#### **BOOK REVIEW**

# Moral, Ethical, and Social Dilemmas in the Age of Technology: Theories and Practice

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Moral, Ethical, and Social Dilemmas in the Age of Technology: Theories and Practice Rocci Luppicini ©2013 by IGI Global 379 pp. \$175.00 ISBN

We have to realize that science and technology are a double-edged sword. One edge of the sword can cut against poverty, illness, disease and give us more democracies, and democracies never war with other democracies, but the other side of the sword could give us nuclear proliferation, biogerms and even forces of darkness.

We have to be good enough to wield this doubleedged technology.

Michio Kaku

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Kaku's words sum up the key premise of this text. This book highlights the ethical features of technology in society, bringing together research in the areas of Information and Communication Technology, engineering, and biotechnical ethics.

This is a sizeable volume comprised of 21 chapters, organised into four sections. The chapters are articles derived from the International Journal of Technoethics (also edited by Luppicini). As the preface explains, the book's focus is the nexus of technology and humanity. Luppicini's preface serves as an introduction to the field of technoethics, providing a platform for interdisciplinary research about the ethical complexities connected to the application of technology to life, raising awareness of ethical dilemmas that accompany new technologies, and particularly the potential for misuse and the consequent need to establish guidelines for user responsibility. A wide view of technology is apparent, inclusive of tools, weapons and medical technologies. What follows is a short overview of each section and the chapters within.

### SECTION 1: HISTORICAL AND THEORETICAL PERSPECTIVES

Kennedy's piece on virtue and virtuality asserts the need for technoethics to be phenomenologically grounded, as it deals with how we experience a technological environment (a lived perspective). Kennedy argues the need for those who are tech-savvy to also recognise their moral responsibilities. He offers insightful coverage of sticky ethical questions, including the compelling issue of stealing versus sharing in a virtual environment, articulating both sides of the open access and market forces debate.

Cohen-Almagor provides an account of various milestones in the history of the Internet, pinpointing ethical dilemmas along the way. This is followed by a thought-provoking installment by Schulzke regarding property relations in online games, flowing nicely into consideration of cyberactivism (Bertolotti, Bardone & Magnani) – pros and cons of political activism in virtual settings, where increased awareness can be offset by constant activation, and where the ease of sharing via social networks pales in comparison with real-world activism. Finally, in this opening section, Wareham turns to the moral equality of artificial agents, giving consideration to robots with ethical roles and moral status and proposing criteria for evaluating moral worth. Should robots have the same moral rights and responsibilities as humans? This philosophical question takes us to the heart of an ethical tangle and invites the reader to see the world in a different way, setting the tone for ethical debate and for what follows in subsequent sections of the text.

## Section 2: Ethical Dilemmas of Technoselves in a Technosociety

Section 2 continues with a focus on civil liberties, including freedom and privacy. Sayoud leads the section, considering emerging technologies in light of the benefits they afford, and the potential for social and ethical dilemmas they give rise to. Every technology is a doubleedged sword, as security entails surveillance,

and protection can be experienced as oppression. This theme is continued throughout chapters 5-10 as biometrics and profiling pose a challenge for privacy and democracy (Cantore). Mobile surveillance (Stern & Grounds) and cyber-espionage (Lin & Luppicini) serve to illustrate the ethical issues affecting human agents, who are reminded to prioritise social and ethical values when using technology. Non-work related computing or cyberslacking (Strader and colleagues) takes the reader back to a rather more common-place, familiar dilemma alongside the more bizarre trends. However, the final word in this section goes to Reymers with a case study of virtual world conflicts, theorising ethics in Second Life. With the scene set for conflict, the third section of the text takes a violent direction, and is something of an assault on commonsense as well.

#### Section 3: Morality and **Techno-Mediated Violence**

Magnani & Yat-sen extend the concept of violence beyond the physical to encompass wider forms of oppression, advancing a philosophy of violence, of interest to those who make a study of cyberbullying and harassment via language. This theme is picked up later in the section in Bertolotti's exploration of FaceBook gossip and the need for social networkers to be mindful of responsible use. Shelley considers how violence is distributed – fairly or unfairly. At times, this section is strange to read, with challenging language, and examples that are similarly challenging to serious contemplation - e.g., the potential for consumer injury due to clamshell packaging on products, resulting in 'wrap rage'. This section is for the weird and wonderful, entertaining at least, if vaguely ridiculous. The more credible cases are contained in Bardone's chapter about unintended affordances as mediators of violence. Again, the point is that technologies that solve problems can also generate new problems – e.g., texting while driving.

## Section 4: Current Trends and **Applications in Technoethics**

The final section of the text indicates possible ways of thinking about technology ethics and advancing the cause - via tertiary education, pedagogy and research endeavours. Luppicini considers the neglect of ethics across Science and technology degree programmes in Canada, while Reiss and Cintrón discuss breaches of copyright by US college students. Fritzsche examines the relationship between technology ethics and pedagogy, but in a less practical manner than might be expected. The argument essentially seems to be that cultivating ethical use of technology is a lot like educating children. Belfrage looks at situations in research (involving technology) where it is not possible/ feasible to obtain informed consent from participants, and how their rights might otherwise be safeguarded. Finally, Marshall looks at the ethics around the storage of nuclear waste and how future generations may be burdened by decisions made without their input. In this way, the informed consent theme is continued and rounds out the book.

The text finishes with chapter 21, without an overall conclusion or afterword. This is a shame, as the threads of technoethics could have been productively woven at this stage of the book, into a concluding synthesis of critical directions for research and action. Indeed. some of the preface could be transferred to this end section, and I found myself returning to the preface at this point for a renewed view of the intended shape of the collection.

Chapters can be read in isolation, this is very much a collection to dip into, although there is a satisfying flow to reading the volume right through and the order and placement of the chapters has been carefully considered. At the outset, the book makes a good job of defining and explaining the field of technoethics with meaningful illustration. In the middle, it is necessary to suspend disbelief for a time in order to get through chapters with arguably odd preoccupations. The final section signals future thinking and perspectives from higher education and research implications.

The strengths of this volume lie in the introduction to technoethics provided by the eclectic articles, penned by contributors from a wide variety of academic backgrounds, including philosophy, law, psychology and IT. The text considers social justice, ethics and human rights, in a cybersociological context. The International coverage is promising, albeit without input from Australia, New Zealand or the South Pacific. Nevertheless, European, US, Canadian and Asian authors are represented.

At times the accessibility of the language is variable, with instances of broken English. The third section is a stretch, but overall Luppicini's collection serves to illustrate the ethical complexities of double-edged technology.

In terms of target readership, the collection is likely to appeal to scholars across disciplines engaged with the development and study of technology. In particular, many of the chapters contain sound advice for users of social media, who are cautioned to be mindful of the responsibilities of ethical use. Wareham's chapter could be a basis for engaging students of philosophy in a futuristic ethical debate. The research implications suggested by Belfrage are of relevance to institutional ethics committees. The ethical questions raised and the potential for conflict, violence and breach of civil liberties are of interest to all readers concerned with social justice.