a network for building a fanbase, spreading her music, and promoting herself as an artist. They all use Spotify in different ways and with different motives, but the streaming service is an integral part of their being, becoming and belonging.

The role of Spotify in the user's relation to art

Spotify is predominantly presented as a service that provides music as an end in itself and provides music that can be used for different purposes. There were few statements among the participants that supported the idea of Spotify as a tool for strong musical experiences (cf. Gabrielsson, 2011). However, that does not mean that such events do not occur. The analysis makes clear that Spotify provides features, functions, and applications that contribute to the user's relation to art and how the user can come into a state of self-formation. This section will recount the participants' everyday experiences of Spotify as a gallery of opportunities concerning music as works of art and musical *Bildung* as a journey constituted by

works of art. Accordingly, the concept of art is defined here in a twofold way: on the one hand as artworks that the user engages with, and on the other hand as a contributor to a person being thrown into *Being* (cf. Varkøy, 2017).

Spotify as a presenter of works of art

Deriving from contemporary history where ownership of physical recordings has been replaced by streamed access to digitised music, participants in the study painted a twofold picture of the value and status of the pieces of work that the Spotify service presents. The older participants, who were active musically prior to digitalisation, witnessed how the Spotify service mainly serves as a source of information about, and insight into, music and artists which cannot compare with what ownership and physical artifacts offered in terms of the possession and valuing of music. Our youngest participants, on the other hand, did not make such references at all. Instead, Spotify was a "big thing" in itself, present on an everyday basis. It is as if the service blends into the common, an asset always present, but instead of being out of the ordinary, as Heidegger describes art, the service actually constitutes and frames the very basis for "the common". In that way, the service would be defined as a tool for presenting possible artworks by offering the potential of being hit and by that thrown into Being. There were indeed remarks about how the streaming service played a crucial part in transforming the user from one stage in life to another.

All the participants shared numerous examples of how the Spotify service managed to broaden their horizons and deepen their engagement in musical *Bildung* by presenting tracks and artists that were not already familiar. Precompiled playlists, for example, provide the *mise-en-scène* of a cosy and relaxed break at a café and also offer the possibility of discovering particular pieces or artists within the playlist that can be played in the future, or further investigated in terms of an artist's musical biography. For the user, such actions are made possible via features like "saving" a song, marking a track with a "like", or displaying the streaming history on their interface. Another way to facilitate Bildung is to use the "similar artist" feature, which can be interpreted as being served more of the same, more of the already familiar. However, this feature also raises the possibility of discovering new aspects, interpretations, instrumentations, representations, and so on, of a piece of music. The feature example sheds light upon the radical new aspect of music streaming, namely the intertwined relationship between the user and the service. The service interprets who the user is and calculates what the user should want, and this is intertwined with the user who can intervene and, by their own activity and choices, change what the service provides, something which is in turn based on what the service opens up for. This cyclic interplay can be conceptualised as an evolving *Bildung*.

Another important aspect of using the Spotify service as an exhibition gallery of music concerns how Spotify works as a distinct node, among several others, through which the participants pass in creating individual trajectories of *Bildung*. An example of such a

trajectory – and where the music is rather distant from the participant's ordinary horizons – is one of the teenagers' streaming history of Siw Malmqvist, a Swedish female singer, now in her eighties and very popular during the 1960s. Through the use of Spotify, she was discovered by this young teenager who searched for music that included the name of a friend. Another teenager provides the example of how music from the 1940s and the American vocal group The Ink Spots has been encountered in the post-apocalyptic role-playing video game *Fallout* and then identified and enjoyed via the streaming service. Similar stories were shared by many of the other participants. The lecturer, to name one, explained how the music recommendations of a "trusted music journalist" in a certain newspaper were "followed", meaning the participant checked them out through the Spotify service. In this way, Spotify constitutes an exhibition gallery of musical artefacts, a place through which one's own and others' trajectories of musical *Bildung* run, conjoin and evolve.

The participants also spoke of Spotify as a tool for finding works of art that shape and construct history. One of them (the organisation consultant) described how Spotify enabled a recapturing of a musically lost childhood, where certain music that friends could listen to and hence be shaped by was not permitted in the participant's home. This participant was surrounded by a strict Lutheran religious environment that forbade the music of artists like Bon Scott, AC/DC and Black Sabbath. In this way, the service provided an opportunity for alternative personal histories to be written, as well as re-written in retrospect. It might even be possible to talk about a musical re-*Bildung* that evolves in this human–technology relationship.

As an exhibition gallery the streaming service, by what it exhibits and offers, also opens the possibility for the artist to be created by art and for the artist to create art. However, one of the participants (the young music artist) expresses Spotify's significance as somewhat elusive: "It is difficult to know exactly what you have been inspired by". Still, streaming was described as adding something, only to be transformed by the participant's own musical creation.

The participants predominantly referred to music by using the artists' names. These artists are often included in playlists, either personally created and compiled by the user or prepared by someone else, such as a friend, or by Spotify itself. Albums, on the other hand, were not primarily referred to by name. Even though albums have titles, they were most often referred to as simply "albums". Early in the history of recorded music, musical pieces were arranged not only as a general compilation, but in a specific order in which one composition leads to another. The exact order of songs are seen as parts constituting the album as a piece of art, which some of the participants (for example, the computer engineer and the organisation consultant) also emphasised. Such a view of the album takes into account the philosophical idea of a work of art, as well as the legal concept of the threshold of originality, used to assess whether a particular work can be copyrighted.

When it comes to listening to whole albums, in which the songs follow each other in an order the artist may have intended as a work of art in itself, the participants' experiences were diverse. The analysis showed that album listeners are aware and active. It also highlights a need among the participants to identify and contextualize the music in order to make it a more significant part of the *Bildung* journey. This may, for example, apply to the position of the piece of music in a broader discographic perspective, such as which album a specific song is included in, the year of the album release, and the type of album (demo, EP, collection, etc.). The young music artist always listened to new albums she was interested in as whole albums. She expected that the artists had composed the songs, as well as the order they were placed in, deliberately. This participant, in the same way as the troubadour & music teacher, created a space where such holistic album listening was possible. Other participants blamed Spotify, and streaming in general, for having destroyed that kind of listening. Even though music, in the form of music files, is the main product offered by Spotify, a number of extra features provide additional dimensions to the streaming service as an exhibition gallery for works of art. For instance, the feature of playlists was not only used in private contexts, for private purposes or for personal sharing among friends and acquaintances. One participant (the professional DJ) describes how the Spotify service, and especially its playlist features, has come to have professional significance. By creating and publicly sharing professional playlists, and thus branding himself as a skilled and capable DJ, his audience and the number of guests at the club where he played could grow in number.

Despite all the possibilities that the features of the Spotify service offer in terms of presenting music to the listener, some participants still complained about the difficulty of finding something that they really liked. Whether this issue was a result of the Spotify service's lack of sophisticated tools for orientation and search, or whether it was related to the difficulty of specifying musical preferences remains unclear.

It seems that many of the participants fell into two categories of listening: focused, active listening, which occurred among more musically experienced participants, and passive background listening, among participants with less music education. The different listening modes were expressed, respectively, as "to listen" or "to have music going on [in the background]". According to the young music-artist, "to listen" referred to the way she listened and what quality of sound and surroundings such listening demands. On the other hand, "To have music going on", which all the participants spoke about, does not demand any special sound quality; it is, for example, acceptable to listen through the built-in speaker in cell phones with low sound quality, a perception that also the troubadour & music teacher expressed above. The dance teacher let the music flow directly from an iPad when listening at home. The retired media teacher reported sometimes skipping passive background listening altogether, as it was not seen as a meaningful activity. He argued that Spotify cannot offer opportunities for active, focused listening, which was defined as "total

relaxation". Music, for the retired media teacher, was described as an interest, something to be devoted to, but also as something that must meet certain qualitative expectations to be able to compete with the tightly scheduled obligations of everyday life. Focus, intense contemplation, an engagement, or what could be defined as inner curiosity – these are what constitute musical experience, and Spotify cannot offer them, according to this participant. At the same time, the same participant claimed to listen to Spotify music at least once per day, preferably when alone at home. These two somewhat contractionary standpoints reveal an ambiguity in what the Spotify service may offer.

The Spotify service as a work of art in itself

The Spotify service provides music but was also described by the computer engineer as "working like magic". Music starts to play the instant after pressing play; the service had been used by them all for so long that this "magic" feature had become the new default, the new common. The service was called "fantastic" with reference to the actual user interface that meets the participant, as the representation of what the music catalogue can provide: new artists are being discovered, and "old" music from earlier stages in life is being re-discovered. The service was described as "almost a bit spiritual – [as you use it to] seek something beyond the ordinary" (the organisation consultant). Several of the participants actually described Spotify as something that "opens up the world".

Most participants stated that they focus on the service's instrumental features and, accordingly, treat the service as a mediator of music. However, there were also situations described in the material in which the mediator function expanded, and the service took on the dimension of art. It is possible that the Spotify service could be regarded as a work of art in itself, as it shows the potential to throw subjects into new possible ways of Being where history is written. For instance, there were many testimonies about how the Spotify service was used to sound out the surroundings, which could be understood as a way to escape what Heidegger would call the "earthly" aspects of the concrete world and to reach the "worldly" dimensions of how the world exists on transcendental and abstract levels of meanings, thoughts, dreams and beliefs. In the subway, the young music artist listened to music via earbuds. This meant that the music was very close to the subject, filling her with sounding music which drowned out the noise of the train and the earthly surrounding, the other passengers, and the stressed atmosphere of city life. The service lets the user escape into a different "world" within its musical cocoon. The same was true for the lecturer, who preferred to listen to music loudly in the car whilst travelling to work or driving greater distances, and when working alone at home so as to be enveloped in a certain state of being. Yet another example of how the Spotify service can create a state of being is how it mediates "intense relaxation" (the computer engineer). The service can swiftly provide music that throws the subject into an alternative state of being – a transformative move she cannot perform on her own. Another participant recounted how she became captured or thrown

into a state of flow which it was difficult to escape from. Based on the reasoning above, it is possible to state that Being-with Spotify as a work of art constitutes an essential part of musical *Bildung* processes where intertwined essential and existential dimensions of music are internalised in different social, historical and spatial contexts. This is possible because the service and what it offers are accessible to the user in all these different contexts. Furthermore, via its algorithms, the service is malleable and adaptable to the users' settings, which is radically different from any older versions of musical media.

Discussion

In the following, the results presented above are related to the concepts of *being-possible, ability-to-be*, and *Spotify as the Other*. In this way, dimensions of the evolution of *Bildung* within the relation between humans, music, and technology become visible.

Being-possible – ability-to-be

The results made it clear that the relation to, or use of, Spotify can be a part of being-possible, a larger project of one's own life, a journey of *Bildung*. Many aspects of being-possible and ability-to-be emanated from the radical double communication within the intertwined relationship between the Spotify service and the user. This can be about transformation or the discovery of the unfamiliar or unknown when it comes to both music and life. Spotify opens the possibility of the spreading of musical artistic creations as well as getting feedback on one's musical work, which contributes to a human's becoming. Being-possible can also be about self-formation through continual listening to personally created play-lists or to those offered by Spotify. Such engagement can also contribute to a form of commemorative rootedness, through lists created in nostalgic moods to connect to the past. Hence, ability-to-be can also be seen as an aspect of *Bildung* that gives humans a perspective on themselves and common cultural-historical contexts (Heidegger, 2002, 1960). An adjacent aspect of being-possible is the activity consisting of creating a musical world, where past, present and future are knitted together through the use of streamed music, alleged connections between various artists or works, discographies on display, and biographies distributed by Spotify, as well as other sources. It is obvious that these processes of attaining one's full potential can be private as well as social, and one-sided as well as pluralistic, when it comes to use and becoming.

The interview material indicated that musical and to some extent digital knowledge and competences are needed for human beings, among other things, to be able to realise visions and enable life projects, the ability-to-be – in relation to the service. For example, to realise one's imagined self as a rock-star requires the ability to find the "right" tracks among all the possibilities Spotify offers to accompany the *Bildung* process, which in turn is based

on musical and digital experiences. It has become clear that musical and digital competences constitute important prerequisites for dreams to come true. The use of Spotify can also be a process of internalising such abilities or competencies. It can be about practising musical skills, deepening a musical interest, taking on an imagined or expected role, handling a role, or mastering a skill or specific (professional) task – the being-possible.

Another angle of being-possible is Spotify as a source of inspiration regarding the ways we envision our future lives, imagine more promising or authentic paths of life, or dream of musical life-projects. It can, as the participants have shown, be about imagining oneself as a fellow musician, developing existing musical skills, broadening repertoires, or training specific musical competencies before a gig or audition. Their experiences are in line with the way Heidegger (2002), in his essay *The Origin of the Work of Art*, describes how the ancient Greek temple – here represented by Spotify – "opens up a world" and also gives the participants "their outlook on themselves" (p. 21). These perspectivising dimensions are also evident in the way the service is used for finding works of art that shape and construct history among the participants. One of the examples showed how Spotify enabled a participant to recapture a lost part of his life's musical history and, consequently, to write as well as re-write an alternative history in retrospect – a journey of evolving *Bildung*.

Spotify as the Other

The analysis of the interview material shows that the significance of Spotify, for the human relation to technology and art, goes far beyond the mere mediation – and projection – of music. Rather, the participants are often engaged in learning, thinking and Being with Spotify as the Other. On the one hand, some participants were guided by Spotify toward the rather enclosed path of the mainstream. This path represents a relation to art which is marketed and valued as a commodity for stereotypical groups of music consumers. In such a context, establishing a state of Being-with towards the streaming service, as well as a transformative relation to music, becomes complicated. This was exemplified by the way the influencer relied on Spotify's capacity to suggest customized and representative playlists, like the daily mixes. On the other hand, for a number of participants the streaming service instead opened up new, winding roads of discovery. The way technology, as the Other, in interrelation with the human being and the work of art transforms the way we encounter and perceive art can, in line with Heidegger's (2002) perspective on the work of art, be understood as *a new beginning.* Nevertheless, while totally new possibilities for *Bildung* are offered, in new ways and with new accessibility, these possibilities also seem to require certain musical and digital competences. Consequently, Spotify as the Other takes on varied roles, which are shaped by the actual user and his or her relation to music and technology. This mutual relationship between the human being and technology shapes the journey of *Bildung*.

The dimension of learning-with Spotify is evident from the ways in which the participants experienced the service as a guide to fruitful listening. While some appreciated that Spotify leads them to an artist's most played songs and mainstream hits, other participants expressed the feeling that such functions are too limiting and do not offer any new experiences or widened musical horizons. Still, the results show that Spotify actually teaches as well as learns from the user, and thereby functions as a guiding companion in the users' processes of *Bildung*. It can be about introducing unknown artists or genres, at the same time as earlier listening habits can be preserved.

The result also points out some of Spotify's shortcomings as a functional Other in the quest for *Bildung*. For example, participants spoke of defects in Spotify's search system when it came to searching for criteria to find preferred songs. When the participants experienced this absence of guidance, Spotify was perceived as an annoying and intrusive Other. These shortcomings show the need for a competent listener. To think-with Spotify, as an aspect of *Bildung*, puts a lot of responsibility on the human being. This responsibility concerns essential musical knowledge about artists' names, participating co-players, lyrics and to some extent biographical information. In other words, the human-technology relation demands that the listener be an initiated listener if they are to participate fruitfully on a *Bildung* journey.

Final thoughts

What has become clear is that there are a multitude of possibilities for *Bildung* within fields of tension between "take what you get" and the possibility of being thrown into the unknown – between following canons and dwelling in purposelessness. Music backgrounds, approaches to music, occupations, life choices and lifestyles influence how human beings relate to the streaming of music, and in that way, how musical *Bildung* evolves (cf. Ferm Almqvist et al., 2020).

It has been stated that human beings have the possibility to *become what they are* (cf. Heidegger, 1962, p. 168) in streaming in their relation with Spotify. But, to turn the question around, what possibilities of becoming does Spotify have in these relations? Undoubtedly, Spotify can, in certain respects, be regarded as a representation of the instrumentality and calculation that characterise our time, for we have found expressions and examples of how Spotify, as a mediator of commercial music interests and general preferences of taste, imposes itself on the human being. The results from our study show, however, that Spotify interrelates with humans and offers possibilities for thinking, learning, and being with music as well as technology. In this way, Spotify exceeds the thingness of the Other, becoming a work of art in itself and throwing the user into Being. Hence, Spotify as a work of art might become a starting point, to borrow Heidegger's (2002) words, as a transformative

"leap ahead" and not just an object which "can only be carried along as a cultural phenomenon" (p. 49).

If a radical expansion of Heidegger's original view of humans and technology is allowed by shifting the originally assigned roles while still maintaining his analysis of the significance of 'care', further reflections become possible. Ascribing Spotify a relational role as a counterpart and as a companion in human Being-in-the-world and Being-with-one-another expands the boundaries of where, how, and with whom *Bildung* can evolve. As has been shown, new possibilities for learning and self-formation arise. But at the same time, changing the script, shifting the roles among the actors in this self-formative drama, can cause potential conflicts. Such a risk in relation to the Other, to which Heidegger draws attention, particularly concerns how Spotify might end up standing in a user's way, and by doing so depriving her of opportunities and choices, as well as of autonomy and otherness. Consequently, I, as the Other, run a significant risk of being dominated and displaced by technology. Thus, the prospect of an evolving musical *Bildung*, evoked by the interrelatedness of human-machine-music, hangs in the balance.

Author biographies

Cecilia Ferm Almqvist is a professor of education at Södertörn University and a professor in music education at Stockholm Institute of Music Education. Her 2004 doctoral dissertation was a phenomenological thesis about teaching and learning interaction in music classrooms. Almqvist's philosophical and empirical research focuses on democracy and inclusion in diverse music educational settings and special educational contexts. She has presented her work internationally at several music educational and educational conferences and published in well-known scientific journals such as *RSME, PMER, BJME, IJME, VRME*, and *Reconstruction*.

Susanna Leijonhufvud holds a PhD in music education from the School of Music in Piteå, having defended her dissertation, *Liquid Streaming – the Spotify Way to Music*, in 2018. In addition to music and digital technology, she has also published within areas of philosophy, more precisely phenomenology. Leijonhufvud is currently an associate professor at Stockholm Institute of Music Education.

Niclas Ekberg holds a PhD in pedagogy and is senior lecturer at Luleå University of Technology. Ekberg's main research interest is in philosophical perspectives on living in – and being education in – a digitalised world. His recent publications include the article "Evolving Bildung, technology and streaming art" (2020), co-authored with Elias Schwieler.

References

Arendt, H. (1958). *The human condition*. University of Chicago Press.

Burkart, P., & McCourt, T. (2006). *Digital music wars: Ownership and control of the celestial jukebox*. Rowman & Littlefield.

Burkart, P., & Leijonhufvud, S. (2019). The Spotifyication of public service media. *The Information Society, 35*(4), 173–183.

Burman, A. (2018). *Kultiverandet av det mänskliga. Essäer om liberal education, bildning och tänkande.* Daidalos.

Calderhead, J. (1981), Stimulated recall: A method for research on teaching. *British Journal of Educational Psychology, 51*(2), 211–217. https://doi.org/10.1111/j.2044-8279.1981.tb02474.x

Ekberg, N., & Schwieler, E. (2020). Evolving Bildung, technology and streaming art. *Popular Communication*, 1–16. https://doi.org/10.1080/15405702.2020.1744608

Eriksson, M., & Johansson, A. (2017). Tracking gendered streams. Culture unbound. *Journal of Current Cultural Research, 9*(2), 163–183.

Eriksson, M., Fleischer, R., Johansson, A., Snickars, P., & Vonderau, P. (2019). *Spotify teardown: Inside the black box of streaming music*. MIT Press.

Ferm Almqvist, C. (2020). Thinking, being, teaching and learning with Spotify – aspects of existential and essential musical *Bildung* through listening in the classroom. *International Journal of Music Education and Technology, 3*(12), 169–192.

Ferm Almqvist, C., Leijonhufvud, S. & Ekberg, N. (Eds.). (2020). *Explorativ bildning i strömmande media – Spotify som ett case.* Södertörn University Press.

Flick, U. (2014). *An introduction to qualitative research* (5. ed.). Sage.

Gabrielsson, A. (2011). *Strong experiences with music: Music is much more than just music* (English ed.). Oxford University Press.

Giroux, H. A. (2004). Cultural studies, public pedagogy, and the responsibility of intellectuals. *Communication and Critical/Cultural Studies, 1*(1), 59–79.

Heidegger, M. (1960). *Der Ursprung des Kunstwerkes*. Reclam.

Heidegger, M. (1962). *Being and time.* (J. Macquarrie & E. Robinson, Trans.). Harper & Row.

Heidegger, M. (1966). *Discourse on thinking.* (J. M. Anderson & E. Hans Freund, Trans.). Harper & Row.

Heidegger, M. (1976). *What is called thinking*. Harper Perennial.

Heidegger, M. (1977a). *Gesamtausgabe. Abt. 1, Veröffentlichte Schriften 1914–1970, Bd 5, Holzwege*. Klostermann.

Heidegger, M. (1977b). *The question concerning technology, and other essays*. (W. Lovitt, Trans.). Harper & Row.

Heidegger, M. (2002). *Off the beaten track*. (J. Young, & K. Haynes, Trans./Eds.). Cambridge University Press.

Johansson, S., Werner, A., Åker, P., & Goldenzwaig, G. (2018). *Streaming music: Practices, media, cultures*. Routledge.

Kask, J. (2011). Evolving market channels in the legal Swedish music industry: A dominant design approach. In E. Segelod et al. (Eds.), *Studies in industrial renewal coping with changing contexts* (pp. 95–116). Mälardalen University.

Kozinets, R. V. (2002). The field behind the screen: Using netnography for marketing research in online communities. *Journal of Marketing Research, 39*(1), 61–72.

Kvale, S., & Brinkmann, S. (2009). *Den kvalitativa forskningsintervjun*. Studentlitteratur.

Lam, W. Y. K. (2008). Metacognitive strategy use: Accessing ESL learners' inner voices via stimulated recall. *Innovation in Language Learning and Teaching, 2*(3), 207–223. https://doi-org.proxy.lib.ltu.se/10.1080/17501220802158917

Leijonhufvud, S. (2018). *Liquid Streaming: The Spotify way to music* [Doctoral dissertation, Luleå University of Technology]. DIVA. http://ltu.diva-portal.org/smash/record.jsf?pid=diva2%3A1171660&dswid=-3468

Leijonhufvud, S., & Ferm Thorgersen, C. (2015). Music as art – art as being – being as music: A philosophical investigation into how music education can embrace a work of art based on Heidegger's thinking. In *Philosophy of music education challenged: Heideggerian inspirations: Music, education and personal development* (pp. 113–128). Springer. https://doi.org/10.1007/978-94-017-9319-3_7

Lieng Jakobsen, A. Y. (2018). *Eventization of listening: A qualitative study of the importance of events for users of the streaming service Spotify* [Master thesis, University of Oslo].

Madison, G. B. (1988). *The hermeneutics of postmodernity: Figures and themes.* Indiana University Press.

Nielsen, F. V. (1998). *Almen musikdidaktik*. (2nd revised edition) Akademisk forlag.

Nylund Hagen, A. (2015). *Using music streaming services: Practices, experiences and the lifeworld of musicking* [Doctoral dissertation, University of Oslo].

Peters, M. E. (2019). Heidegger's embodied others: On critiques of the body and 'intersubjectivity' in Being and Time. *Phenomenology and the Cognitive Sciences, 18,* 441–458.

Pio, F., & Varkøy, Ø. (2012). A reflection on musical experience as existential experience: An ontological turn. *Philosophy of Music Education Review, 20*(2), 99–116.

Pio, F., & Varkøy, Ø. (2015). The intrinsic value of musical experience. A rethinking: Why and how? In F. Pio & Ø. Varkøy (Eds.), *Philosophy of music education challenged: Heideggerian inspirations: Music, education and personal development* (pp. 45–60). Springer.

Postill, J., & Pink, S. (2012). Social media ethnography: The digital researcher in a messy web. *Media International Australia, 145*(1), 123–134.

Snickars, P. (2016). More music is better music. In P. Wikström & R. DeFillippi. (Eds.) *Business innovation and disruption in the music industry* (pp. 191–210). Edgar Elgar.

Snickars, P., & Mähler, R. (2018). SpotiBot – Turing testing Spotify. *Digital Humanities Quarterly, 12*(1). http://urn.kb.se/resolve?urn=urn:nbn:se:umu:diva-147699

Thomson, I. (2004). Heidegger's perfectionist philosophy of education in Being and Time. *Continental Philosophy Review, 37*, 439–467.

van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy.* State University of New York Press.

Varkøy, Ø. (2015). Bildung. Between cultural heritage and the unknown, instrumentalism and existence. In M. Flemming, L. Bresler & J. O'Toole (Eds.), *The Routledge international handbook of the arts and education* (pp. 19–29). Routledge.

Varkøy, Ø. (2017). *Musikk – dannelse og eksistens.* Cappelen Damm Akademisk.

Werner, A., & Johansson, S. (2016). Experts, dads and technology: Gendered talk about online music. *International Journal of Cultural Studies*, *19*(2), 177–192.

Wikström, P. (2009). *The music industry: Music in the cloud.* Polity.