Subjectivity, culture and the datafication of music

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Abstract
The main objective of this article is to critique the notions of subjectivity, identity and selfhood underlying key approaches to the datafication of music, and some key normative positions associated with those approaches. I begin by showing how some of the most sophisticated and influential approaches to datafication of music (by Eric Drott and Robert Prey) draw on theorisation of the harms associated with datafication that depend upon the idea of 'subjectification'. I then question this conception of subjectivity, tracing its origins in earlier modes of social theory. I argue that the emphasis on subjectification has resulted in approaches to digital identities, in studies of datafication in general as well as in culture and music, that focus on how technologies imply, construct or 'demand' certain 'subject positions' on the part of users. This approach, I claim, fails sufficiently to engage with the actual practices and lived experiences of users or audiences, and frames them in a way that downplays, neglects and even evacuates agency and autonomy as elements of subjectivity, identity and selfhood. I then argue that the normative basis of such subjectification critiques as applied to music is limited because those critiques depend on the limited conceptions of subjectivity, identity and selfhood characteristic of subjectification approaches in general. I also show that Drott and Prey's accounts fall back on different groundings for critique than the subject formation theorising they purport to offer. These groundings are provided by two rather different theoretical concerns: political-economic critique regarding capitalist power and critiques of surveillance and privacy. I close by offering suggestions for better models of selfhood, identity and subjectivity that might inform a more integrated account of political-economic, socio-cultural and psychic domains. I also comment on the kinds of methodologies that might be entailed by adopting such models.

Keywords
Automated music recommendation, critical data studies, critical algorithm studies, datafication, music audiences, musical subjectivity, platformisation, users

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'Datafication' has evolved as an important critical term for 'the transformation of social action into online quantified data' (van Dijck, 2014: 198). The processes it describes, and the uses to which data are put, have been the object of public concern and critique, much of it centred on how datafication permits tracking of what people do and prediction of what they might like to do. An academic field known as critical data studies has developed in response to the increasing importance of digital data in economic, political and social life. Echoing growing public concern, it addresses, among other issues, questions of surveillance, privacy and the commodification of intimate aspects of people's lives (Hepp et al., 2022).

Businesses have gathered information about the consumers of their products since the rise of market research in the early twentieth century, and states have long collected information about citizens, but it was the onset in the 2010s of digital platforms that made datafication a key issue in contemporary social science and humanities. For digital platforms depend upon the 'collection, algorithmic processing, circulation, and monetization of user data' (van Dijck et al., 2018: 4). Datafication then is strongly connected to platformisation, and to a whole set of related concerns about computation in the contemporary world, including those that revolve around terms such as 'algorithms' (often in relation to automated recommendation), prediction and 'personalisation'.

Culture too has been subject to datafication, platformisation and personalisation. In the 1990s and 2000s, cultural-industry businesses, with their economic models based on ownership of copyrights, felt that their assets were threatened by easy digital copying and sharing. Digital platforms emerged as a solution by foregoing the interactivity, open-ness and tinkering that characterised the architectural principles underlying an earlier phase of the web in favour of security and convenience for users (Andersson Schwarz, 2014; Li and Hesmondhalgh, 2024; Cohen, 2012).

Platformisation in the cultural industries (Poell et al., 2022) means that the IT sector now plays a crucial role in the circulation of culture, and some of the key platforms, flush with cash, operate divisions devoted to the production of culture: Netflix and Amazon Prime, for example, out-spend all television networks and many film studios (Afilipoaie et al., 2021). Meanwhile firms based in the cultural sector (Disney, Paramount etc.) have launched their own digital platforms and apps, as they migrate away from older forms of circulation such as 'terrestrial' broadcast and cable television. These new systems of platformised circulation, across all cultural sectors, now involve the collection and sifting of massive quantities of data, both about cultural products themselves and also about their audiences – now increasingly conceived as 'users'. They also make available very large catalogues of cultural content, and crucially for our present purposes they have developed techniques of 'personalisation', based on the use of automated and to a lesser extent 'human-curated' recommendation to enable audiences/users to navigate this abundance (Seaver, 2022). Personalisation has implications for the way in which media and culture know and address their audiences, and therefore for the forms of subjectivity, sociality and collectivity that audiences can develop.

Cultural analysts have begun to consider some of these implications (Mathieu and Jorge, 2020). But they have often done so by applying concepts and insights from critical data studies developed in relation to other domains, such as health, education, insurance, and the new communicative forms that are labelled 'social media'. This transfer of concepts across different domains raises questions about the degree to which concepts and insights in those domains might be applicable in the cultural realm, given the specificity of culture as a sphere of human activity. By the specificity of culture, I mean the way it particularly involves the social production of meaning aimed at knowledge and aesthetic-artistic experience. Such questions about domain specificity have been too rarely considered, and in seeking to open up a space for discussing them, this article seeks greater clarity about how we might understand the harms brought about by datafication and how they might best be understood in the realm of culture. In particular, because I feel troubled by some of the

understandings of subjectivity, identity and selfhood that have prevailed in some of the major contributions to critical data studies, what I would like to do in this article is raise issues concerning which understandings of subjectivity, identity and selfhood might best inform critical analysis of the datafication of culture.

I draw on the particular case of music. One reason that music provides an intriguing case study, in terms of the issues just raised, is that it involves distinctive and often intimate forms of experience, partly because of its powerful connections to affect and emotion, yet it also involves strongly public and collective forms of experience too (Hesmondhalgh, 2013). This combination of the intimately personal with the collective and public provides an opportunity to test the extent to which prevailing understandings of the effects of datafication on subjectivity, identity and selfhood might be useful in understanding potential reshaping of these elements in a widespread and often cherished cultural form.

There is another reason too why music might be a useful case study, and this is the formidable extent to which it has been platformised and datafied. This may be a consequence of its low bandwidth (making music itself relatively easy to digitalise and share) and mobility (i.e. it can be consumed in many different contexts). I refer here both to the datafication of musical sound (millions of pieces of music have been converted into digital files, and have been digitally analysed and taxonomized and converted into data) but also to the tracking, measuring, processing of audience behaviour and values undertaken by digital audio platforms and their tech partners: what people play, how long they play them for, in what situations they play them in, and much else. Although radio, live music and other forms of musical experience remain widespread, it's feasible to claim that, because of the extensive penetration of digital platforms into musical experience, music has been datafied more than any other cultural domain, and possibly more than many domains of life (even more than health and education, for example). The extensive platformisation and datafication of music are generating significant changes in how music is consumed and produced. Across the world, hundreds of millions of people access music via music streaming platforms (MSPs) (see Dredge, 2022; Hesmondhalgh, 2025). In addition, people experience music regularly and pervasively via video platforms such as YouTube, Instagram Reels and TikTok.

The main objective of this article, then, is to unpack the notions of subjectivity, identity and selfhood underlying key criticisms made of MSPs based on concepts related to datafication, and the normative positions associated with such critique. I do so in the hope that this might help provide a foundation for future work offering more precise and practical critique in the realm of culture, and in a way that might bridge the gap between cultural studies, on the one hand, and critical internet studies (including platform studies, critical data studies, critical algorithm studies) on the other.

There is a terminological minefield here, which I must briefly navigate before proceeding. Quoting the Oxford English Dictionary, many of us would use the term 'subject' to refer to a being that 'thinks, knows, or perceives', and this use is closely related to a common use of the term 'subjectivity': the quality of 'proceeding from or taking place within the individual consciousness or perception', and 'having its source in the mind' (to quote the Oxford English Dictionary). I use the term 'subjectivity' from here on as shorthand for the realm described by a tangled web of concepts such as identity, selfhood, personhood, interiority and individuality. Many theorists influenced by poststructuralism, continental theory and certain modes of psychoanalytic thought are suspicious of notions of subjectivity that overstate the bounded, coherent and interior nature of subjectivity or individuality and understate the way that people's identities are shaped by many forces (see Couldry, 2000: 114–133). Some of these writers, as we shall see, use the term 'subjectification' to describe the processes by which subjects are formed via such forces. One danger of this focus on subject formation is that in concentrating in the forces acting upon people, it understates human capacities

for agency, autonomy and reflexivity. As will become clear, I prefer a more active and agential conception of subjects and subjectivity, but one that is nevertheless attentive to political-economic, social and psychic constraints (Hesmondhalgh, 2013).

I begin by showing, in the next section, how some of the most sophisticated and influential approaches to datafication of music draw on approaches to the harms of datafication that can broadly be framed as 'subjectification' (sometimes expressed as 'subjectivation'), a term used by writers in certain critical traditions to refer to 'subject formation', to how individual identities are (problematically) shaped by discourse, technologies and other forces. 'Data subjects', 'data selves' and 'digital selves' are some of the formulations that have been used (Cheney-Lippold, 2017; Lupton, 2020) by approaches that see the effects of datafication (and platformisation) via their implications for subjectivity, identity and selfhood on platforms from a broadly 'subjectification' angle. I analyse the ways in which this approach is evident in notable contributions by Robert Prey and Eric Drott. The reason I focus on these authors is that they have made particularly notable and groundbreaking contributions that seek to understanding datafication of music in relation to questions of subjectivity. While other researchers have examined changes in musical production, distribution and consumption in relation to data (Arditi, 2019; Negus, 2018; Pedersen, 2020), Prey and Drott stand out for their efforts to draw on critical theories of subjectification and (in)dividuation as a basis for critique.

The following section questions this approach to subjectivity, tracing its origins in earlier modes of social theory. I argue that this emphasis on subjectification has resulted in approaches to digital identities, in studies of datafication in general as well as in the realms of culture and music in particular, that focus on how technologies based on the collection and algorithmic processing of data by platform and other tech companies imply, construct or 'demand' certain 'subject positions' on the part of users or audiences. This approach, I claim, fails to engage with the lived experiences of users or audiences, and frames them in a way that downplays, neglects and even evacuates agency and autonomy as elements of subjectivity, identity and selfhood.

In the next section, I posit that the normative basis of such subjectification critiques as applied to music is limited because those critiques depend on the limited conceptions of subjectivity, identity and selfhood characteristic of subjectification approaches in general. I also show that Prey and Drott's accounts fall back on rather different groundings for critique than the subject formation theorising they purport to offer. These groundings are provided by two rather different theoretical concerns: political-economic critique regarding capitalist power and critiques of surveillance and privacy. Such critiques, and theorisations of them, are vitally important. But I argue that, in the ways that they are mobilised in the accounts considered here, they actually tend to substitute for, or displace, an account of subjectivity, identity and selfhood. One of the valuable aspects of Prey and Drott's contributions is that they seek to integrate political-economic, socio-cultural and psychic domains, but I argue that the weak model of subjectivity they employ inhibits their efforts.

In the final main section, I offer suggestions for better models of selfhood, identity and subjectivity that might inform a more integrated account of political-economic, socio-cultural and psychic domains. I also comment on the kinds of methodologies that might be entailed by adopting such models. I focus on issues I consider to be particularly lacking in subjectification approaches: experience, agency and autonomy.

Datafication of music as subjectification and (in)dividuation

As indicated already, a frequent theme in recent discussions of datafication, and also in studies of algorithms, is the way in which the massive collection and analysis of online data shifts the terms on

which personal (and to a lesser extent collective) identity operates in contemporary societies. One of the leading examples of such an approach in recent internet studies is John Cheney-Lippold's frequently cited book *We Are Data* (2017). Cheney-Lippold (2017: xiii) recounts how '[a]lgorithmic interpretations about data of our web surfing, data of our faces, and even data about our friendships set new, distinct terms for identity online'. Algorithms, he remarks, 'assemble, and control, our datafied selves and our algorithmic futures' (xiii). They do so, Cheney-Lippold explains, in a way that is constantly shifting as new data is accumulated and analysed. Rather than being simply designated as a 'man' or a 'woman', he argues, our identity is assigned something closer to a probability – and this probability constantly shifts as computers read our activities in different ways (28). To consider the implications of such a shift, Cheney-Lippold draws on a short piece by philosopher Gilles Deleuze first published in 1990 on changing modes of control. Deleuze (1992/1990) explored how contemporary societies enact control not through the institutions of 'discipline' and enclosure (prisons, schools, hospitals) analysed by historian Michel Foucault, but rather through constant modulations and postponements, resulting in a supposed shift from 'individuals' to 'dividuals', persons as fragmented, *divided* entities (whereas 'individual' purportedly suggests something *indivisible*). Cheney-Lippold sees such power as apparent in the way that datafication monitors us 'each and every time we make a datafied step, rather than only when we stand before a judge or a police officer detains us' (107). This situation is not without hope: rather than seeing these constructed understandings of us as inaccurate or disempowering, Cheney-Lippold proposes that 'we acknowledge that they merely signal a great diversity of who we are and can be' (32). Nevertheless, the overall tone of Cheney-Lippold's approach is ominous: surveillance, now in the hands of technology companies as much as the state, has become 'subtler, more mundane' but also 'more extensive', and based on our own consent to it (21).[1]

How has the question of datafication's effects on personal identity been addressed in relation to music? Cheney-Lippold's approach is echoed in an important article by Robert Prey (2018). Like Cheney-Lippold and other commentators, Prey appears to be motivated by a commendable desire to question naïve ideas, whether from proponents or critics, that datafication provides accurate appraisals of 'who we really are'. Instead, Prey follows such critical commentators in emphasising that platforms *construct* or *enact* our identities rather than reflect them. Such constructionism fits with longstanding doubts at the meeting point of social theory and psychology concerning notions of 'the individual' that see our selves as bounded and coherent. In the digital era, researchers such as Cheney-Lippold emphasise instead how datafication has fractured 'individuality' into thousands, even millions, of data points and identities, collected and analysed by tech companies; hence the term 'dividual', used earlier. Actual individuals or persons are only dimly aware of such processes. To explore these issues in the realm of music, Prey (2018: 1088–91) skilfully contrasts the way the US 'internet radio' music service Pandora 'understands' the individual listener with how Spotify does so, especially in its popular *Discover Weekly* automated, personalised playlist. In Prey's account, Pandora operates by learning more and more about each listener's tastes and mapping these against very specific musical categories. Pandora's system is based on laborious human categorising that goes far beyond simply assigning tracks to genre, but attributes to recordings a large number of musical qualities and then measures similarity or difference between those recordings, regardless of genre. Through its intensive content-based datafication, it therefore seeks to eliminate the influence of genre categories and the taste of other people, in order to reach the essential tastes of individual listeners. Prey splendidly captures an underlying value: Pandora understands its listeners as individuals who deserve 'liberation from the homogenizing influence of the masses' (1090). By contrast, he argues, Spotify uses the recommendation technology known as 'collaborative filtering'

to understand its listeners (or ideal listener), not only in relation to music and their previous listening but *also in relation to other people's tastes*.

However, it is the similarities between Pandora and Spotify's conceptions of listeners or users that for Prey most powerfully captures how 'the data subject' is enacted in musical personalisation. Both platforms, Prey observes, downplay demographic categories and both reject 'fixed markers of identity' (1092): the subject or person addressed by MSPs has many music identities rather than a single stable one. Although he also, like Cheney-Lippold, refers to Deleuze's notion of the 'dividual', Prey mainly theorises his analysis by drawing on the French theorist Gilbert Simondon, who sought to complicate the notion of 'the individual' by reference to an understanding of persons as constantly in a process of formation, a process he called 'individuation'. The term 'individuation' sounds like it is about a loss of community or collectivity, which might be applied to automated recommendation based on personalisation, perhaps combined with technologies that are carried on or connected to the individual body such as mobile phones. But that is not at all Simondon's concern. His work is philosophical, and specifically ontological, more interested in how the formation of human individuals relates to the formation of physical artefacts such as crystals than in sociological questions about how selves are shaped or, in the language that social theorists used to employ, how individuals are socialised (Simondon, 1992). And Prey is not concerned with the way in which music's ability to create and maintain community might be diminished by algorithmic personalisation in music. That is an interesting and potentially important concern that I and others are seeking to address in other work, but it has not as far as I'm aware been explicitly related to the questions of data, datafication and data subjects that are the theme of this special issue.

Instead, Prey uses Simondon's concept of individuation mainly to draw attention away from questions of whether personalised recommendation, based on datafication, gets us 'right' (though what that might mean is an intriguing question) towards 'how personalized media "see" the individual; how this in turn leads them [personalized media] to enact the "data subject"; and what this might imply for the relationship between the data subject and the subject it refers to' – by which Prey presumably means the actual user of the service. What really matters for Prey is that 'regardless of the relative influence they exert', personalised media are 'part of the broader processes of individuation that enact the individual music listener' (Prey, 2018: 1097). And the problem with these processes of enactment, according to Prey, seems to revolve around a marked trend in recommender systems for suggesting content to users based on their 'contexts' (Seaver, 2022: 88–94). This involves building recommendations on the activities that users are undertaking; partying, chilling, working out are three examples Prey gives. Prey argues that streaming platforms 'unknowingly' emphasise this logic of individuation. The problem with this for Prey seems to be – and here he quotes Cheney-Lippold – that the possibilities of who we might become is based on 'tethering the potential for alternative futures to our previous actions as users based on consumption and research for consumption' (Cheney-Lippold, 2011: 169, quoted by Prey, 2018: 1097). Here however Prey does not pursue a line of critique concerning the idea that tethering future actions to past ones represents some kind of enforced stasis in how people pursue self-realisation. Instead it is very quickly tied to a political-economic critique: the problem is that this allows Spotify to assign users to advertising segments. The basis of critique, then, is really about a kind of commercially driven reification. I will return below to this normative basis for Prey's analysis.

Another writer who has also pursued related themes in a sophisticated way is the musicologist Eric Drott, in two articles published in 2018 on music datafication and algorithmic recommendation. In the former (Drott, 2018a), Drott writes about the 'dreams, desires and aspirations that are projected onto music recommendation' – as evident in various media representations, industry discourses and marketing images produced by streaming companies. Drott sees streaming platforms

as selling to users and advertisers 'in addition to music, a range of subject positions they can adopt *through* music, alleviating them of the burden of having to fabricate such subjectivities themselves' (Drott, 2018a: 335). Like Cheney-Lippold and Prey, Drott also understands the subject positions constructed by music platforms by drawing on Deleuze's analysis of 'dividuals' and 'societies of control', discussed above, though Drott emphasises more strongly than Cheney-Lippold that the illusion of freedom problem is entwined with older more coercive forms of discipline. And Drott goes further than Prey in his critique of the intervention of streaming platforms by aiming to show that as well as being 'dividuated' (split into multiple identities), users are also actively *encouraged* in promotional materials to 'imagine themselves as split, not as coherent wholes but as beings dispersed across a variety of spaces, situations and occasions' (Drott, 2018a: 350). This functions to produce a sense of *lack* in users: in order to generate demand, users have to be convinced that their lives are 'decomposable into a set of moments, and that for each of these moments there corresponds an ideal song or piece of music' (Drott, 2018a: 351). Drott does not, however, seek to conceptualise such a sense lack as harm, elaborating in what ways such lack might, for example, inhibit self-realisation or flourishing, or promote suffering. Instead, like Prey, he seems to move quickly to political-economic critique. Capitalist companies produce a permanent state of disaffection and dissatisfaction in order to accumulate. The overall aim is to make users 'amenable to control' (Drott, 2018a: 351).

The second article by Drott (2018b) develops these views further by examining the techniques used by streaming platforms to understand their users, and to gear recommendations towards them.[2] Similarly, for Drott technologies of algorithmic recommendation 'demand' users who are 'dynamic and adaptable' and who imagine themselves not as subjects with cohesive identities, but 'as a diffuse set of fluctuating needs, dispositions and drives' (Drott, 2018a: 330). Admirably declaring his intention to bring together critique of political economy and effects on selfhood and subjectivity ('the interlaced psychic and political economies of online streaming', p. 329), Drott criticises the way in which MSPs incorporate music into a consumerist system of matching users with advertisers and their products, by professing their ability to be on the cutting edge of understanding context, activity and mood. But he goes further. Not only can musical desire now be anticipated by collecting and analysing data about the music to which people are listening, so that platforms can offer a personalised service, but also this kind of data can now be used 'to infer what a given user's situation might be, at a given moment in time' (253) by incorporating metadata about settings and contexts into databases, alongside those concerning music and its uses. Streaming platforms, Drott argues, enjoin users to experience 'any time, anywhere' in order to lay the basis for their 'usefulness for consumer surveillance' – hence the striking title of his second article (Drott, 2018b). Streaming platforms sell themselves on the basis of generating 'data that only music can generate', based on special qualities of music that are both extensive and intensive. Extensive, because music accompanies everyday activities, making music valuable because it can follow people into every corner of life, including the bedroom and the shower. Intensive, because music streaming platforms' marketing materials draw attention to the strong affective charge that runs through most people's musical preferences and practices, and also the way it affords 'access to our innermost lives' – 'you are what you listen to' as one of Spotify's advertisements claims. The subject of MSPs turns out to be an object of surveillance.

Like Cheney-Lippold and other writers (e.g. Ruppert, 2011), both Prey and Drott base their analysis of datafication and the recommendation systems built on data by considering how online categories, derived from data and enacted through algorithmic processing, impact 'subject formation', the way that 'personalized media […] enact the individual into being' (Prey, 2018: 1096). I have tried to show that in both cases these talented authors are influenced by conceptualisations that

I am labelling 'subjectification' approaches. Both also shift – perhaps too rapidly? – towards political-economic critique and in Drott's case, towards surveillance critique. In the next section, I suggest that both these moves lack an adequate supporting theory of identity, selfhood and subjectivity, in spite of the authors' explicit or implicit aspirations.

Limitations of subjectification for theorising subjectivity

I have shown how certain critiques of datafication (and of related developments such as platforms and automated recommendation) are founded on theories of subjectification, on how modes of subjectivity suggested or implied in practices of datafication and algorithmic processing (and in the discursive construction of these practices in marketing), in Prey's words, 'enact the individual into being'. Theories of subjectification depend upon an understanding of identity that became popular in certain modes of 'theory' (meaning cultural theory and to some extent social theory) in the post-war period, particularly French theory of the 1960s and 1970s. Particularly influential was the psychoanalysis of Jacques Lacan, which challenged 'traditional' notions of selfhood by drawing on ideas emerging in structuralist theories of language and discourse to emphasise 'misrecognition' as a fundamental part of self-identity (Drott explicitly draws on Lacanian theory in his discussion of the 'lack' produced by streaming platforms).

This kind of psychoanalytical theory was attractive to those seeking to renew or modify Marxist, feminist and anti-racist thought and one influential version of such ideas, often emerging from debates about the work of French theorist Louis Althusser. This revisionist strand of Marxian theory was centred on the idea that power operated by convincing people that their individuality somehow mattered, in a capitalist system where people are in fact highly replaceable and substitutable. An attractive feature of this approach for many writers in the 1970s was that it offered a more subtle account of ideology (and one that emphasised the role of the unconscious) rather than what were considered to be crude theories, based on the idea that doctrines were somehow imposed by the powerful on the powerless. This Althusserian-Lacanian strand of theory influenced important cultural theorists such as Stuart Hall, including in his later work on 'questions of cultural identity' (Hall and Du Gay, 1996). It was also embraced by media analysts drawn to 'textual' analysis, who sought to reveal the 'subject positions' implied by novels, films, music and so on – including media and popular culture.[3] While a history of this kind of cultural theory, and the place of identity within it, could fill many books, suffice it to say for our present purposes that the critical work on datafication discussed above very much inherits this interest in the 'implied subject'. Importantly, however, it applies it to technologies (in this context, digital platforms, datafication or automated recommendation in the realm of music) rather than to 'texts'.

The Deleuzean notion of dividuation used by Prey (and to some extent Drott) is akin to the subjectification approach in that it is interested in how identity and subjectivity are shaped by forces beyond them. However, like Michel Foucault, Deleuze tended to be concerned with institutions often considered to be more centrally concerned with control and discipline (prisons, schools, hospitals, work and so on) rather than cultural or technological domains (putting aside Deleuze's problematic work on cinema). Meanwhile, Simondon, as I have already outlined, was a philosopher more interested in questions of taxonomy, in how entities come to be categorised as separate, whether humans or crystals, than in the power or influence of social, cultural or technological forces.

For our present purposes, two important potential problems in understandings of the subject, self and identity derive from these theoretical legacies centred on concepts of subjectification and (in) dividuation, each of which have significant methodological implications for investigating the platformisation and datafication of culture. The first is that methods derived from these conceptions

of subject, self and identity tell us little or nothing about the actual experiences of people. Detecting and analysing implied subjectivities via analysis of texts or technologies can be useful ways to explore some of the forces shaping people's lives. However, different methods would be needed to investigate *what people actually do with data*. Such a claim will be familiar to those seasoned in media audience research, and there is a new strand of critical internet studies work that is more oriented towards the activities and values of users (see Burgess et al., 2022 for just one example), often using notions of 'everyday' or 'ordinary' usage.

We need to observe a potential limitation of these everyday culture approaches. They arguably react against the neglect of experience in rival perspectives by moving too far in a 'subjectivist' direction, implying or even claiming in some cases that investigation of the experience of technological and textual processes can, should or will ultimately trump any account of the forces shaping that experience.[4] I return to this potential problem in section 4 but in spite of this limitation, it seems clear that, when adequately theorised, research that engages with what people actually do can illuminate the complexities with which technologies are embedded in everyday life. My point is that research on datafication of music, and of culture, would benefit from taking seriously the potentially immense gulf between the identification of possible implications or demands made by texts or technologies, and understanding how these injunctions actually play out in the lives and lived experience of individuals.

A second related problem underlying subjectification and (in) dividuation approaches is their lack of an account of, or even in many cases recognition of, human agency and autonomy. This is well put by the feminist social theorist Lois McNay in a valuable book on gender and agency that appears to be almost unknown in media and internet studies. Writing in 2000, McNay wrote that 'recent theoretical work on identity offers only a partial account of agency because it remains within an essentially negative understanding of subject formation', which sees 'subjectification as subjection' (McNay, 2000: 3). McNay does not deny the power of such a 'negative paradigm' for understanding the notion of the sex-gender system but she questions how that paradigm was generalised (in the kinds of post-structuralist social theory I discussed earlier, which seem to serve as strong influences on Prey and Drott, as well as Cheney-Lippold) to 'become an exhaustive explanation of all aspects of subjectivity and agency' (McNay, 2000: 4). Adopting McNay's approach would open up the possibility that a different domain (such as music) might offer different dynamics of subjectivity and agency to those apparent in other areas of human life.

Political economy and surveillance as necessary but insufficient normative foundations for critique of datafication

I sought to show earlier that Drott and Prey, unable to ground political or ethical critique on the notions of identity, subjectivity and selfhood they mobilise, instead turn to alternative foundations in political economy and surveillance. Political economy is not severed from a politics of the self in Prey's perspective. In this account of a commercially driven reification, there is a clear sense of user identities being reduced in some way. But it is not clear what the nature of those identities might be, and what harm might be associated with that reduction, partly because the concept of individuation avoids any theorisation of the self beyond the idea that it is always in a state of becoming. Yet it seems that Prey's instincts are that there must be a real self (not just a set of becomings) being worked upon, because he remarks that the processes by which those categorised images of the self are reflected back to users remain 'hidden from the view of the subject', meaning in this instance the actual person rather than the implied subject in the technology. Prey does acknowledge that the self is socially and interactively constructed – in part through personalised content. But critical accounts

of music datafication (and platformisation etc.) that seek to build on Prey's compelling article may require a more thorough theorisation of the self that is reduced or diminished by such capitalist processes in order to provide a stronger normative foundation for critique of datafication. This will surely need to acknowledge some kind of dialectic of constraint and agency in how users respond to the categorised images of the self that are reflected back to them.

We have seen that political economy is also central to Drott's critique and that he professes to analyse both the 'psychic and political economies of streaming' (2018a: 329) – though he tends to refer to the 'monetization' of user data rather than any particular conception of capitalism. Ultimately, however, as indicated in my earlier summary, the moral force of Drott's perspective in his second article depends upon the idea of surveillance highlighted in its title, 'music as a technology of surveillance' (Drott, 2018b). Yet Drott seems to substitute a detailed discussion of the systems by which music-related data are collected by streaming services for explicit and sustained conceptualisation of the surveillance idea. When Drott does address a concrete example of a particular technology involved in such surveillance, an effort by some computer scientists to use contextual data to improve music recommendations by using tags and playlist titles, he has to admit that such technologies have 'modest' monitoring aims, but remarks that 'it is not difficult to envisage extensions of this approach that would treat music as just another sensor by which various "extra-musical" determinants of music consumption are registered' (Drott, 2018b: 254). The argument here, then, seems to depend on 'function creep', a concern about potential future uses of the technology, and even here the problem appears to be more about a potential reduction of music to just a source of information, rather than of entertainment, aesthetic enlivenment etc.

The problem here is not the surveillance concept per se but the lack of conceptualisation of it. As Couldry and Mejias (2019: 155) point out, data-driven tracking is quite different from common images of surveillance as involving 'a person, generally representing the state, watching or listening in to the full stream of another person's life'. It is generally corporations doing the tracking, and it does not involve human senses, such as viewing or listening, and only over time and aggregation, can a 'picture' emerge upon which action can be taken. Moreover 'the target of surveillance is not the whole person but rather a montage of data doubles that probabilistically identify a real individual' (155). Couldry and Mejias defend the metaphor of surveillance by clarifying that discriminatory actions taken on the basis of such tracking are still targeted at such 'real individuals'. The kinds of discriminatory actions that might bring about such harms have been valuably logged by writers such as Eubanks (2018), who, for example, shows how digital technologies such as automated welfare and housing eligibility systems discourage citizens from claiming public resources that they need; meanwhile automated insurance and educational databases tag poor, working-class and racialised people as 'risky investments and problematic parents' (p. 11).

Such specificities of digital surveillance are not however addressed by Drott, and various problems of normativity or evaluation arise from this lack of conceptualisation. One problem concerns whether the kinds of harms and injustices with which the debates about digital surveillance have been concerned can really be said to arise from the monitoring of people's musical tastes and practices, without resorting to 'function creep' speculation. What uses of information about my liking for neo-soul, jazz, pop and indie should I be concerned about, for example? Admittedly, activists listening to music that reflects their values in lyrics and in statements by musicians might well be the object of digital surveillance. And drill musicians have been prosecuted on the basis that their imaginings of Black urban life supposedly reflect violent tendencies. But these egregious forms of police or criminal justice surveillance are not mentioned by Drott. In the platformised, datafied environment it seems that, according to Drott, *all* music is becoming a technology of surveillance.

A second set of normative problems concerns the fact that any critique of surveillance must presumably entail a call for strong privacy protections, and this cuts against the open-ness which have led many left-libertarian critics to value highly the original visions of the internet based on the free flow of information (even if that vision was also initially embraced by right-wing libertarians). Faced with actual political struggles over policies, we cannot assume that merely claiming that something is surveillance will be sufficient to make the case for enhanced privacy protections; privacy needs to be balanced against the potential advantages offered by an open-ness that many people (across the political spectrum) might have reason to value. Even those most sceptical about digital platforms might recognise the abundance and convenience they offer. One way of putting a dilemma for leftist critics regarding such the politics of platforms is as follows. In a just society, would digital platforms be abolished or brought under public ownership to act more like libraries? If the former, would the plan be to return to the sale of CDs? If the latter, would the collection of data to inform algorithmic recommendation be permitted and encouraged? Is the problem of datafication, then, merely a function of who does the collecting and sorting: if private companies are doing it, it's bad, but if it's a future, more emancipatory version of the state, then it's okay? The point is that the normative thin-ness of an account like Drott's makes it difficult to know what kinds of political project might follow from such critique. As legal scholar Julie Cohen (2012) points out, critics of surveillance and defenders of privacy have had difficulty in explaining why the information flows to which they object are harmful. Critique of surveillance in any realm, whether it be music or facial recognition, will need to confront these tensions. Any account seeking to do so would in turn presumably require a theory of the self (or the subject or whatever term we might prefer) that needs to be protected from surveillance. I return to Cohen's efforts to address such questions below.

Theories and methods for approaching subjectivity: agency, experience and normativity

I argued earlier that the theories of the self underpinning many leading critical studies of datafication in general, and at least two of the leading analyses of datafication of music, tend to marginalise questions of *agency* and *experience*. I also indicated that there is a *normativity* problem in those theories and in much of the work that derives from them, in that the limitations of subjectification mean that they provide a poor basis for explaining the harms that datafication and platformisation might bring about, in general, and in specific domains such as music. With necessary brevity, and without pretending that I can provide an adequate account of such harms in these closing remarks, I now indicate some conceptions of the self, explicit or implicit, that might provide a better foundation for critique of datafication and related processes such as platformisation and automated recommendation, with culture and music particularly in mind. I will take each of the italicised concepts in this paragraph in turn.

Agency

As an alternative to what she calls 'the negative paradigm of identity formation' associated with poststructuralism (the key intellectual legacy that I have tried to show lies behind the subjectification and (in)dividuation accounts above), McNay (2000: 2) develops a 'generative paradigm' that gives much greater recognition to agency and associated concepts such as reflexivity.[5] The point is not that the negative paradigm fails utterly to recognise agency, but rather (improvising slightly on McNay) when it does, it tends to see it mainly in acts of resistance, and some modes of poststructuralist-influenced thought then make a move of finding resistance everywhere – a feature of a great deal of

cultural studies theorising of the 1990s and 2000s which we should resist!. McNay also distances herself from accounts that see agency as some kind of fixed tendency of humans. Instead she advocates 'a dialogical understanding of the temporal aspects of subject formation', making possible 'a more nuanced account' of agency and change (in her case applied to concepts of gender), and one which incorporates historical analysis of how capacities for agency are unevenly distributed between different times, and across different groups. In the context of the datafication and plat-formisation of music, this opens up the space for social scientific analysis of how musicians, audiences and intermediaries, from different social groups (depending on class, ethnicity, gender and other dynamics) might exercise uneven forms of agency in relation to different technologies, avoiding the rather undifferentiated and speculative accounts that have prevailed so far, or the opposite danger of merely descriptive, untheorized depictions of action.

Experience

Another relevant point of reference is Tanya Kant (2020)'s important book on digital identity in everyday life, and this helps to address the potential problem that some accounts that emphasise agency and experience may sometimes drift away from critique. Kant accepts that the individual is 'dividualized' by algorithmic personalisation but she insists it is still important to understand how such dividuation is felt and experienced. She writes that we need an understanding of people 'as data' but also as humans living lives beyond algorithmic processing. To complement the former with the latter, Kant draws on scholars such as Cohn (2019) who emphasise the importance of decision-making in everyday life to make the point that 'the autonomous capacities of algorithms create not just convenient "personal relevance" – or indeed feelings of privacy invasion – but also a struggle for autonomy between user and system' (56). She examines, for example, among other case studies, how unwanted Facebook auto-posting undermines people's efforts to articulate their identities online (Kant, 2020: 121–57). In forefronting people's accounts of their values and ex-periences, Kant does not neglect the implicit demands of the 'system' (in her case, the context is social media) – which is what, as we have seen, the concept of subjectification seeks to capture. On the contrary, citing Szulc (2019) and others, she points to how, across digital life, algorithmic personalisation demands conflicting versions of the self to be displayed: versions that express abundance and variability, but also authenticity and consistency. Significantly, though, unlike some authors working on datafication and subjectivity, Kant also refers this point to concrete experience, and in fact a music-related one (although her book as a whole is by no means primarily about music datafication): the way in which one of the users she studied carefully regulated her listening habits on Spotify because of her awareness that her tastes would be displayed on Facebook (the two platforms can easily be made to connect to each other). This speaks to how music is often a domain in which people really care about how their musical taste expresses their identity – but how systemic expectations of display can turn self-expression into self-exposure.

Normativity

Julie Cohen (2012), referred to at the end of section 3, argues that a theory of subjectivity is necessary to mediate between the imperatives of freedom and control she discusses. She pays particular attention to the question that I have raised in this article about how different domains might require different normative criteria. How we evaluate dilemmas of freedom and control might differ between our analysis of data of people's music use and people's medical histories, for example. In relation to questions of privacy and surveillance, one important response to the

difficulty of finding foundations for countering 'surveillance' practices that might apply across different domains has been made by Nissenbaum (2010) and others, who insist on the need to develop contextual criteria for different areas of life and to take into account existing conventions and habits in those different domains. Cohen argues however that even such contextual approaches are lacking, because they hold 'the self constant, thereby ignoring the problem of evolving subjectivity and its relationship to contextual change' (Cohen, 2012: 20) and she seeks to offer a model of subjectivity that would allow analysis to go beyond liberal neutrality on the one hand, or the utilitarian models of market approaches on the other.

Such a model might also challenge the strangely non-experiential, passive self assumed by the post-structuralist-influenced subjectification approaches I have been discussing here. It is based on the capability approach developed by Amartya Sen and Martha Nussbaum (Robeyns, 2017). That approach seeks to centre debates about freedom, equality and justice on opportunities for flourishing, whereby critique might be based on the denial of such opportunities, and arguments for reform on their provision. But Cohen makes further moves, not only arguing as others have that the capability approach has insufficiently engaged with culture, and that culture needs to be taken seriously,[6] but also making a methodological point: that the capability approach be complemented by social science methodologies that allow for understanding 'the cultural and moral interests of situated subjects' (p. 226) and which emphasise everyday practice. Some sociological and cultural studies researchers may feel that this is obvious, but the literature I have been surveying and analysing shows that understanding the everyday practices of situated subjects has not always been a priority for research in the realm of datafication and platformisation. Cohen is pushing for critique that is clear about the normative implications of the positions it advocates, takes seriously the complexity of human subjectivity, and considers the specificities of human experience and agency, rather than assuming uniform and passive practices on the part of users.

Conclusion

I have sought to show, through a detailed unpacking of their arguments and evidence, that key work on the datafication of music depends on notions of subjectivity that sideline experience, autonomy and agency, and that this may entail methodologies that reproduce that marginalisation. I have also argued that, perhaps sensing limitations in their models of subjectivity, two eminent researchers turn for alternative normative grounding to notions of political economy and surveillance that seem to require, and yet lack, models of the subject or person that might be harmed by datafication and platformisation. There is no space in this article to exemplify the kind of scholarly work that might build upon such foundations in the realm of music, applying the theoretical and empirical strengths of writers such as McNay and in the realms of platformisation and datafiction, Cohen and Kant. No doubt my own past and current efforts (Hesmondhalgh, 2013) to apply such perspectives also have limitations. I have highlighted here some significant and neglected contributions to social theory that offer different models of self and subjectivity than those currently prevailing in critical analysis of the implications of platformisation for music 'users'. These and others, I hope, might provide a normatively grounded and empirically rich basis for critique of music platformisation, and perhaps datafication and platformisation more generally.

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Notes

1. Another very rich (though so far less influential) account of subjectification in relation to the digital is Andrejevic (2020).
2. This second article also appears, in revised form, in Drott's recent book on music streaming (Drott, 2024), though references in the earlier article to the 'daunting economic realities' faced by MSPs, which Drott posits as the basis of those platforms' efforts to pursue surveillance, have been removed in the wake of the continuing growth of these platforms.
3. In music studies, two notable efforts to theorise musical subject positions are Schwarz (1997) and Middleton (2006).
4. Some work in phenomenology, such as Markham (2020), while providing original and thought-provoking understandings of everyday digital life, in my view comes close to taking that position.
5. The 'negative paradigm' critiqued by McNay also includes certain kinds of psychoanalytical thought, and this clearly influences Drott's use of Lacan above, but there is no space to address psychoanalysis adequately here, other than to say that there are exist more generative versions of such psychoanalytical theories, ones that more adequately recognise agency.
6. An excellent overview of debates about the capability approach is provided by Robeyns (2017); strikingly, however, it does not mention culture or digital technologies.

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