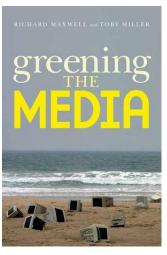
Richard Maxwell and Toby Miller, **Greening the Media**, New York, NY: Oxford University Press, 2012, 246 pp., \$24.95 (paperback).

Reviewed by Garrett M. Broad University of Southern California

Scholars of communication and media have long engaged in debates as to whether new communication technologies are better suited to either promote or constrain individual cultural expression, community health, civic engagement, and broader movements for social change. Virtually absent in all of these discussions, however, has been any consideration of the ecological and material realities that are inherent to the production, dissemination, and disposal of the very products that serve as the focus of media research. Richard Maxwell and Toby Miller's *Greening the Media* might best be described as an intervention in this domain. Through an in-depth exploration of the environmental and worker-safety implications of information communication technologies and



consumer electronics (ICT/CE), the work forces readers to consider issues that have proved too easy for privileged consumers and scholars of media to ignore. As the authors write, "Media technologies generate meaning, but also detritus and disease" (p. 165). *Greening the Media* outlines the intersecting ecological and occupational crises that have emerged in the wake of our ICT/CE revolutions. Importantly, the book also points toward a number of potential solutions— some already in progress, others futurist thought experiments—that might move global society in the direction of sustainable green citizenship in the 21<sup>st</sup> century and beyond. An impressive example of ecologically-oriented interdisciplinary research, *Greening the Media* provides an important and necessary contribution to the communication and media studies fields.

From the start, it is clear that Maxwell and Miller are primarily interested in putting ecological concerns on the radar of scholars from both the humanistic and social science wings of media studies research. They reserve the strongest critique for those they repeatedly refer to as *cybertarians*—that is, scholars who emphasize narratives of heroism among individual ICT/CE inventors, tend toward an unflinching celebration of the value of consumer interactivity with media products, and offer benign accounts of the power dynamics that operate across multiple levels of the media system. The authors aim high as a way to differentiate their interests from those of several leading scholars in the history of the field. They call it the, "irony of exemplary ironies," for instance, that Manuel Castells (1997) did not mention the polluting aspects of ICT in his description of environmental organizations' use of those technologies to advance their goals in the network society (p. 13). They further argue that, despite their namesake, the research approach of McLuhan-inspired media ecologists has actually served to obscure the material ecological context of media technology. Ultimately, the authors suggest that *Greening the Media* forces one to venture "beyond the rather musty corridors of academic labor and media critique; it hauls us into the polluted corridors of material production and death that derive from a risk society" (p. 19).

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In Chapter 1 ("Consumers"), the authors commence with a description of media's contribution to the intersecting ecological crises of climate change, pollution, reduced biodiversity, and disappearing habitat. From there, they outline a spectrum of ethical consumption theories—those that range from entirely human centered, or anthropocentric, to fully eco-centric, that is, concerned with the intrinsic value and rights of nonhuman life. They then explore how these different ethical considerations would influence a consumer's decision making with respect to the purchase of a mobile phone.

Chapter 2 ("Words") is primarily historical in content, as the authors take the reader on a journey from the printed word, to telegraphy and telephony, to the modern e-book. They demonstrate that, whether the process has led to the massive destruction of trees, required substantial amounts of land and water resources, or emitted toxic pollutants into the air, "Each new medium has layered new environmental problems upon the old, with little regard for ecosystems or labor" (p. 43). This history continues into Chapter 3 ("Screens"), which begins with a discussion of corporate Hollywood's significant negative environmental impact and the questionable value of green branding that has proliferated within the ranks of major celebrities and studios. After detailing the ecological impacts that come from the production of screen technologies themselves, the authors offer some extremely guarded optimism that Hollywood is at least beginning to have a conversation about ways it might improve its production practices.

Maxwell and Miller hit their stride in Chapter 4 ("Workers"). It is here that their critique of capitalism's role as a driving force for our current ecological predicament begins to take shape most clearly. They offer a trio of discrete but related case studies starting with Apple and its international supply chain, followed by the resistant *Las Maquiladoras* electronics workers of Mexico, and concluding with a portrait of the 15 million citizens of the Global South who make their living as "ragpickers" in the toxic sludge of the North's e-waste. The authors' grounded analysis demonstrates how global capitalist expansion has altered people's relations to environmental resources, such that "local populations could not readily experience the growing environmental burden of capitalist production occurring in far-flung places" (p. 89). In many ways, the chapter has the ability to stand on its own, as it proves to encapsulate the authors' driving arguments in what is the most engaging prose of the text.

The final two chapters of the book shift toward a focus on the spaces of possibility that exist for sustainable media production and consumption moving forward. Chapter 5 ("Bureaucrats") looks at both governmental and corporate efforts to improve the environmental footprint of the ICT/CE sectors. The attention to mostly mid-level bureaucratic decision making here is a valuable exercise that is well practiced in fields like the social studies of science, but less common in media and communication research. Maxwell and Miller demonstrate that segments of the governmental and business sectors have begun to show a recognition that ecological concerns related to ICT/CE are worthy of their attention. However, the authors remain suspicious of the eco-ethics of those bureaucrats whose actions are still based in a commitment to capitalist profit seeking and depend upon traditional practices of cost-benefit analysis.

Chapter 6 ("Citizens") continues this conversation with an exploration of green citizenship, defined as, "a shared commitment to confront the eco-crisis and press for greener governance through

media policy" (p. 135). This final chapter concludes with one example of a potentially productive green citizen—a hypothetical "accountant of the future." Working in the ICT/CE sector and inspired by an ecoethical concern, this accountant is imagined to develop several new metrics that take into consideration issues like environmental impact and worker safety. This is accomplished by building alliances with a diverse set of like-minded workers, including, "computer scientists, engineers, designers, market researchers, mineral brokers, refiners, chemists, factory laborers, server-warehouse employees, telecommunications workers, truck drivers, salespeople, office clerks, and above- and below-the-line media-production workers" (p. 150). Together, they are conceptualized as helping to establish a new paradigm for ICT/CE and media economies. Indeed, after spending the majority of the book sending toxic fumes in the direction of the guilt-ridden reader, this final call to action from the authors is necessary as a way to keep some pragmatic optimism alive.

Maxwell and Miller suggest in their opening comments that, at the start of their research, "there was no tradition of ecological media history to draw on" (p. 7). As a way to build this foundation, they demonstrate an impressive ability throughout the book to bring together a set of complementary but historically separate research traditions, including media studies, democratic theory, ecology, materials science, the history of technology, supply chain research, and political economy, among others. While an admirable task, this tenuous mix can also be seen as a primary drawback of the manuscript. Because the authors try to cover so much ground in a relatively brief text, readers are likely to feel the need to gloss over certain sections that are too far beyond their area of interest. Media studies researchers, for instance, might find it difficult to work their way through step-by-step accounts of copper mining's toxic legacy while those with a primary interest in supply chain analysis will likely find themselves skimming over discussions of green citizenship.

With that said, it is perhaps appropriate that the experience of reading *Greening the Media* is moderately unpleasant at times. Indeed, the mission of the authors was to push readers outside of their comfort zones and to think critically about important topics that are often overlooked. Maxwell and Miller are extremely successful in this regard, and their work should therefore become required reading for scholars of media technology, environmental communication, and global economic interaction, among other domains. Only with a solid grasp of the material realities of the ICT/CE industry can we hope to build a sustainable and equitable future moving forward. As we proceed through the networked, digital age, this work provides a foundational resource toward those ends.

## References

Castells, M. (1997). The *power of identity: The Information Age: Economy, society, and culture, Volume II.* Cambridge, MA; Oxford, UK: Blackwell Publishing Ltd.