



Review of Douglas Kellner (2021). *Technology and Democracy: Toward a Critical Theory of Digital Technologies, Technopolitics, and Technocapitalism*

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Amy Hanna¹

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Critical Theory Against Technophilia and Technophobia

Historically, any rapid advancement in technology that is concerned with the dissemination of information has been accompanied by social unrest and anxiety about information overload—take the emergence of the printing press, radio, and television for example. The central claim of *Technology and Democracy* (Kellner 2021) is that society needs to respond to the challenges of the technological revolution by rethinking its basic tenets and restructuring key institutions. Rapid advances in technology have radically changed how we spend our time in public spaces of work, political participation, and leisure, not to mention private spaces in the home—amplified by the global COVID-19 pandemic. Joining these discrete social arenas is the communication of information and media and the distribution of disinformation and misinformation as a consequence of the technological revolution; what Kellner (2021) refers to as the information society in his exploration of technology, democracy, politics, and capitalism.

The book consists of ten chapters, each a miniature study that amalgamates Kellner's existing work in this field. Each chapter exemplifies his central claim that to meet the challenges of a new technological society and culture, we must develop a critical theory of technology that does not fall into technological and economic determinism, or manifestations of technophilia and technophobia. These key terms are introduced in Chapter 1 where Kellner (2021) posits technophilic discourses as

✉ Amy Hanna
amy.hanna@qub.ac.uk

¹ Queen's University Belfast, University Road, Belfast BT7 1NN, UK

those that present digital technologies as blanket problem solvers, and technophobic discourses as those that see digital technologies and media as our downfall.

The Many Faces of Technocapitalism

Kellner takes on the challenge of theorising the information society, beginning with metaphors associated with technology. Introducing the information superhighway, Kellner argues that the information society is the dominant ideology of technocapitalism; a term he uses to underline the central role of technology in capitalist production. Dualistic technophilic and technophobic discourses overlook Kellner's emphasis that technology is in fact ambivalent. This underlines the need, he argues, for a theory that can ameliorate the extremes of positive and negative features of technology. Such a theory can generate a more inclusive position that acknowledges how technology can be deployed both as domination and emancipation, whilst also addressing essentialist views that abstract technology from culture, human meaning, and social relations. A critical theory of technology must view technology as central to human life and shaped by social relations in specific economic, political, and cultural contexts. One key example of where technology meets human life and social relations is what Kellner terms infotainment: a merging of information and entertainment. Digital technologies and social media are now technologies of entertainment, communication, and leisure which have restructured labour and leisure.

This merging of information and entertainment demonstrates the mutual space inhabited by digital technology and media, in which the distinction between information and entertainment is obscured. Kellner's term technocapitalism is deployed to address the dearth of theory that locates information and technological revolution in contemporary capitalism, and to highlight the increasingly important role of technology in capitalist production. In Chapter 2, Kellner expands upon the information superhighway mentioned in Chapter 1, and how this relates to the infotainment society, going so far as to say that the information superhighway is the dominant ideology of the technocapitalist project. Technocapitalist corporations, Kellner (2021) claims, are both a source of profit and of social power which manifests itself in the proliferation of information, and dissemination of this information through social media and communication technologies.

Information, Technology, and Critical Theory

Kellner (2021) explores these information themes through a number of metaphors associated with technology, and particularly the Internet, including nature (surfing), travel (cruising, information superhighway), book culture (browsing), and military (cyberattacks). Chapter 2 concludes that many metaphors naturalise technology and present it in friendly terms: technophilia. On the other hand, metaphors that centre on military or animal metaphors (e.g. 'bugs' and 'viruses') are the preserve of technophobic discourses. These uses of metaphors therefore illuminate a contested

terrain that demonstrates the need for critical social theory of technological revolution and capitalism.

Chapter 3 further explores the dualism of technophilia and technophobia, outlining existing conceptualisations of technology as essentialist or instrumentalist, and asserting that a critical theory of technology must regard technology as socially constructed and imbued with social bias and values. Such a critical theory must conceptualise the centrality of technology in existing theories. Kellner (2021) restates his argument that we need fresh theories to analyse the epochal changes to society heralded by digital and information technology and social media.

Chapter 4 considers how the explosion in information sources (what Kellner refers to as the infodemic) in the twenty-first century meets the demands of democracy using the term technopolitics. Technopolitics is the use of digital and alternative media for political campaigning and government, demonstrated by Kellner with a discussion of Barack Obama and Donald Trump's respective use of media in their political campaigns and presidencies. Whilst technology has enabled a wider range of voices, interests, and social groups to participate in politics, the ensuing proliferation of information sources has presented a unique challenge in the form of disinformation, propaganda, and lies (Mackenzie et al. 2021 is particularly good on this front).

Kellner examines how the strategic deployment of lies and deception has produced a tribal culture where, for example, conservatives get their information from certain sources, and liberal progressives from another; we seek out media that will present information that articulates our views. One of the challenges of the infodemic is therefore controlling disinformation and tackling misinformation. Unfortunately, in the technocapitalist context in which information has proliferated, the demand for infotainment has generated a profit driven sensationalist media that competes for ratings and advertising instead of an informed electorate with democratic access to information.

Public Intellectuals and New Forms of (Military) Conflict

The role of public intellectuals in the new spheres of public debate created by digital technology is addressed in Chapter 5. Kellner argues that significant expansion of the public sphere for information requires a reimagination of the intellectual as an instrument for turning new technological forces into democratic tools. Democracy, however, building upon Chapter 4, requires informed citizens with access to information and therefore is contingent upon the ability of citizens to access and appraise information and to engage in public discourse.

Kellner (2021) expands upon this core claim using short studies of the Arab Uprising in 2011, the Occupy Movement, and other activist movements such as #NeverAgain, #MeToo, and #BlackLivesMatter which used digital technology and social media to combat forms of oppression and fight for social change. Kellner concludes that to empower citizens requires imparting knowledge of digital technology and how to use media to produce and disseminate messages for political mobilisation and social justice; interventions for technopolitics that have hitherto been

neglected and which pose new roles and functions for intellectuals. This exploration of technopolitics is continued in Chapter 6 in which Kellner raises the themes explored in Chapter 5 to the global, networked world of economics.

Military warfare or infowar is used to spread divisive disinformation, a theme continued in Chapters 7 and 8 which focus on the relevance of digital technology and media to the vicissitudes of war. Kellner (2021) examines how technology has the capacity to produce destruction, and how the explosion of information in the technological revolution requires new modes of deterrence and dissuasion in this context. Chapter 8 continues this thematic probe, developing the infowar introduced in Chapter 2 with reference to Russia's treatment of Hillary Clinton and Donald Trump during the US presidential election in 2016 by hacking and cyberwarfare.

Kellner's claims that cyberwar technologies require a rethink of the nature of military conflict and the emergence of frightening types of technowar that can occur remotely has somewhat chilling relevance in light of Russia's 2022 invasion of Ukraine, especially amid speculation about how much influence the Russian Federation has in UK and US politics. Chapter 9 feels like something of a loose connection in this book, stepping momentarily into the world of science fiction and dystopia—although on second thought, perhaps it reflects the oppressive feeling of today's society in the midst of recovery from a global pandemic, a return of war in Europe, escalating refugee crises, and resurgence of old Cold War tensions.

Towards a Reconstruction of Education

The concluding chapter to this book examines how technology can be used to reconstruct education in light of the rapidly advancing need for digital and media literacy. Whilst the technological revolution and its role in advancing an information society ascribes education a central role, it poses challenges to educators who must reimagine their methods to include digital technologies in creative and productive ways. Such techno-literacies, Kellner argues, are essential for participatory democracy and citizenship. Theorising the reconstruction of education makes us address the digital divide, the participation gap, and the divisions between those who can access information and technology and those who cannot; a more equitable education in this sense must transform class, gender, and racial divides also. Assessment must also be rethought because reading and writing in print media is very different to the literacy skills required to navigate, communicate, and create in digital and multimedia culture.

Education must, therefore, be transformed in two senses: in civics education and in information literacy. Students of the twenty-first century must learn to participate in civic life and politics, activism, and democratic rights to distinguish truth, lies, disinformation, and propaganda. In order to do this, they must also develop critical media literacy that involves accessing and processing the diverse information that proliferates in our infotainment society. Beyond technical knowledge of how to access this myriad of information, education must refine reading and writing skills that include research and communication for critically analysing this material, and

interpreting how this information may harbour forms of domination and inequality that requires reconstruction so that the voices and testimonies of women, LGBT, and racial minorities (amongst others) are heard.

A Critical Theory of Technology

Stylistically, the book can be a dense read in places, with jargonistic and sometimes obscure language making material occasionally difficult to digest. This is often countered with colloquial quips and anecdotes which can present a puzzling experience in navigating the text. There are also a number of themes that are passed over, a more in-depth examination of which may be beneficial. For example, Kellner (2021) refers briefly to the surveillance society, and how technology can pose threats to privacy; he also alludes or refers regularly enough to Facebook and ‘big data’. Yet, on reaching the conclusion, I cannot help but feel that this aspect of technology and technocapitalism deserves a more dedicated space, particularly given the scandal of Cambridge Analytica (of which there is no mention), and the prevalence of algorithms in our techno-society.

Aside from a fleeting reference in Chapter 9 that recognises that these are both effected by, and effecting of, our behaviours, a more in-depth examination might be particularly fruitful with a focus on children and young people who have grown up during the technology revolution. Whilst Kellner touches on where young people get their information and news, and the emerging trend of comedy and satire for information, a more comprehensive exploration of how young people experience and shape the technology revolution to inform a critical theory of technology may have been beneficial, especially considering the chapter on transforming education at the end. In summary, this book is a much needed and valuable addition to the literature on working towards a theory of technology and a provocative starting point for further theorisation.

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