Review: Alfredo M. Ronchi, e-Culture. Cultural Content in the Digital Age, Springer Heidelberg, 2009. By Kim H. Veltman

This is an extremely useful book, richly illustrated with examples, with three sections: cultural content, technological framework and exploitation. It is carefully documented and while focussed on European developments, draws on examples from Australia, Canada, China, Japan and the United States. Not covered in the book are politics, dangers and unexpected developments.

Cultural Content

The background and section one offer a detailed snapshot of developments in digital culture between Al Gore's Information Highway (1994) and the Global Alliance for ICT and Development (2006). Ronchi traces how international bodies (e.g. UNESCO, EU) and governments began establishing frameworks for access to digital media (including born digital media), and digitisation of old media. The concern is not just with scanning and displaying, but also with implications for creativity, e-Society, economics, and problems of the social (and digital) divide.

The historical section (33-70) is a mini-history of communications that highlights key developments especially in the past century. The section on origins of the Internet gives an American version of the story and does not mention that the Internet began in England in 1968, one year before it officially began in the U.S. There is a yet unwritten history of how early European efforts (e.g. Zuse in Berlin, Turing in Bletchley Park) were gradually side-lined and on some occasions deliberately stopped by outside intervention (e.g. the Olivetti personal computer in Naples).

More space would no doubt have allowed the author to explain that visions of universal access to content were well in place by the early 20th century in the form of a global brain (*Gehirn der Welt*, 1907) and the visions of Otlet and Lafontaine for a Mundanaeum. It would also have allowed discussion of debates about inventors and/or dates of key technologies such as printing, radio and television.

Technological Framework

This section (81-221) offers an excellent catalogue of technologies used at the beginning of the 21st century, ranging from data sets and data visualisation, to computer games, data tags, ambient intelligence and digital archives. This hands-on focus means that the book will remain an invaluable record of turn of the century practices. From 1990 to 2010, the Internet, which had about 1 million users, grew into a World Wide Web with 2 billion users. The early 20th century visions are becoming early 21st century realities.

Exploitation, Applications and Services

The third section (237-436), gives an informative survey of major applications and services, including intellectual property rights (IPR), museum networks, interactive museums, games, cultural tourism, and the educational market. This is a rapidly changing field with new

success stories of access to knowledge and information. OpenArchive.org is an excellent example of how important texts are being made freely available online.

In the best tradition of scholarly engineers, Professor Ronchi has chosen a fair account that aims at objectivity and balance. He leaves aside politics, and dangers. It would have been useful to draw attention to these dimensions, which deserve to be covered in a future study. Here, we merely outline some challenges.

Political Dimensions

During the 1990s, the rhetoric of the American vision followed the "build it and they will come" idea and assumed that a non-intervention policy was the best way to encourage the telecommunications industry to "make it happen." In some cases, as with the recent spread of 3-D cinemas, industry can introduce innovations without regulatory incentives. Often this has not happened. Accordingly, in Europe, the approach has been slower, more sceptical, with more efforts to integrate efforts of national governments and regional governments in encouraging interoperable standards.

Ronchi cites Marshall McLuhan in pointing out that the media of new technologies affect the messages that they convey. The use of technologies is also affected by different national traditions. For instance, Al Gore's vision of an information highway reflects an American tradition of focussing on metaphors of roads, railways, lines, pipelines, carrying information rather than on the information itself. When Europe hosted the first G7 conference, the organizers insisted on the terms Information Society and Knowledge Society. The United States as a country without a Ministry of Culture approaches these problems differently from countries such as France where the Ministry of Culture is closely linked with national identity. At a deeper level, the US is concerned with getting there, while Europe is more focussed on being there, what one does when one has arrived.

The United States, Europe, and Asia have different visions and different approaches to the Internet. In 1990, when the U.S. represented over 95% of the Internet, the American vision was predominant. In 2012, the U.S. represents 13% of 2.267 billion users world-wide. There are increasing needs for an international approach that represents diverse visions, which are partially being addressed by the World Summit on Information and Communication Technology.

Dangers: Content Ownership

Unexpected dangers are also coming into focus. In October 2003, there was considerable excitement concerning the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities.[1] One of the groups present in Berlin was JSTOR (Journal Storage). The argument was made that many journals, no longer under copyright, often difficult to find, could be digitized and be made readily accessible. The good news is that by 2010, JSTOR has 38 million pages of text accessible by 7,000 institutions in 159 countries.[2] The less good news is that individuals cannot subscribe and have to pay for each article accessed, even they are the author. One of the paradoxical developments has been that Early English Books online

with the full-text of 125,000 literary and historical classics, effectively the whole of English literature between 1475-1700, is owned by Proquest[3] in the United States.

In the past, authors received some royalties from articles and books. Increasingly major publishers expect to acquire all rights for all media in perpetuity with no recompense to authors. Major search engines scan copyrighted books without authors' permissions. The small print of social networks claims that they, not the individual users, own all the content. In the name of protecting rights, some commercial companies are now pushing legislation that would undermine traditional fair use and remove the author's fair compensation.

A counter trend has been for political entities such as the European Union to initiate e-content programmes that are making millions of books available freely. The largest scanning project in the world entailing the full text of 20 million books is now in India. For the past two centuries there has a symbiosis between the commercial interests of publishing books and the social interests of making books available through of libraries and especially public libraries. One of the fundamental open questions is how digital e-culture will affect this symbiosis.

Developments: Mobile Phones and the Digital Divide

One noteworthy development in the past few years deserves mention. Ronchi (1997) was one of the early voices warning against what is now called the Digital Divide. This is changing. According to the ITU, between 2000 and 2010 there was "mobile penetration over 100% in 97 economies," global Internet user penetration reached 30% and there are now 4 billion cell phones in developing countries.[4] It took 100 years to reach 1 billion telephones. Today there are over 1 billion new mobile phones in 1 year, with the majority outside the "developed" world.

Indeed, IBM is predicting an end to the digital divide within 5 years.[5] This is overoptimistic. 30% computer coverage is still a long way from 100%. Even so, the advent of a $35 computer in India,[6] offers an unexpected example of what Ronchi calls digital opportunities. The rise of mobiles and ultra-cheap computers confirm that the limits of the possible are rapidly changing. Ronchi consciously avoids temptations to predict the future. Even so, his precise, detailed and balanced account of technologies, and applications during a crucial decade, provides us with a better understanding of a turning point in new media. As these technologies and applications evolve, the value of this work will increase.

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Notes
[1] Berlin Declaration: http://oa.mpg.de/berlin-prozess/berliner-erklarung/
[2] JSTOR: http://en.wikipedia.org/wiki/JSTOR:
      As of November 2, 2010, the database contained 1,289 journal titles in 20 collections representing 53 disciplines, and 303,294 individual journal issues, totaling over 38 million pages of text.

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[3] Proquest: http://www.proquest.com/en-US/catalogs/databases/detail/eebo.shtml

[4] ITU: http://www.itu.int/net/pressoffice/stats/2011/03/index.aspx#2

[5] IBM: http://edition.cnn.com/2012/01/17/tech/mobile/ibm-digital-divide-gahran/index.html

[6] $35 Computer:

http://www.pcworld.com/businesscenter/article/201769/indias_35_pc_is_the_future_of_computing.html
There are predictions that this will soon decrease to $10 per computer.

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