Review

Twentieth-Century Music 21/1, 132–136 © The Author(s), 2024. Published by Cambridge University Press
doi: 10.1017/S147857222400001X

Carol Vernallis, Holly Rogers, Selmin Kara, and Jonathan Leal (eds.), *Cybermedia: Explorations in Science, Sound, and Vision* (New York: Bloomsbury Academic, 2022), ISBN 978-1-50135-704-6 (hb).

Cybermedia: Explorations in Science, Sound, and Vision – edited by Carol Vernallis, Holly Rogers, Selmin Kara, and Jonathan Leal – assembles interviews and analyses from media theorists, analytic philosophers, musicologists, musicians, filmmakers, physicists, and neuroscientists to engage the public with contemporary scientific advances. While these advances range from artificial intelligence to quantum physics to the neuroscience of taste, the editors use the term 'cybermedia' to refer specifically to science's connections to information technologies and popular media (1). With this, the volume's nineteen essays and six interviews focus on common popular media objects of study including director Alex Garland's *Ex Machina* (2014) and *Devs* (2020), the *Black Mirror* episode 'Nosedive' (2016), the HBO series *Westworld* (2016–22), Boots Riley's 2018 film *Sorry to Bother You*, Jonathan Glazer's film *Under the Skin* (2013), Terence Nance's sketch comedy show *Random Acts of Flyness* (2018), and the USA Network series *Mr. Robot* (2015–19). *Cybermedia*'s contributions focus on various aspects of these media objects – from event perception to quantum computing to mental health to race, gender, and political economy – through a range of disciplinary approaches: cognitive psychology appears alongside film music theory, analytic philosophy, colour perception theory, and media studies.

The overall argument, according to editors Leal and Vernallis, is that to understand today's 'cybermediated world', we must discover 'new ways to listen to one another' (3). The editors leave the origins of 'cybermedia' and 'cybermediated' somewhat open-ended. Do these terms relate to cybernetics, the interdisciplinary technology and engineering movement that emerged from the military science of the Second World War? Or do they hail from 1990s-era internet culture, comparable to 'cyberspace' or 'cybersecurity'? One can find tacit support for either interpretation: *Ex Machina* portrays two important developments of cybernetics – robotics and artificial intelligence – whereas *Mr. Robot*'s protagonist is a cybersecurity expert, also known as a hacker. In any case, this terminological ambiguity does not get in the way of the volume's expansive dialogue between science and the humanities. As for 'listening', the editors seem to refer to an ability to speak across disciplines rather than aurality per se, even though several of the book's contributions focus on music or sound. The volume's noted range of methodologies is impressive. For instance, Paul Skokowski's chapter on *Westworld* (found in part four, 'The Digital West') places the protagonist,

https://doi.org/10.1017/S147857222400001X Published online by Cambridge University Press

Dolores, in a series of analytic philosophy thought experiments to speculate on whether the fictional android character might be conscious. In a subsequent contribution, Annabel J. Cohen uses a perceptual model derived from cognitive science to analyse the same show's music. *Cybermedia* buttresses such academic deep dives with accessible interview conversations for the uninitiated.

Such an interdisciplinary approach to media analysis is not entirely novel. In fact, roughly a decade earlier, Vernallis co-edited *The Oxford Handbook of New Audiovisual Aesthetics* (2013, eds. John Richardson, Claudia Gorbman, and Carol Vernallis), which brought together media theorists, musicologists, and film sound theorists to consider new approaches to audiovisual artefacts ranging from YouTube to Hollywood film to video games. While sharing *Cybermedia*'s movement between sight and sound (one *Handbook* contribution is from Michel Chion who popularized the term 'audiovision'), the *Handbook* is less concerned with connections between the humanities and sciences, with the exception of Lawrence Kramer's chapter on classical music and posthumanism. Other, more recently edited volumes share *Cybermedia*'s science, technology, and popular media focus but feature a more thoroughly humanistic approach to analysis. For example, the film *Under the Skin* appears in the 2023 volume *Feminist Posthumanism in Contemporary Science Fiction Films and Media: From* Annihilation *to* High Life *and Beyond* (Bloomsbury, eds. Julia A. Empey and Russell Kilbourn), yet that book more consistently draws from critical theory and continental philosophy than *Cybermedia*. Volumes such as *Feminist Posthumanism* also acknowledge, historiographically, the critical treatment of cybernetics, and its reflection in the posthuman, found in N. Katherine Hayles, Cary Wolfe, and Rosi Braidotti – influential theorists who have also studied popular culture – whereas *Cybermedia*'s participation in this genealogy remains, with a few exceptions, mostly implicit.[1] For all of that, many recent texts draw from the work of scientists and humanists, while few offer contributions by both, and none I can find combine them with explanatory interviews.

Cybermedia is organized into six parts, each consolidating between three and five contributions structured loosely around a scientific, and sometimes science-cultural, theme. One or more of the preceding popular media objects appear in each part, occasionally spilling over into other parts where appropriate. The first part, 'AI and Robotics', brings together three short essays on the limits and possibilities of AI from psychologists, philosophers, and computer scientists – who to varying extents discuss *Ex Machina* – with an interview between *Cybermedia* editors and contributors and that film's director, Garland. The relevance of course is that the film dramatizes fears that AI may one day become conscious and/or escape our control. *Ex Machina* returns in the second part, 'Big Data, Sentience, and the Universe', in the form of a short essay by Murray Shanahan that originally accompanied A24's screenplay publication, and as one of the subjects touched on in an interview with the film's composer

1 Key works of this historiography include: N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999); Cary Wolfe, *What Is Posthumanism?* (Minneapolis, MN: University of Minnesota Press, 2009); Rosi Braidotti, *The Posthuman* (Cambridge: Polity Press, 2013).

https://doi.org/10.1017/S147857222400001X Published online by Cambridge University Press

Ben Salisbury. *Cybermedia*'s emphasis on the sci-fi drama is perhaps not unexpected, as the book's cover features a memorable *Ex Machina* still depicting the actor Alicia Vikander playing the star robot. The 'universe' theme relates to another Garland production, *Devs*, the FX drama series about a quantum computer capable of modelling the universe and predicting its future. Analytic philosopher Charles W. Lowney discusses the show in his essay on neural networks, while Salisbury talks about scoring its music. Themes of big data and sentience, along with artificial life, figure in Steen Ledet Christiansen's intriguing essay on Radiohead's 2003 music video 'Go to Sleep', which uses 3D modelling software to simulate crowd behaviour. Christiansen's chapter stands out for its direct engagement with posthumanism, specifically, via the wonderfully counterintuitive thesis that the video's 3D animation provides a kind of prototype for an 'ontological flattening' between the living and inanimate (91).

Part three, 'The Neuroscience of Affect and Event Perception', includes Dale Chapman's remarkable chapter on *Black Mirror*'s 'Nosedive' episode and an interview between Chapman, Leal, and Vernallis, alongside a short work on the study of comic books. Like other contributions by Marta Figlerowicz, Elizabeth Reich, and Christiansen, Chapman's essay should feel methodologically familiar to media theorists and humanists from a range of disciplines. Its title uses a quotation from the episode – 'A Solid Popularity Arc' – which, along with its subtitle, 'Affective Economies in *Black Mirror*'s "Nosedive"', refers to the rise and fall of its protagonist, Lacie Pound (whose name already connotes a frequently gendered textile and the British currency), and the digital social credit system that amplifies it. Chapman skilfully elucidates the episode's engagement with affective labour and its implications around gender, race, and political economy. Following a discussion of Lacie's affect-laden, hyper-feminized speech (tacitly required to sustain her social credit), for instance, we learn that her tragic descent occurs, in part, as a result of negative encounters with several customer service workers of colour (163). Those familiar with *Black Mirror* will note that the show's critique, far from subterranean, inheres in its on-the-nose images of contemporary technocapitalism that, like 'Nosedive', only slightly exaggerate present reality.[2] Chapman acknowledges this, referring to *Black Mirror* as a 'canary in the coal mine' of neoliberalism (152). Yet the show's creators are also explicit about this political–economic critique, describing the episode's 'world where everybody's socioeconomic standing is dictated by their star-ratings given by other people'.[3] As such, Chapman does not so much as reveal an obscured, marginalized, or even unobvious meaning of 'Nosedive' as he confirms and expounds the episode's own self-understanding.[4] This leaves readers wondering perhaps what an analysis that more fundamentally questions the show's purported premise would look like.

2 One commentator designates 'Nosedive' as 'the episode of *Black Mirror* that is most obviously about the present'. Bryant W. Sculos, 'Screen Savior: How *Black Mirror* Reflects the Present More than the Future', *Class, Race and Corporate Power* 5/1 (2017), 1–7, at 2.

3 Charlie Brooker, Annabel Jones, with Jason Arnopp, *Inside Black Mirror* (London: Ebury Press), 243.

4 Other media scholars have discussed 'Nosedive''s political–economic critique in relation to feminized labour. See Erin Greer, 'Wages for Face-Work: *Black Mirror*'s "Nosedive" and Digital Reproductive Labor', *Camera Obscura* 105 34/3 (2020), 89–115.

https://doi.org/10.1017/S147857222400001X Published online by Cambridge University Press

Chapman is not alone, in *Cybermedia*, in affirming his object's critical claims. Part five, 'Interface, Desire, Collectivity', includes five entries on Nance's *Random Acts of Flyness* and Riley's *Sorry to Bother You*. The composer Eric Lyon hails Nance's popular HBO special as an 'avant-garde' show (318) and, like Reich, reproduces its progressive mantra-cum-slogan, 'shift consciousness'. But if Chapman remains close to his object's core contentions, Reich goes far beyond hers. In her highly theoretical discussion of Nance, Riley, the Jordan Peele film *Get Out* (2017), Black studies, epigenetics, and the sonic implications of W. E. B. Du Bois's veil, she concludes that the 'Black sound-veil has a genetic component' that has produced a 'genetic core "Blackness" that can communicate something essential to other Black people: to be free and to sound the warning to kin' (305). A fascinating if controversial thesis, but hardly one that feels completely substantiated here, even as Reich's dense chapter contains *Cybermedia*'s second-highest page count. To be sure, Reich provides a range of theoretical references for her argument against racial anti-essentialism, including related claims by Fred Moten and Du Bois (289) found in her extensive bibliography in Black studies alongside entries in popular culture and critical theory. But a reader senses that, with the disparity in scale between Reich's claims about race and genetics versus the meanings of popular fiction, her argument needs at least a dedicated monograph to unpack – never mind a willingness to accept what Reich calls a 'Black essentialism' (305). In another variation, the neuroscientist Bevil Conway spends most of his chapter, 'Face Color', brilliantly weaving together science and humanistic thinking in discussing colour perception, while his brief application of it to Nance leaves readers perhaps wanting more.

The final part, 'Productive Neuropathologies', includes two chapters that use theories of mental illness to analyse *Mr. Robot*; two interviews with neuroscientists (one on *Mr. Robot* and dopamine, the other on taste perception); and Figlerowicz's fine essay on Glazer's *Under the Skin* and Lars von Trier's 2013 film *Nymphomaniac*. Like the other parts, this one's quality, claims, and coherence range widely. Also like the other parts, this one largely celebrates its objects of study. One does not need to be a Frankfurt School-styled culture industry critic to feel some amount of discomfort with the volume's scant consternation for these products of powerful media corporations. Of course, it is not that such products cannot effect genuine critiques; they clearly do, as the best contributions to this volume aptly show. But any would-be flaws of these media are virtually nowhere to be found. Similarly missing is a defence of the restriction of *Cybermedia*'s objects to popular forms. What, if anything, allows popular media to speak to today's 'cybermediated world' (3) in ways unavailable to their high-art counterparts? Such a question would seem to be fair game considering the previously compared precedent, *The Oxford Handbook of New Audiovisual Aesthetics*, and its inclusion of objects both high (e.g., in Kramer's treatment of classical music) and low (e.g., Hollywood, video games, popular music). Moreover, the critical capacity of art – again high or low – cuts to the heart, many would agree, of its value to our contemporary world. If the *Cybermedia* editors find this capacity more present in today's culture industry than contemporary art, or art music for that matter, that is a view I would want to see defended explicitly.

https://doi.org/10.1017/S147857222400001X Published online by Cambridge University Press

Cybermedia makes readers wonder, finally, to what extent *is* listening a sufficient model for analysing popular media or, indeed, for creating dialogue between science and the humanities? Listening can all too easily be caricatured as promoting a kind of ahistorical presentism. *Cybermedia*'s hesitation to historicize its key concepts (e.g., where does 'cyber' come from?) does not help to push back on this stereotype of listening as an affirmative openness to the now. At the same time, recent humanities scholarship, from sound studies to music history to continental philosophy, has conversely imbued the concept with a range of apparently magical powers; there is no limit, it seems, to what listening can do.[5] It sometimes feels, in this literature, as though the concept lacks an opposing force or counterpart. What would it mean, then, to use listening's counterpart, even its opposite – indifference, inattention, or refusal perhaps – to analyse cybermedia? Is this volume's preponderance of affirmation a result, to some extent, of listening's supposed lack of negativity? While these questions do not directly animate *Cybermedia*, they feel pertinent to its laudable ambition to bridge contemporary science and the humanities through innovative and productive encounters between a range of disciplines and methodologies.

G. Douglas Barrett
dbarrett@syr.edu

5 For an antidote to these tendencies, see the wonderful Christian Grüny, 'Listen! An Old Idea in a New Guise', *Cultural Critique* (forthcoming).

https://doi.org/10.1017/S147857222400001X Published online by Cambridge University Press