CREATOR TO CONSUMER
IN A DIGITAL AGE

AUSTRALIAN BOOK
PRODUCTION IN TRANSITION

edited by
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FOREWORD

Our communications environment is being transformed daily before our eyes. At first glance these changes – including the Internet, mobile telephony, interactive multimedia – appear to be primarily technology driven.

This book examines one area of change in the communications environment, and tells another story. Technology is at the heart of the changes, but technology only works in a cultural context and in a business context.

The particular topic this book addresses is change in the book business, and the likely impact of the new technologies for producing e-books (in the form of Internet-accessible electronic files) and d-books (digitally printed books). These changes make little sense, however, without also examining changes in the business context which will make these technologies commercially viable and the cultural context in which they can become useful to people in a human sense.

Based on a research project funded by the Commonwealth Department of Industry, Science and Resources, the book discusses the business, technological and cultural arrangements that are emerging all the way through
the book production supply chain, from the creator to the consumer.

To address these changes in such an expansive way, this research has drawn on expertise from right across the University. In the past, when our University was organised along ‘industrial’ lines, it may have been possible for one arm, such as RMIT Printing, to deal with technology issues more or less in isolation, and that seemed sufficient. Now, we need the kind of interdisciplinary effort upon which this book is based. Although this project is hosted by the Faculty of Art, Design and Communication, RMIT Business and the Faculty of Education, Language and Community Services have brought business and cultural perspectives to the research. The University has also gone beyond its own boundaries, forming an association with Common Ground Publishing, a small, innovative publisher, to pursue these questions about the future of books. The breadth and depth of change in today’s environment is such that this kind of collaborative approach is now essential.

Not only is this book evidence of the ways in which RMIT is now reflecting upon the world of change, but I am pleased to say that it is a sign of the ways in which the University is taking a lead role in this
change—thinking ahead about the technology, the business frameworks in which this technology may work, and the cultural rationales and benefits of change. I commend this thoughtful and thorough book.

Professor Ruth Dunkin
Vice-Chancellor
RMIT University
INTRODUCTION
Chapter One

THE FUTURE OF THE BOOK

FROM THE CREATOR TO THE CONSUMER

Bill Cope

Dante’s decision seven hundred years ago to write his great poem not in Latin but in what he called vulgar eloquence – Italian, the language of his people – and the innovation in the following century of printing from moveable type are landmarks in the secularisation of literacy, and the liberalization of society, as well as an affront to the hegemony of priests and tyrants. The impact of today’s emerging technologies promises to be no less revolutionary, perhaps more so. The technology of the printing press enhanced the value of literacy, encouraged widespread learning, and became the sine qua non of modern civilization. New technologies will have an even greater effect, narrowing the notorious gap between the educated rich and the unlettered poor ... That these technologies have emerged just as the publishing industry has fallen into terminal decrepitude is providential, one might even say miraculous.

Jason Epstein, Book Business, Norton, 2001

Jason Epstein is one of the truly important people of modern publishing (and thus modern reading and so, modern democracy). He’s a man who has helped invent one of the most
revolutionary of modern technologies – the paperback book. Epstein founded the Anchor imprint at Doubleday, and in so doing, brought to a huge number of people for just $1.25 per book, works of literature, works of reflection, works of pleasure. Here is a man who for his whole life has stood faithful to the tradition of Gutenberg.

Writing his recent book about books, Book Business: Publishing Past Present and Future, Epstein stands on the brink of another technological revolution, angered that the world of books which he helped to create has fallen into desuetude, yet surprisingly optimistic about the future of the book (Epstein 2001). The cause for his optimism lies in another wave of technologies, far more significant in his view than the coming of the paperback. In fact, he says that this wave of innovation will be as significant as the revolution that was begun by Gutenberg himself.

The wave of innovation to which Epstein is referring, is not centred on a single technology, but a mix of technologies: print on demand, the Internet and electronic book readers. These technologies are in some respects quite different to each other. They do different things and do them in different ways. But at their heart is a common logic—
the logic of digitisation. And it is this common-logic which can tie these otherwise divergent technologies together into an easier and quicker and cheaper way of making books, thus expanding the market for books, and increasing the cultural impact of books.

This is another book about books, written by a group of thinkers and researchers who are equally committed to the culture of the book, and who are trying in a modest way to imagine, and in part create, the new world to which Epstein is alluding. Unlike Epstein, this particular group has not rubbed shoulders with W.H. Auden or Dr Suess – for Epstein has spent his working life in the towers of cultural influence which dominate the world’s English language publishing in the few blocks around Times Square in New York. And, working in Melbourne, Australia, we are a very long way from the Xerox Laboratories and Apple Computer in California, or the Microsoft complex in Seattle, organisations which have not only invented today’s world, but who, for their trouble, now own a substantial slice of it. We live in a small country with a vulnerable economy, and we have been told that, for the sake of our future, we need to trade more in the ‘new economy’ of technology, information and cul-
ture than the old economy of agriculture, minerals and manufacturing.

We’ve set ourselves the task of thinking about the future of the book, inspired to be sure by the Jason Epsteins and the Steve Jobs, but knowing full well that, at this distant end of the earth we have to think simply and practically. Our task is to consider the ways in which the common platform of digitisation will integrate the new technologies of print, the Internet and electronic book readers into a single workflow – a workflow which is easier to access and cheaper to use than the traditional book production supply chain. It is our view that if the supply chain is considered as a single and continuous platform for producing books from the creator to the consumer, the book will prosper, in new forms as well as old, and as an expression of our multifarious cultures as well as a business where authors, publishers, printers and booksellers can earn a good living.

ABOUT THIS BOOK

'About this book’ usually means that the author wants to tell you what the book is saying and why. That will come next. But, being
practically minded, we’ll tell you first how it was made — that sort of ‘about’.

This book has been made using the prototype of a book production tool we are developing, which we have called the C-2-C System — ‘system’ because it is both a software system and an Internet mediated book production process; and C-2-C because we thought we’d play a linguistic game with the B-2-B and B-2-C ideas which promise to leverage the Internet in order to create supply chain efficiencies for any and every business activity you want to name. The immediate impetus for this development work was some calculated risk taking on our part, a risk which was then rewarded with the support of an ‘R&D Start’ grant which Common Ground has won from AusIndustry.

We are working in this system development as this book goes to press, and we’re making good progress. But the truth we need to confess to immediately is that, although the parts of the C-2-C System are working to produce this book, we’re still doing a bit of walking around with discs and sending each other e-mails to get this book made. The future is not here yet, but we can see it coming soon.

So, this is what we would like to tell you ‘about this book’: it was launched at an In-
dustry Forum organised as part of another project (more on this ‘EPICS’ project below) on 20 March 2001. But it was printed the week before the meeting, using digital print technologies. And it was mostly written the week before that, using authoring templates devised for the C-2-C System. This is not to say the authors didn’t start working on the book’s contents a long time before that – in fact, it represents years of accumulated experience amongst a number of experts, and several months of detailed market research and technology scoping as a part of the EPICS project.

Normally it wouldn’t have been possible to create this text as a book within this time-frame. But now, with these new technologies of the book, it is. These technologies make it possible within this time frame, and affordable for a very short print run. (We printed just enough for the day, so we could update the book afterwards.) So here’s one example of how a new market for books has been created where there wasn’t one before. It is proof to us of the paradoxical point that the new technologies could make books in their traditional form more prevalent by making the processes of their production more accessible.
From the point of view of 'about this text', here are some things that are disarmingly new about the way this book was made. First, it was made in the contemporary equivalent of the typewriter - the authors typed the text into Microsoft Word, and it was from these self-same files that the final text was printed (a reproduction of the Word file having been frozen, page by page, by the postscript PDF process for file transfer to the printer). Once the final text creation process had started, none of the authors met with each other. This enormously complex work of multiple authorship was created in an entirely online environment. The text was then printed using processes which eliminate what were previously whole trades - typesetters, lithographers, platemakers and bookbinders. Even the concept of 'printer' is a misnomer as the actual business of printing is managed from a computer screen. Then, on the day the book was published, it was made available to the whole world through an online bookstore, from the same source file in which the authors wrote, both as an immediately accessible e-Book (a facsimile reproduction of the book that could be downloaded to a computer anywhere in the world, either to be read on screen or printed out), and as a physical d-
Book (digitally printed, and delivered to any address in the world) built from the same source file. In an instant, it became a cultural object which could be found by anyone browsing the Internet and ordered through an online bookstore, either instantaneously as a perfect page-by-page facsimile of the printed book, or, with a few days delay, as the printed book itself.

After the last decade of technological development, none of this comes as a great surprise in a practical sense. But just around the corner are the following possibilities:

- Printing one book at a time at the moment it is ordered, through an online bookstore for direct-to-consumer orders, or through B-2-B ordering processes from a conventional bookstore.
- Immediate and simultaneous mixed-medium publication from a common source file - both as a physical book and as an electronic file - which can be downloaded over the Internet to personal computers or dedicated reading devices.
- Enhanced functionality to printed books, including new copyright relationships in which an individual book number will give access to an updated online edition, fully
searchable, with live hypertext links, and audio and visual annotations.

- Customer-created books: course readers, large print books, books in Braille.

- Multilingual publication: easy creation in any language (because the creation-making process has very simply been designed to work in any language), easy discovery (via multilingual metadata tagging), and easy access (machine translation for rough approximations of meaning, supplemented by online human translation services) so that any book can be published in any language, and every book made readily made available in any language.

- The author gets paid regularly, even as often as every purchase: This means a renewed focus on content rather than the manufactured and technological products, with its high initial investment, large inventories, and high distribution and retailing charges. This means that the main risk taker, and the main beneficiary of any commercial success, will be the author. In the current publishing supply chain authors are both critical, yet in terms of commercial relativities, peripheral to the whole process.

The business, technological and cultural implications of these possibilities are
enormous. The way in which this book has been made provides only a glimpse of these possibilities.

ABOUT THIS BOOK, AGAIN

And now, ‘about this book’ in the usual sense – about what this book is trying to say, how it came about, and what it sets out to do.

This book is the report of a market research and technology scoping project funded under the Infrastructure and Industry Growth Fund (IIGF), Book Production Enhanced Printing Industry Competitiveness Scheme (EPICS) of the Commonwealth Department of Industry, Science and Resources. Initiated by Common Ground, it is a joint project with RMIT University in Melbourne.

Common Ground’s work has consisted of extensive consultation with key players right across the Australian Book Production supply chain, as well as an international literature and web search on current developments in the book publishing and production industry. In the closing months of 2000 and the opening months of 2001, we formally consulted seventy-three key players from across all stages in the Australian book production
supply chain, representing fifty-eight organisations. (A full list of those consulted is to be found as an Appendix to this book.) These consultations covered a broad cross-section of the printing, publishing, bookselling, library and IT sectors. Every attempt was made to canvass the needs and activities of small, medium and large organisations in each sector. Additional research included attendance at several conferences, including the first e-Book World Conference in New York City in November 2000, and the Information Online Conference in Sydney in January 2001. As well as this extensive contact with industry stakeholders and professionals, we conducted a wide ranging program of document collection, fact gathering and web searching around the many issues involved. The results of this work appear in the chapters authored by Bill Cope and Dean Mason.

RMIT’s work consisted of drawing together an extraordinary richness of expertise from right across the University. It is symptomatic of our times that the kinds of issues we are considering here cannot be addressed within a single disciplinary framework. Indeed, using the broadest of brushstrokes, any case for change at this particular stage in human affairs will only work if it is si-
multaneously a business case, a technological case, and a cultural case, and this is reflected in the three section structure of this book. It is also reflected in the disciplines across RMIT from which we have drawn expertise, also grouped very broadly here into business, technological and cultural categories — although in the nature of things these days, and this is also symptomatic of our times, these kinds of foci can never be clearly differentiated.

So here’s what this book is ‘about’ …


The business case for the future of the book is made in Chapters 2 to 4. In Chapter 2, Dean Mason and Bill Cope, from Common Ground, discuss the Australian book production industry in transition, based on the extensive round of industry consultations undertaken as a part of the EPICS project. The chapter discusses the current interests of the key stakeholders at various points in the supply chain, from the creator to the consumer — the issues they are facing today, and their expectations of the immediate future. The industry faces a number of market
and technological challenges, which if met, could lead to an expansion of Australian book production as a world-competitive industry.

Chapter 3, by Paul Mercieca in the Faculty of Business at RMIT, focuses on the current state of play in digital publishing, not just in Australia, but internationally. After defining the digital publication, Paul examines three major publishing trends: online self-publishing; scholarly publishing and commercial and self-archiving; and trends in e-book development, aggregation and delivery. He concludes by examining what constitutes success in this business and publishing environment.

In Chapter 4, Dean Mason suggests that business models do not change quickly, rather progressing in incremental steps through the use of new technologies (for example, Amazon.com’s 1-click ordering). He provides us with a useful checklist of facts that need to be considered when developing a business model for digital publishing, and concludes with three case studies of specialised publishing; a museum, a university press and a small-nation publishing program. All three demonstrate that the C-2-C system could provide some useful solutions.
The next section of the book examines the technology case for change in the ways in which books are produced. There are there key areas of new technological possibility in the way books are produced, and a chapter is devoted to each of these possibilities: the development of new ways of delivering electronic or e-book content; developments in printing technologies, and online possibilities that promise to integrate the whole process.

In Chapter 5, Craig Bellemy, Peter Burrows, Michael Coburn, Daria Loi and Linda Wilkins review factors they believe will lead to the creation of a viable e-text market. They speak of new technologies creating a redefinition of the roles of author and reader. They assess the impact of the development of polymer-based computer devices and electronic ink on size, portability and display quality of e-Text Readers and predict a shift in the fundamental experience of reading and writing towards a new generation of readers, familiar with technologically-mediated text.

Chapter 6, by Bill Cope and Robert Black, provides a snapshot of a print technology in transition, from the old world of the letterpress and offset printing, to the new world of digitisation. From the old world of
mass-production, to the new world of mass-customisation. This paper discusses importance of the Internet as a facilitator and mediator of the new digital processes and the positioning of the C-2-C system as a solution to both supply chain and market inefficiencies.

In Chapter 7, Bill Cope and Stavroula Tsembas comprehensively detail the technological possibilities of C-2-C solutions, looking at the stages of web development, the general principles of access to C-2-C, then providing a modular map of the C-2C environment and a list of anticipated benefits to all stakeholders in the process from creator to consumer.

The last section of the book examines the cultural pressures to change the way book production occurs, as well as the cultural consequences of change. This is not just a matter of how books are produced, but also the nature of the content produced in a book format.

In Chapter 8, Karin Geiselhart gives us a guided history of the book, mapping the factors that have changed our reception of cultural information over the years. She provides an overview of the functions of the book in an increasingly technological world, its need to compete with other media, and
its place within a global society. She hypothesises that the book has become an integral part of the new technology, subject to change within our technological, social and economic contexts.

Terry Laidler, in Chapter 9, goes on to provide a brief history of copyright law, before raising the issues of protection of an author’s work in an age when there may be no physical manifestation (ie physical product) of the work under a law originally designed to protect the physical production networks of the works of creative people. He canvasses government legislative responses, pointing the way forward from new legislative interventions such as the recent Australian ‘Moral Rights Bill’, and discusses the sustainability of this kind of protection in the future.

Chapter 10, by Michael Singh, looks at changes to language brought about by the development of print as a medium of mass communication. He talks of ‘the erosion of linguistic diversity’ and ‘the notion of languages defined by national boundaries’, and conversely, ‘nations defined by their languages’. He looks forward to the multilingualism of cyberspace with some optimism, but warns that we will need a concerted investment from both public sector and indus-
try to produce and use multilingual services, tools and systems, if this optimism is to prove justified.

In Chapter 11, Helen Smith takes as a case study the publishing activities of The National Vocational Education and Training (VET) System. Because the VET system operates in an economy characterised by constant innovation, making all aspects of training management and delivery subject to rapid change, there are many beneficial aspects of the C-2-C system that would enhance current practice.

Finally, in Chapter 12, Bill Cope concludes that the sale of books has not kept pace with growth in the markets for cultural goods generally; that the Internet and new variable print technologies offer hope that we can move forward bringing innovation to the manufacturing and delivery process of book production whilst preserving the cultural significance of the content, and the sensuousness of at least some forms of deliverable format.

THE BOOK NOW, AND ITS NEAR FUTURE

... But then what will you do ... when you have driven so many independent bookstores out of existence with your discount policies favour-
ing the big chains, and there isn’t any shelf space in the mega stores and the mall spaces that you have encouraged to count on a rapid turnover of an insipid inventory of over hyped brand-name commodities in order to amortize their escalating real estate costs, and meanwhile you find that you’ve wildly overpaid millions of dollars in advance of royalties to some disgraced politician or coked-up child molester for a memoir no one will ever want to read even if it actually gets ghostwritten? Here’s what you do. You go to those divisions of your conglomerate that were independent publishers once upon a time themselves before you gobbled them up – those ‘ghostly imprints of by-gone firms’ dating back to when literature, issues, and ideas were the priority instead of ‘sales thresholds,’ before decency and common sense were asked to lick the hand of ‘synergy’ – and you tell them to maximise profit by maximising everything else: cut overhead, trim editorial staff, get rid of the marginal and the midlist, win the lottery.’

John Leonard

Leonard is writing a review of Jason Epstein’s book in a magazine which Epstein founded, the New York Review of Books, and he’s agreeing with him. Here Leonard is adding to the loud complaints which can be heard all the way up and down the book production supply chain. (Leonard 2001)

Authors: It seems to be becoming increasingly more difficult to get your work pub-
lished - and whether this is because publishers are sticking to fewer, low risk, high margin, mass production items, or because there are more titles out there, and more authors are wanting to be published, there is no denying that there are genuine 'push factors' on the supply side. Authors are also angry at the service they get from publishers - how much attention publishers are paying to editing, how much marketing they are doing and how well they distribute the book. And authors are angry about the kinds of royalties publishers pay - rarely above ten per cent, and in many cases, such as academic publishing, nothing or virtually nothing for books sold at often exorbitant prices. For the majority authors, writing a book is simply not a smart business proposition.

**Publishers:** For all publishers, and particularly small publishers, the margins seem to be dropping. Yet the risks are as high as ever - large up front investment in working capital, high distribution costs and retailing margins, as well as the unpredictable element of luck with any title.

**Printers:** Always a highly competitive business, printing is a bad mix of capital intensive as well as labour intensive manufacturing. Now, online file transfer proto-
cols, cheaper and faster transportation and an open import regime make printing a more challenging business than ever. Once a localised business, printers are increasingly being subjected to the rigours of global markets.

**Bookstores:** Today’s bookstores are the most capital intensive of all retail outlets. No other retail outlet would tolerate the amount of stock that is required, nor the average amount of time it sits on the shelf before it is sold. Even then, although the bookstore is a retail outlet which works well for browsers, in all but the very largest bookshops it is a notoriously frustrating place when you are looking for something specific. Even the largest bookstore can only stock a small fraction of all the books in print.

**Readers:** Books seem to be getting dearer all the time, and in many areas of knowledge and culture, dating more quickly. And in a world which seems to be fragmenting into ever more finely-defined subcultures, specialisms, knowledge areas, fad and fetishes, the general bookstore seems is becoming less useful to readers’ interests and needs.

In one sense, this all adds up to bad business. But being bad business also means
that it’s a business that is ripe for change.

It is too easy to say that imminent changes in the book production workflow from the creator to the consumer will solve all these problems. But they will go part of the way, and in so doing, are sure to change the very nature of the business: the kind of work which is done, and even the kinds of entities which do the work.

One term which is regularly used to describe the direction of change in the supply chain is disintermediation: the collapse of one element of the process into another, or the disappearance of one step. Where have the typesetters, the lithographers and the platemakers gone in the digital printing process? The answer is just that they’ve gone, never to return except in museums of industrial history. But it’s not just a matter of collapsing some of the steps in the process; it’s also a matter of creating new kinds of work. An online service provider in a fully integrated online C-2-C system will simultaneously be an e-commerce intermediary, a digital rights manager, a creator of metadata for global resource discovery and so on. Some of the work of a C-2-C provider will deliver improvements in the area of doing things more efficiently. But some of it
also involves doing new things, things that were inconceivable in the old book production supply chain. The product, the industry, the culture will invariably be changed.

These are some of the promises of the world of integrated C-2-C book production.

**Authors**: C-2-C is about content capture, in which the author does a greater proportion of the total work of the book production supply chain, yet does it with very little additional effort. Authors do two main things - first, they typeset the text into fully designed book templates (of which this book is an example). This is not such a large request, as there’s barely an author who doesn’t work on a word processor these days. And second, through a series of online forms, they build all the metadata required for resource discovery on the Internet and automatic insertion of the book into the world of B-2-B e-commerce, so that once it is published, it can be effortlessly ordered by any physical bookstore, and automatically put on sale in online bookstores like Amazon. Of course, publishers and reviewers and referees check and refine this metadata as well as the developing text, from proposal to final publication, but they do all of this online and whilst relating to a single, evolving source file stored on a webserver.
mounted relational database. As the process is increasingly automated, productivity through the supply chain improves. The author becomes the primary risk taker (the largest investment in the whole process is the author’s time), and so, a substantial slice of the rewards of automation will go to them. This is the commercial outcome: the possibility of making writing a better business for authors. But there’s also a cultural outcome: that more people will be able to write – the poet in Melbourne writing in Chinese who knows there’s a small market for her books not just in Melbourne but in Shanghai, Penang and San Diego; the academic educator writing about an obscure aspect of dyslexia, of enormous importance to the several hundred academic experts in this field in the world; the Aboriginal elder who knows that their history of their community will become an important book for the local library and that it will enjoy modest sales at the nearby tourist information bureau; the school teacher who has produced a curriculum unit which they want to distribute to their colleagues and students. Call these niche markets if you like, but to get these works published will also be to create a more healthy democracy, a place of more genuine
cultural pluralism, than can ever be offered by the mass market.

**Publishers:** No prepayment for printing and no inventory - this is a publisher’s dream. If a book sells in the C-2-C environment, all the better. If it doesn’t, all that’s lost from the publisher’s point of view is the time they’ve spent reviewing, commenting and editing the author’s successive drafts of their metadata and their text. Once they’ve pressed the ‘publish’ button, the rest just happens - physical books get printed and dispatched as they are ordered, and electronic books are automatically downloaded by purchasers. What they get back is instant payment, and instant market information. What they are relieved of is the burden of discounting, remaindering and dealing with returns. And so, publishers can stick at what they are good at, their core business. They can focus their energies on finding, refining and placing content, instead of having to spend valuable time and resources managing the back end of an old fashioned mass manufacturing and warehousing business. This is particularly good for small publishers who don’t have the warehousing infrastructure and often pay sixty percent or more of the book’s sale price to outsource distribution. Many more small pub-
lishers may emerge in this environment, as smaller print runs become more economical and the entry point to the industry in terms of working capital is reduced. Museums, community organisations, university research centres and associations of hobbyists can all become publishers. Being close to their content and close to their potential readers, they are more likely to know the culture, the market, and the community that they serve, than any publishing conglomerate. In Epstein’s words, book publishing ‘is by nature a cottage industry, decentralised, improvisational, personal’. It is ‘best performed by small groups of like-minded people, devoted to their craft, jealous of their autonomy.’ (Epstein 2001). This is the old ideal of publishing. The nice irony is that the new technologies and business processes will allow this old ideal to be realised, and far more effectively than was ever the case in the past.

Printers: The new printing technologies are set to transform physical book production, as well as enhance old technologies. As the price of digital printing machines drop (which it is certain to, being built on mass-market laser and Xeroxography technologies), one of the key negatives of the printing business – high capital costs –
will be reduced. It will also be less labour intensive, with just one operator running a machine which does the work of the film stripper, plate maker, printer, offside, folder, collator and binder. With friendly user interfaces, the skills of this book maker will be generic IT, generic process management and generic art/design/communications industry skills learnt increasingly in a Higher Education setting. Specific interface skills will be learned through online tutorials or at short courses in the training room of the machine manufacturer, or be offered by the manufacturer in a university setting. As the number of steps in the supply chain reduces, the printer will take on new roles, including some tasks previously undertaken within the publisher or distributor’s inventory system, such as direct dispatch: B-2-B in the case of online or physical bookstore orders and B-2-C in the case of customer orders. Smart small printers will regain their old location-based competitive advantage, near or even co-located within a bookstore, a library, a university, an airport distribution centre, a publishing organisation, or an online bookstore’s distribution centre. Large printers might set up their businesses as nationally, or even globally, distributed
organisations, with small point of print/point of dispatch/point of sale agencies in Port Moresby and Dili, as well as Hobart and Townsville. Our assumption in this project is that the market for books in the 500 to 3000 copies range – barely serviced at the moment – is at least the same, but probably much larger than the market for conventional 3000 plus print runs. But it will have to be serviced in quite new ways. The end result is that the online world will produce more books, and more printing, and this is good news for the industry. The technological changes will also, paradoxically, fit well and even extend the market for books printed using older technologies – offset can be printed off the same files as digital – as mass production titles which would never have seen the light of day had they not been printed digitally first, surprisingly find a market which justifies long-run offset printing.

**Bookstores:** Amazon.com is but a thin veneer on an old economy; an economy of large inventories, of moving products from printer to distribution warehouse to bookstore dispatch. It’s a business that discounts to compete but which has created no efficiencies in the supply chain. This is why it hasn’t worked as a business, and may never
work. The C-2-C solution is to build a back-end to Amazon, a book production process which creates efficiencies, improves productivity, reduces costs and creates new products for new markets. So, where to, for that old and much loved institution, the bookstore? Will independent bookstores and community bookstores be gobbled up by mass-market behemoths like Amazon? The answer is not necessarily. In fact, we may well see a revival of the convivial, local, community-based bookstore. This bookstore will provide consumers with a very special experience, around local themes, or a cultural niche, or a specialist area of knowledge, or the bookstore owner’s eccentric sense of taste and style. You will visit the bookstore, not because it can ever pretend to be comprehensive, but because you want to enter a space where the bookstore’s selectivity has created a niche. Its range will be thorough for what it sets out to do, but with much less stock than the bookstores of the past. And it will turn this stock over more rapidly. Yet it will also have every book in print for sale, with next day delivery through online B-2-B ordering. And, not too far into the future, the shelves in the corner of the store will be removed, to be replaced by a small coffee shop and a book printing kiosk,
perhaps the size of the photographic development units in chemist shops, or smaller. And by the time you’ve finished your coffee, any book, amongst every book in the world, will be printed.

Readers: The world of reading is also certain to change, and for the better. Some forms of print will disappear. The largest printed item in the average household of a generation ago, the encyclopaedia, has already disappeared. The reason is because, for what it did, it was an expensive and inefficient information technology, easily and quickly replaced by searchable electronic files. Most pages of most encyclopaedias were never read in most households. Most of the shelf space was wasted. A CD-ROM or an online encyclopaedia is just so much more effective, efficient and appropriate a medium for bite-sized information. Speaking at the first e-Book World Conference in New York, Microsoft’s Vice President of Technology Development, Dick Brass, even predicted the end of bulky newspapers like the New York Times, and for similar reasons – most people don’t read most classified advertisements, which are far more easily searched online. Yet, as certainly as the new technologies will reduce the market for certain kinds of print, they will also open up new
markets, and the short-run book is sure to be one of these markets. In fact, rather than eliminate books, the online environment has the potential to make the books a more useful and attractive product. With product numbers extended to individual copies (ISBN plus), readers might be granted an extended copyright licence under which terms, possession of a printed copy (bought from a book-store, lent by a library or borrowed from a friend) allows access to the online version with full search/index functions, access to new editions or postscripts, referencing built on live hypertext, illustrations that move, full colour images where the book can only be economically printed in black and white, and so on. In return for this new book-as-extended information service, the rights of the reader would need to be accurately specified. Too much searching from too many different computers in too short a length of time would indicate that the individual book number was being shared too far from the point of view of the interests of the author and the publisher.

For every agent in today’s supply chain this adds up to a new business case, a new technological and cultural case for the book — a case for doing things differently, and by doing them differently, doing them bet-
ter. Even the business case has a frame of reference which is bigger than bottom lines and financial years, and bigger than supply and demand. It’s also a case about new kinds of text creation, and new forms of production which will create new markets, and at the same time invigorate old cultures and nourish new.

That’s what this book is about.

REFERENCES
