Kim J. Vicente, *The Human Factor: Revolutionizing the Way People Live with Technology* (New York: Routledge, 2004), 351 pp., ISBN 0-415-97064-4 (hbk) $19.01.

Based on my twenty years . . . as a ‘technological anthropologist’, I regret to inform you that the problems posed by technology aren’t restricted to just one or two sectors . . . and most important of all, each of these sectors has a dramatical impact on the quality of life of everyone on the planet. (p. 25)

The book under review is a collection of awareness, justifications and thoughts of the use of technology in everyday life by Kim Vicente. At first glance, this book may turn away our attention from the potential intrinsic worth of information and communication technologies (ICTs). However, the book is much more than that. By challenging our philosophical belief of ICTs, we understand how all our lives are being engineered.

Throughout this book, Kim Vicente suggests that our understanding of ICTs or any technologies we have established, centre on a ‘human—technology gap’, i.e. the lack of consideration of how societal and organizational factors influence the introduction of ICTs which could then result in a disaster. For instance, September 11 terrorists planned their attack to achieve their own political agenda by using an existing complex technology that was exactly tailored to meet their destructive purpose. The social gap between the political human factors and the technology in the service of their own political aims led to incredible human suffering and destruction. At the organizational level, the US Immigration system was not enough to prevent the terrorists from easy entry to the country using student visas, because an appropriate technology for the organization has not been established despite that fact that several of the terrorists were already known enemies of the United States. Through these kinds of formative examples, he makes a convincing argument as to how technologies are so harmful when human beings use them in an inappropriate way.

This book places his flow of thoughts in a row; hence in this review I shall identify the major themes of this book, rather than give a chapter-by-chapter account of the book. Whilst this book refers to many worst-case technological
catastrophes such as September 11, the Chernobyl Disaster or the Challenger Disaster, this book does not dismiss aspects of everyday technology. Rather it focuses on the impact of organizational culture, political agendas and collaborative contexts on the application of technologies. Vicente is a human-factors engineer who strongly argues that:

We know how to design technology that works for people. But what is now becoming clear is that we could apply this knowledge much more widely, we could help solve many persistent social problems of local and global interest and improve the quality of life of everyone on the planet. (p. 3)

By illustrating technologies that are beyond our human capacity to control, Kim Vicente has collected many worst-case scenarios relevant to technological disasters. For instance, he uses the Chernobyl Disaster to demonstrate how sometimes technologies can wreak havoc, and, in particular, how the technologies we all have implicit faith in have made our society less controlled than before. As Chernobyl demonstrated, the result of blind faith in cutting-edge technologies without considering the human–technology gap can result in a catastrophe.

To address how we can understand the use of technology, Vicente identifies that the traditional disciplinary boundaries create a division between the human and technical sciences, so neither the humanistic nor the mechanical views can clearly see the relationship between people and technology. A systems approach to the design of technology is a fundamentally different way of thinking he thus coins the term ‘human-tech’. The concept of human-tech requires us to develop a good understanding of the principles that govern human behaviour from the top level to the bottom level: political, organizational, team, psychological and physical. The objective of the human-tech approach is to design to human nature — to build a harmonious relationship — the solution we develop must respect these five levels of characteristics.

The topmost level in the concept of human-tech is the political. Vicente assumed that there are basic considerations, such as public opinion, social values in each community and cultural norms that must be respected. For instance, in the Prohibition era of the 1920s and 1930s in the US, a law that prohibited the sale or consumption of alcohol was passed in an individualistic culture that valued freedom and had always accepted drinking as a social activity. Needless to say, this was politically impossible because there was a fundamental mismatch between the human needs and the political agenda. At the next organizational level, he takes the Challenger Disaster to show a technical system will not succeed unless sufficient attention is paid to organizational issues, such as how decisions are made in the face of outside
pressures. Lessons of the two cases can be used by technology designers to develop legislative controls or organizational insights.

The book also discusses the meaning and mechanism of collaborative patterns in a broader context. Although a demanding application for the understanding of technology design, it highlights a useful perspective on information and communication systems design for collaborative situations.

When Flight 401 was on its final approach to Miami airport, the pilots found some problems . . . . The only problem was that everybody in the cockpit got into the act at the same time. The captain, first officer and flight engineer all tried to figure out what the problems is; even the autopilot became disengaged. (p. 157)

Taken together, although most of us may not be sure of political, organizational, collaborative issues as ‘Information and Communication Systems Design’ interventions, Vicente emphasizes that technology designers must make more efforts not only to focus on physical and psychological aspects of human beings but also to understand social needs, organizational wants and the collaborative context, thus using a range of disciplines to understand the real use of technology in everyday life.

Although Vicente does not suggest any sensible method to deal with these higher-level issues (i.e. the political, organizational and collaborative context) in the designer’s context, the promising concept of this book is timely and clearly defendable. Hence, an important strength of this book is to draw an insightful understanding of the political, organizational and cultural impact of the emerging properties of the new information and communications technologies. In effect, Vicente implicitly asks the reader to join in thinking about how technologies are interrelated with the everyday life of human beings, in an umbrella scene of information, communication and society.

_Hokyoung Ryu_

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As follows from the title, this book’s main focus is on the impact of computers and the Internet on social interaction and communication, namely: the ways people construct their identities, make relationships and build communities online. The authors are mostly interested in the connection between the forms of communication technologies and patterns of social interaction and interpersonal communication, in particular whether, and how, communication mediated by computer is different from communication which is not; how people adapt their communication to technologies; and how they appropriate the technologies to suit their everyday communication needs. The authors suppose that we can learn more about the nature of human communication when we research how it is affected by technologies; and that we can also learn more about communication technologies when we observe the ways they transform – and are transformed by – human social interaction.

The book is skilfully framed to move readers from declarative to the procedural knowledge (in particular, here the main focus is on getting students to research the Internet with the help of the Internet). The volume consists of four parts, each of which deals with the core academic activity in the area of computer-mediated communication (CMC): basic theory (the nature of CMC), central issues (according to the authors – identity, relationships and communities online), fieldwork (practical application of the knowledge acquired by the students), and focus areas (for the possible independent research). There are clear learning outcomes from each section that enable lecturers to measure effectively the learning taking place. The book is written well from an educational point of view, therefore it can be a good source for both students and teachers: it can be used either as a course book by undergraduate students or as a resource book for graduate students and teachers. An additional plus of this book is its own website where all materials are kept updated: the authors have designed it specifically for its readers.

The main idea of the book is to develop students’ intellectual skills in approaching CMC as a scholarly field. Specifically, the volume offers students a task-based critical exploration of the nature of CMC and the impact of the Internet on social interaction. This edition also encourages students to apply what they learn about CMC theory and issues to a selection of modern research areas in communication and Internet studies, such as: new media developments, instructional communication, organizational communication, visual communication, etc. The authors describe corresponding useful learning and teaching strategies, which focus on a critical awareness of CMC as a powerful force in everyday social interaction.
Therefore for instructors the book also offers strong support in addressing CMC. They can undoubtedly gain from it the new concepts and teaching ideas. And though the authors are offering some frameworks and stimulating suggestions, they are also leaving lots of space for lecturers to make the materials and methods their own. For the further self-development of readers in the area of CMC the book also recommends additional good things to read and places to look at.

Because the authors are mostly interested in social interaction in CMC (specifically – in the terms of identity, relationship and community), the issues and concerns raised in this book are central not only to that area but also to communication more generally. Of course, this book is not the last word on CMC and the Internet: according to the authors, it raises as many questions as it answers, and no single section offers the final word on the subjects it covers. But, by being one of the first course books in the area, this edition, undoubtedly, is a new stage in the gradual process of establishing CMC as a scholarly field. Therefore to all readers, especially those new in the field of CMC, may be recommended to read this book.

*Volodymyr Lysenko*

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Andrew Brown & Niki Davis (eds), *World Yearbook of Education 2004: Digital Technology, Communities & Education* (London and New York: Routledge-Falmer), 336 pp., ISBN 0-41533-493-4 (hbk), £65.00.

*Digital Technology, Communities & Education*, the latest volume of the *World Yearbooks of Education* series, brings together a broad set of varied viewpoints, innovative applications and case examples, and critical far-reaching investigations that scrutinize the revolutionary impact of digital technology on teaching and learning practices around the world. The collection of insightful essays presents individual and community efforts in the use of emerging educational technologies that include video-networking on the web, Internet-based multimedia teaching resources, and networked computer-mediated communication tools such as email and chat rooms. *Digital Technology*
provides analytical perspectives on the impacts of these (and other) digital technology applications and use in educational contexts that fill a missing gap in prior research on technology and education intersections. First, the work offers a consolidated, in-depth and detailed exploration of the educational affects of digital technology that are viewed in terms of both their emancipatory role and in the context of challenges and dangers that their use may perpetuate, while accentuating existing socioeconomic, sociopolitical and sociocultural divides between global constituents of information haves and have-nots. Such an outlook is novel in that it provides a context for realistic and meaningful discussion, reflecting the complexities of modern everyday life in a globally dispersed interconnected world. Second and closely related, the anthology identifies impacts of educational technologies in the larger context of globalization and its consequences. Digital Technology presents the changing face of education as a result of digital technology transformations in the context of such globalizing realities as intercultural experiences and the study of community in cross-cultural and interdisciplinary contexts for empowerment of impacted participants. This gives the reading a contemporary relevance that earlier research on the subject lacks.

Digital Technology is divided into four major parts: Digital transformations (Part I), Learners and teachers (Part II), Intercultural interactions (Part III), and Building communities (Part IV). Essays in Part I identify key characteristics and features associated with digital technology that include semiotic learning, networking and collective intelligence, multimedia dimensions, children’s conceptualization of information and communication technologies, and change brought about by hypertext on literacy and literature discourse. These essays provide a broad (and abstract) philosophical ground for discussion related to the impact of digital technology on education. Part II focuses on a more concrete agenda with essays that explore real contexts of use of digital tools in teaching and learning environments. Examples of study situations include home and school learning, issues in adult education, teaching in a connected world, and a case study on use of Internet-video for teaching. Part III and Part IV directly address impacts of digital technology on educational practices in the context of globalization and its resulting forms of social and cultural relations. Essays in these two sections provide a rich grounding to modern-day (and frequently marginalized) realities since they draw attention in digital education research to issues that have often been overlooked or ignored in previous work in the area. Essay topics tie the construct of digital technology to intercultural experiences and the notion of community and include representation of indigenous cultures in education, online worlds of communication and community of refugee children, the role of local instructors in developing global e-leaning programs, culturally and pedagogically relevant knowledge building in interdisciplinary and cross-cultural networked communities, and global practices associated with
learning communities of empowerment in Canada, Chile and Hungary, amongst others. Essays collected in Digital Technology collectively paint a vibrant picture that brings to life myriad aspects that are important for understanding the complex nature of digital education in the contemporary context. One shortcoming of the work is its primary focus on case studies from Europe and the Americas, with minimal reference to examples from Asia, Africa and the developing world. Digital Technology provides a solid foundation in the broad domain of digital technology as it is applied to developing community and meaningful educational practices that future authors can build upon in new directions of research to address this limitation.

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_Judy Wajcman, TechnoFeminism_ (Cambridge: Polity Press, 2004), ISBN 0-7456-3044-8 (pbk), £13.99.

Judy Wajcman’s work will be familiar to many readers of Information, Communication and Society from her edited collections with Donald MacKenzie (1985, 1999) on the social shaping of technology and her 1991 overview of feminist research on technology in Feminism Confronts Technology. Given the growth in feminist scholarship, TechnoFeminism does not attempt to update this latter work. Instead it aims to provide the reader with a guide to the main strands in feminist writing on technology and to define a distinctive approach to current debates on the consequences of developments in ICTs and biosciences for gendered social relations.
At 130 pages, plus notes, this is a compact book. Its focus is on clearly communicating the main structure of the argument and signalling areas of further reading that would be needed to fill in the details and provide supporting evidence. The strengths of such an approach are the insights it gives into the connections between particular contributions, their sociological roots and their consequences for broader debates. This is very valuable, particularly for students approaching the subject matter from a wide variety of backgrounds. However, readers more familiar with the area might wish for a format that would have allowed for a fuller exploration of more subtle distinctions within approaches and debates.

Running through the book is a critique of the tendency towards determinism in analyses of the effects of technology and of essentialism in terms of gendered characteristics and interests. These are countered by developing an analysis based on the co-production of technology and gender. Wajcman argues that cyberfeminist positions that stress the liberating potential of ICTs give too much weight to the role of technology and overemphasize the distinctiveness of current developments over earlier innovations. A related problem is identified in socialist feminist writing, which conversely saw new technologies as simply embodying male interests and reproducing gendered power structures. While not denying the significance of the distinctive characteristics of specific technologies, she argues that the general tendency to be more optimistic about ICTs owes more to our better understanding of the ways in which technologies are shaped and to developments in feminist politics. In particular, network approaches to understanding technological change have provided a framework for analysing the contributions of a range of actors, far beyond the original (largely male) developers, and the achievements of feminist politics mean that women now have more opportunities to engage in a variety of forms of education, work and social action. Similarly, in relation to essentialism she argues against both the idealized femininity inherent in the eco- and cyberfeminist positions and the overdetermined notions of male and female interests that characterized earlier socialist feminist writing. Here Wajcman makes the clearest break with her earlier work by acknowledging the contribution of poststructuralist accounts of gender, which see interests as formed through social interaction in particular contexts. This is a place where a more detailed discussion of the resolution envisaged between such approaches and the more structural notions of interests (which she clearly wishes to retain in some form) would have been valuable to clarify the extent to which Wajcman intends TechnoFeminism to be seen as distinctive from her earlier socialist feminist approach.

TechnoFeminism will be particularly valuable for feminists seeking to engage with social studies of science and technology and for students of technology wishing to understand feminist concerns and critiques of their work. For those already working at the intersection of these debates it provides a succinct framework within which to locate their approach and understand its wider significance.
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David Buckingham & Sara Bragg, Young People, Sex and the Media: The Facts of Life? (London: Palgrave Macmillan, 2004), ISBN 1-4039-1823-6 (pbk), £16.99.

Remember poring over the problem pages of Just 17 or blushing at a TV kiss when in the presence of your parents? Reporting on a research project undertaken with young people aged between 11 and 17 in two English state schools, Buckingham & Bragg explore the ways in which today’s children and teenagers learn about sex, love and relationships. The authors contextualize media usage in relation to the learning that occurs in schools (formally and informally amongst peers) and in families. The book frames its young participants as active and ethically engaged media consumers, rather than vulnerable innocents or conversely prematurely precocious sexual beings. A diverse range of media texts, including extracts from soap operas, chat shows, children’s programmes and music videos, are used to engage the young participants in debates about sexual content in the media, and about gender and sexual identities in wider society.

The authors’ use of qualitative methods (diaries, interviews, focus groups) opens up a space for young people and their families to talk about the ways in which they negotiate contemporary media. Chapter 3 explores the contexts (family, school, peers, media) in which children learn about sex. Chapter 4 considers media consumption in terms of the performance of gender identities, whilst Chapter 5 considers young people’s views on (images of) near-naked or naked bodies in the media. The implications of a ‘proliferation of discourses’ on sex are explored in Chapters 6 and 7, where young people’s views on ‘confessional’ chat shows and celebrity gossip are considered. The authors then examine the pedagogic possibilities (and pitfalls) of television drama, looking at the ways in
which young viewers seek to ‘blame and explain’ characters’ behaviours in the context of their own moral universes. Finally the context of media consumption (Chapter 8: ‘Family Viewing’ and Chapter 9: ‘Governing the Living Room’) is carefully considered alongside content as it is interpreted and negotiated by different age groups (including parents).

Buckingham & Bragg are sensitive to the power relations involved in research interactions and aware of the dangers of framing young people as ‘naturally’ vulnerable or ‘unnaturally’ knowing. They display respectfulness towards the views and reported experiences of research participants whilst simultaneously critiquing the ‘logic of heterosexuality’ and homophobia that pervades many of the accounts (and indeed much of the media). This approach comes as welcome relief to the shrill and sweeping generalizations about the ‘negative effects’ of sexual content in the media that characterize (often US-based) research.

Theoretically the book engages with the work of Michel Foucault and Nicolas Rose on the production of (self-)knowledge and governance in contemporary society. The authors use illuminating extracts from their empirical material, such as one mother’s expressions of self-doubt about her views on lesbian and gay relationships (pp. 219–221), to explore perhaps novel forms of social (and sexual) regulation, from the certainties of externally imposed moral authority towards an individualized self-governance involving situated ethics. In the concluding chapter Buckingham & Bragg usefully draw out 10 key points for consideration in light of their findings, whilst relating the implications of these points for policy debates (e.g. about industry self-regulation). This book is an excellent example of rigorous and thoughtful qualitative research, undertaken with a sound understanding of the topic’s historical setting and emotional and cultural significance. Such research can challenge the ‘common-sense’ knowledge assertions of moral panics that tend to portray the media as an unnecessary evil in an increasingly danger-fraught consumerist society.

Karenza Moore

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For more than a decade, newspapers have been colonizing a new media market: the Internet. Although some have experimented with diverse ways of using Information and Communication technologies to complement or surpass ink-on-paper-related time and space limitations – such as the unequal competition both TV and radio present in terms of news update frequency and room for content – only the deployment of news through online versions of their core print activities seems to endure and, in a few cases, succeed.

This establishment of an old medium in a new media environment – and the factors mediating that endeavour – is the starting point of Boczkowski’s process dynamics analysis and key to his argument: contrary to most in vogue ideas, online newspapers have emerged from the application of ‘traditional’ news cultures and values to Internet-related features – and not from clean-slate-based technique-centred theories – in a dynamic interdependent process ‘best understood by emphasizing history, locality, and process’ (p. 14).

By presenting an understanding of innovation as a product of the interdependence of Technology and Society, shaped along three axes, Technology, Communication and Organization, Boczkowski’s position draws on both historical and ethnological grounds. First, he goes on a bibliographical records journey that frames media strategies from the 1960s onwards, establishing a leitmotiv for their experiments in the electronic deployment of news to readers. Second, he observes in situ three different North American online newspapers and respective routines, namely in technical (the tools or artefacts used), communicational (editorial conventions and values followed) and organizational (flows and trajectories established in between different sections and departments) terms, as well as addressing their personnel, i.e. the agents within media and their day-to-day operations.

This approach renders technical-only and social-only deterministic analysis equally limited: the very recourse to Lievrouw & Livingstone’s (2002, p. 7) media concept – ‘information and communication technologies and their associated contexts’ – signals not only that no one technology and society is immune to the other, rather they shape each other continuously, but also that the impact of any given technology is best examined through a focus on the processes underlying an evolutionary – not revolutionary – everyday adoption and use, that is, the intertwining of established and ongoing procedures with new challenges.

Even though the empirical subjects scrutinized are from a nation-specific market – that of North America – the book is nevertheless insightful in its purpose since Boczkowski’s strategy can be applied in different settings, from the scholar to the researcher to the novice enthusiast, in any address of media
Gustavo Cardoso and Pedro Pereira Neto

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Jason Whittaker, The Cyberspace Handbook (London and New York: Routledge, 2004), 321 pp., ISBN 0-415-16836-8 (pbk), £16.99.

With the rapid expansion and diversification of information and communication technologies that support electronic media and the growth in the percentage of households that have access to them, there is a need for a comprehensive, concise and up-to-date introduction to the field. While there are plenty of books that provide technical introductions and books that provide more cultural perspectives, the current book is a timely contribution in that it provides both. It offers an introduction to the many uses of the Internet for communication, entertainment and commercial purposes with each application presented in its historical, political and economic context. The contextualization of information and communication technologies and the presentation of basic concepts and applications are the strengths of this book.

The Cyberspace Handbook is organized in four sections. The first section provides a historical, social and political introduction to the place of the Internet in society as a global communication technology with an in-depth
and yet brief discussion of the central conceptualizations of technology and society. The concepts of cyberspace and information society are discussed from different theoretical perspectives. This framework provides a good link to the second part of the book, which focuses more on the technical background associated with using the Internet, discussing central technical concepts required to understand how this technology works. In this section, the chapter on games and entertainment is probably a unique contribution of the book in tracing their history and their cultural significance. The third part deals with the informational aspect of the Internet describing in detail: information searches, online journalism, e-zines and web-blogs. The last part of the book focuses on the main threats to the Internet such as cyber-crime, spam and pornography in the framework of Internet governance and regulation.

I found the book very well organized and written in an accessible manner, making sometimes complicated technical and theoretical concepts easier to understand. In that sense, the book provides a timely introduction to the field of electronic media not only because it reviews and defines technical concepts needed by any student in the field, but also because it provides as far as possible a concise socioeconomic and political background that places the role of electronic information and communication technologies in a social context.

The author’s goal was to write an introductory book directed at students of media studies. I found the book well suited for this aim. It is written in a language that can be understood by students and is structured so that it flows from theme to theme engaging and maintaining the interest of the reader.

However, I found the treatment of two topics somehow superficial. Internet research methods are discussed briefly without an adequate representation of different emerging methodologies. The section on virtual communities lacks a brief discussion on theories of computer-mediated communication that are unique to the communication possibilities in cyberspace.

Despite these limitations, I certainly would recommend the book as required reading in introductory courses in media studies, communication studies and sociology of the Internet.

Gustavo Mesch

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One of the key claims made regarding the ‘information revolution’ is that it has the potential to transform the political realm, providing a space for political communication free from distinctions of class, identity or distance. Rather, new technologies have underpinned the development of a (re)invigorated public sphere, where new social movements can coalesce and challenge previously dominant power structures. Likewise, this new Internet-mediated public sphere will enhance, and indeed encourage, freedom of (political) expression, or ‘free speech’. John Michael Roberts argues that any such claims regarding the public sphere and ‘free speech’ must also recognize the specifically capitalist character of contemporary society; the existence of any public sphere must not be equated with effective ‘free speech’. Roberts’s Marxian reading of the Bakhtin Circle approach to discourse supports his argument that the capitalist aesthetic of ‘free speech’ cannot be divorced from the social conditions of systemic reproduction, but rather is embedded within the contemporary political economy.

However, Roberts is also careful to note that while the public sphere is embedded within capitalist social relations, it is not necessarily coterminous with the realm delimited by the relations between state and civil society. He suggests that there are at least two (possibly connected) public spheres in modern capitalist societies: a proletarian and a bourgeois public sphere. Crucially these realms are not ungoverned but are constituted and maintained by the rule of the capitalist state. In each the ‘right’ to free speech can be enjoyed only within certain designated limits constrained by law. It is this argument that takes up most of the second half of the book, building on an engagement with Habermas, Mill and Kant to lay out the political constraints that must be considered when examining the claims for the possibility of ‘free speech’.

Roberts’s self-avowedly Marxian analysis is conducted at a relatively high level of abstraction, and he admits that this precludes any concrete application in this volume, leaving such analytical deployment to future research. Certainly for those seeking an analysis that establishes the capitalist character of the public sphere and the notion of ‘free speech’ there is much of value here. For readers of this journal, the question of distinct (class informed) public spheres resonates with the ongoing discussion of the digital divide, as well as with suggestions that communication on the Internet is not as free from prior social characterization as early discussions of discussion-group interactions hoped. Although it is left to the reader to think through how these discussions might inform the discussion of actual public spheres, and/or the possibility of free speech, there remains much of use here. Unfortunately, although well articulated, the level of abstraction and the complexity of the debates set out suggest this is not a book for the faint hearted. Certainly for researchers working on free speech and the Internet-mediated
public sphere, this book offers a number of fruitful analytical insights; however, this is wrapped up in a form of discourse that may prove challenging for all but the most motivated readers.

Christopher May

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David Bell, Brian D. Loader, Nicholas Pleace & Douglas Schuler, Routledge Key Guides: Cyberculture – the Key Concepts (London and New York: Routledge-Falmer, 2004), 211 pp., ISBN 0-41524-754-4 (pbk), £12.99.

This book consists of a concise A–Z guide to the terminology and conceptual debates of cyberculture or, more precisely, the impact of digital convergence between the computer, telecommunications and media technologies that have led to electronic networks like the Internet and the World Wide Web (WWW). The book is aimed at a wide audience including not only academic readers close to the scientific areas of informatics, communication studies, sociology, economy or political sciences, but also lay readers interested in a first approach to cyberculture and similar topics. Its clearness and accessibility makes this possible.

Facing a multi-faceted and complex concept such as cyberculture, the authors address it in the form of an easy-to-use list of entries covering its basic technical terms (conventions, protocols and ‘slang’ vocabulary) together with more in-depth debate and analysis of the paradoxical changes that have taken place in many aspects of political, economic, cultural and social life. In particular, they attempt to present the debates from the perspective of the social shaping of technology, which acknowledges that technologies are governed by economic constraints, political structures, cultural beliefs, individual traits and socioeconomic contexts and, therefore, are subject to dispute.
In one example relating to the political sphere, the book presents the various ways that different political agents employ the new media to enhance political participation and raise awareness of the increasing economic domination in an information economy. Drawing on a range of schemes from government initiatives to grassroots approaches to community networking, and to social movements that use the information and communication technologies (ICTs) to network, campaign, recruit, protest and challenge governments, media institutions and corporations, the potential of electronic democracy is examined.

Another example relates to cultural issues in which the authors present the powerful cultural and social imaginary of cyberculture in the reinventions of identities through the experimentation of new roles in anonymous communication environments in cyberspace, or even in the new ways of thinking about the body crystallized in the image of the cyborg. This hybrid of body and machine is thus supposed to overcome the limitations of the biological body by the use of prosthetic enhancements or immersion in cyberspace, a subject scientifically explored in fields of research like Artificial Intelligence or Artificial Life, and aesthetically defined in games, in comics, in science fiction and in movies like Blade Runner, The Matrix or Artificial Intelligence.

In general, as the authors envisaged, this is a concise guide to the different dimensions of cyberculture, presented in an accessible language and with cross-references between entries in a hypertextual style. For clearness it avoids specific debates but offers further references to studies and influential authors, and to Internet sites of institutions, centres or projects relating to each subject. Furthermore, the book represents an excellent synthesis exercise from a balanced perspective according to the authors’ choices of subjects, which encourages the possibility of additions in order to keep up with more debates and new trends in such an ever-changing area as cyberculture.

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