

Spotify and the democratisation of music

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ABSTRACT

The corporate talk of gushing stages frequently expect a tight connect between their scale-making ambitions on the one hand and the imaginative interface of performers on the other. In none, most musicians perceive that claims of melodic 'democratisation' are profoundly imperfect. The imaginative ambivalence this produces is an understudied column in grant on advanced music stages and suggests that these frameworks can be more inventively constrictive than engaging. Based on ethnographic research among Spotify engineers, record names and artists, this article investigates how music recommendation frameworks gotten to be instilled with a corporate talk of 'scalability' and considers, following Anna Tsing, how this impacts melodic imagination assist down the esteem chain. I argue that the 'creative ambivalence' that these advances deliver ought to be more completely caught on as woven into a complex web of social relations and corporate interface than winning claims of

techno-logical objectivity and 'democratisation' suggest.

Introduction

Our mission is to unlock human creative potential by enabling one million creative artists to make a living from their art and billions of fans to enjoy and be inspired by it. is. We are committed to it, connecting us all around the world in a common culture that democratizes the industry and broadens our horizons. (February 1, 2018, Spotify Co-Founder and CEO Daniel Ek) The global music industry is in a pivotal transition as algorithms and artificial intelligence (AI) technologies evolve rapidly. Spotify's algorithms are already reshaping how music is monetized, but advances in AI are raising broader questions about the role of human creativity itself. A growing number of scientists from all walks of life agree that established and innovative companies such as Apple, Spotify, and Amazon are changing the way these technologies are configured and deployed in a short period of time. I'm here. Tech Startups – Will Transform and

Shape the Musician's Profession in the Decades to Come.² As the first quote shows, the corporate rhetoric is both the music-streaming platform's ambition and the creative power of musicians. It is often assumed that there is a close relationship between ³ From this perspective, corporate interests and creative interests are closely related. In reality, however, this association is much looser and more diffuse than new literature suggests. Most artists admit that the claims of “democratization” by these streaming platforms are deeply flawed, perpetuating the unequal power dynamics of the traditional music industry. Their music is “algorithmically appealing” and “Spotify friendly”. The creative ambivalence this creates is often overlooked in research on recommender systems, suggesting that algorithms may creatively constrain rather than empower.

Method and Approach

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“algorithmically appealing” and “Spotify-friendly”. The creative ambivalence this creates is often overlooked in research on recommender systems, suggesting that algorithms may creatively constrain rather than empower.

Theorising creative ambivalence.

Against the corporate marriage of scalability with musical democratisation, this article suggests that creativity should be more fully understood as woven into a complex web of personal interests and social relations. As we have seen, creative ambivalence constitutes an important strategy when dealing with a system that is fundamentally opaque yet increasingly hegemonic. To recap, creative ambivalence produces different outcomes at different levels of the London music ecosystem:

- (1) For corporations, linking creativity to scalability serves to legitimise their position within a globalised network of power and control.
- (2) For engineers, it institutes a belief that their work benefits the greater good.
- (3) For musicians and labels, its deployment offers potential access to large audiences and financial reward for their labour.

Focusing on creative ambivalence allows us to track the means by which artists and labels respond to the growing dominance of digital streaming platforms. It shows that corporate rhetoric does not need to be believed in order to secure its

effect. Moreover, the assumption that these new digital technologies democratise music obscures the social processes and economic imperatives behind their construction and subsequent use. Instead, creative ambivalence shows that the influence of digital streaming platforms on musicians' lives is at once more fragile and more powerful. Spotify's rhetoric may somewhat cynically link corporate interest with creative interest, but this conveys little of the actual relationship between its technology and the creativity of musicians.

The evidence presented here suggests that the link between scale and creativity does not just exist in the rhetorical sense but also permeates how engineers approach the technology they build. The use of creativity not only as a marketing ploy to attract artists to the platform but also as means to justify scale-making processes points to what the anthropologist Paul Kockelman (2006, p. 78) identifies elsewhere as a shift from the 'material commodity', as it was classically understood by Marx, to what he describes as 'immaterial commodities', such as emotions, beliefs, identities, and so on. In this view, 'non-objects' such as creativity are increasingly marketed by corporations along the same lines, and to the same ends, as material objects. Shanker and Cavanaugh identify this objectification as a key facet in the technologies of global capitalism, representing an 'externalization and materialization of meaning and value' (2012, p. 356).

The music recommendation systems that allow for such global scaling, I suggest, work along similar theoretical lines, although with unintended consequences. Through the computational techniques described above, qualitative individual user behaviour is recorded, quantified and compared against the collective behaviour of other users on the platform. If users respond to the music being suggested in ways that correspond with what the algorithm understands as a 'successful' recommendation (i.e. that it has been played for more than 30 seconds), then this subjective response is reinforced as an objective marker, and the algorithm is 'rewarded' for making a 'good' recommendation. (Indeed, the part of the recommender system responsible for this feedback loop is actually called the 'reward function'.) The more accurate or life-like the recommendation, the more likely it is that users will remain 'trapped' on the platform, thereby increasing Spotify's overall subscriber base (Seaver 2019). As we have seen, record labels then compete for their share of royalties from this subscriber base through rigorous analysis of data provided by these same platforms. The gaming of recommender systems that follows has its own creative impact on new music within these labels, although not necessarily in the democratised way that engineers and executives within Spotify perhaps expect. Musicians (or 'creators' as they are now often called in the tech world) interact

creatively with these platforms in ways specific to their own financial and social interests. This creativity is not necessarily tied to corporate interest in the ways that companies like Spotify would have us believe. As so much of the literature on recommender systems shows, the scale-making effect brought about by these technologies makes digital streaming platforms powerful tools to share and shape musical consumption and production. However, as this article shows, those who use these platforms have complex and creatively ambivalent attitudes towards metrics and the possibilities presented to them by recommendation systems. One could perhaps counterargue that Spotify's access to user data, coupled with its vast catalogues of music, qualify its recommendations as more accurate on both an individual and, increasingly, a global scale, and does so in a way that more human-centred forms of recommendation cannot. Given the increasing prevalence of algorithmic recommendation systems to deliver content, it also seems to be the case that sentimentality around 'the human element' of recommendation is, for the moment at least, of secondary concern to many people. It should also be said that other people whose business it is to recommend music, such as radio DJs and 'tastemakers' more broadly, are not above economic concerns and pressures.

Spotify is on one level a logical progression of this kind of role. It may be a technology company, but it still understands that the strongest form of recommendation is a human one: a friend or respected DJ saying, 'Hey you should listen to this, it's great'.

And yet that is also perhaps the point. The individual approaches and styles of radio DJs and tastemakers present a plurality of competing motivations which have informed musical creativity over the years in myriad ways. Yet it is this plurality that becomes flattened-out when music recommendation is increasingly the business of only a handful of companies, especially those whose business it is to achieve total market domination. A variety of motivations behind recommending music become one. The coupling of music's creative and social values to an economic bottom line has a history of producing uneven means of economic distribution that has given rise to serious questions about the ethics of globalising technologies. It is also at odds with how people might otherwise share and value music

Conclusion.

In many respects, this discussion can be viewed as part of a much broader critique of capitalism and technology that spans the history of recorded music. What, then, has

changed with the rise of music streaming platforms? Reflecting on the increasing mechanisation of factories in the nineteenth-century, Marx suggested that new forms of technology not only increased production and reduced costs (a virtue, incidentally, at the heart of ‘scalable’ startup culture), but were also the ‘means of enslaving, exploiting and impoverishing the labourer’ (1906 [1867]). This dynamic, between mechanical reproduction and labourer, is one that has kept sociologists and anthropologists exercised for many years. Marxian scholars have repeatedly recognised that mechanisation and automation are not simply about increasing profit and productivity, but also carry deeply rooted social effects. As the algorithms of Spotify and YouTube become ever more ‘global’ in their reach, there is now an urgent need to better understand what happens to musical practices and creativity in large and increasingly important parts of the world, such as South America, South Asia and East Asia, that are frequently overlooked by a more Western-centred music industry. Who will be Spotify’s editor as it expands across the globe? How will recommender systems, written in tech-centres like San Francisco, London and Stockholm, shape musical lives in the Global South? At the heart of these questions lie not only complex theoretical issues, but deeper philosophical concerns about how algorithms and AI – such as Facebook’s News Feed, Google Search and Amazon’s

Alexa – are increasingly mediating our social and political lives, shaping our moral and ethical choices in the process. And yet, the questions I hear computer scientists and data engineers put to each other in music technology companies more often appear much simpler: ‘Why do people share music? Why do they do what they do?’ These are, of course, the kinds of questions ethnomusicologists have been exploring for decades; questions we know to be infinitely more complex than they sound. It is incumbent upon us to contribute to these conversations while also educating engineers and corporations on the longer history of globalisation and its impact on local cultures. As we identify the ways in which the algorithms of streaming platforms shape digital music culture, we too must start paying more attention to how they are experienced and understood by musicians and listeners in a much wider range of socio-economic contexts

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References

1. Beer, D. 2013. Popular Culture and New Media: How Social Production Transforms Markets and Freedom (New York, Palgrave Macmillan)
- 2.

3. Benjamin, W. 1936 [2008]. *The Work of Art in the Age of Its Mechanical Reproduction* (London, Penguin)
4. Bennett, A. 2018. 'Conceptualising the relationship between youth, music and DIY careers: a critical overview',
5. *Cultural Sociology*, 12/2, pp. 140–55
6. Braverman, H. 1974. *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century* (New York, Monthly Review Press)
7. Chanan, M. 1995. *Repeated Takes: A Short History of Recording and its Effects on Music* (New York, Verso)
9. Cheney-Lippold, J. 2017. *We Are Data: Algorithms and the Making of Our Digital Selves* (New York, New York University Press)
10. University Press)
11. Cohn, J. 2019. *The Burden of Choice: Recommendations, Subversion, and Algorithmic Culture* (New Brunswick, NJ, Rutgers University Press)
12. Deleuze, G. 1992. 'Postscript on the societies of control', *October* 59, Winter, pp. 3–7
13. Drott, E. 2018a. 'Why the next song matters: streaming, recommendation, scarcity', *Twentieth-Century Music*, 15/3, pp. 325–7
14. Drott, E. 2018b. 'Music as a technology of surveillance', *Journal of the Society of American Music*, 12/3, pp. 233–67
15. Ek, D. 2018. 'Registration statement', *United States Securities and Exchange Commission*, 28 February
16. Eriksson, M., Fleischer, R., Johansson, A., Snickars, P., and Vonderau, P. 2019. *Spotify Teardown: Inside the Black Box of Music Streaming* (Cambridge, MA, MIT Press)
17. Fiebrink, R. 2019. 'Machine learning education for artists, musicians, and other creative practitioners', *ACM Transactions on Computing Education*, 19(4), pp. 1–32
18. Finn, E. 2017. *What Algorithms Want: Imagination in the Age of Computing* (Cambridge, MA, MIT Press)
19. Gal, S. 2015. 'Politics of translation', *Annual Review of Anthropology*, 44, pp. 225–40
20. Gal, S. 2016. 'Scale-making', *Discourse and Dimensions of Social Life*, ed. E. Summerson Carr and M. Lempert (Berkeley, CA, University of California Press)
21. Gillespie, T. 2014. 'The relevance of algorithms', in *Media Technologies: Essays on Communication, Materiality, and Society*, ed. T. Gillespie, P.J. Boczkowski and K.A. Foot (Cambridge, MA, MIT Press)
22. Goldberg, D., Nichols, D., Oki, B., and Terry, D. 1992. 'Using collaborative filtering to weave an information tapestry', *Communications of the ACM*, 35(12), pp. 61–70
23. Gronow, P. 1981. 'The record industry comes to the Orient', *Ethnomusicology*, 25/2, pp. 251–84
24. Hayes, D. 2008. 'Rocker runs content through filter', *Variety*, 21 April
25. Hutter, M., Knoblauch, H., Rammert, W., and Windeler, A. 2015. 'Innovation society today: the reflexive creation of novelty', *Historical Social Research Historische Sozialforschung*, 40/3(153), pp. 30–47
26. International Federation for the Phonograph Industry. 2017. *Global*

- Music Report: Annual State of the Industry.
35. <http://www.ifpi.org>
 36. International Federation for the Phonograph Industry. 2018. Global Music Report: Annual State of the Industry.
 37. <http://www.ifpi.org>.
 38. Jannach, D. 2011. Recommender Systems: An Introduction (Cambridge: Cambridge University Press)
 39. Johnson, C., and Newett, E. 2015. 'From idea to execution: Spotify's Discover Weekly', DataEngConf, New York
 40. City
 41. Katz, M. 2004. Capturing Sound: How Technology Has Changed Music (Berkeley, CA, University of California
 42. Press)
 43. Kitchin, R. 2014. 'Big data, new epistemologies and paradigm shifts', Big Data and Society, 1, pp. 1–12
 44. Kockelman, P. 2006. 'A semiotic ontology of the commodity', Journal of Linguistic Anthropology, 16(1),
 45. pp. 76–102
 46. Kockelman, P. 2013. 'The anthropology of an equation: sieves, spam filters, agentive algorithms, and ontologies
 47. of transformation', HAU: Journal of Ethnographic Theory, 3(3), pp. 33–61
 48. Laing, D. 1990. 'Record sales in the 1980s', Popular Music, 9/2, pp. 235–6
 49. Laing, D. 1997. 'World record sales', Popular Music, 16/3, pp. 311–12
 50. Laing, D. 2012 [2003]. 'Music and the market: the economics of music in the modern world', The Cultural Study
 51. of Music, ed. M. Clayton, T. Herbert and R. Middleton (London, Routledge)
 52. Lash, S. 2002. Critique of Information (Thousand Oaks, CA, Sage)
 53. Lomax, A. 1980. 'Appeal for cultural equity', African Music, 6/1, pp. 22–31
 54. Lupton, M. 2006. 'Buy with a little help from your friends', The Guardian, 5 January
 55. Marx, K. 1906 [1867]. Capital: A Critique of Political Economy (New York, Modern Library)
 56. Mayer-Schönberger, V., and Cukier, K. 2013. Big Data: A Revolution That Will Transform How We Live, Work and
 57. Think (London, John Murray)
 58. McAfee, A., and Brynjolfsson, E. 2017. Machine, Platform, Crowd: Harnessing Our Digital Future (New York,
 59. W.W. Norton)
 60. Negus, K. 1999. Music Genres and Corporate Cultures (London, Routledge)
 61. Newett, E. 2017. Interview in Wired Magazine. <https://www.wired.co.uk/article/tastemakers-spotify-edward->
 62. newett (9 January 2017
 - 63.

