

Book Reviews

Innovation to the Core

Peter Skarzynski and Rowan Gibson

Boston, Harvard Business School Publishing, 2008, xix+295 pp., US\$35.00, ISBN 978-1-4221-0251-0 hbk

Innovation to the Core begins with a clarion call for companies to embrace the imperative of innovation and it ends with recommendations on how to make innovation a sustainable organizational discipline. In-between, it provides techniques, methods and formulae for creating, harnessing and embedding innovation as a core competence of the organization.

The book is subtitled *a blueprint for transforming the way your company innovates* and this, together with an axiological introduction by Gary Hamel, conditioned me to expect a clearly written, pragmatic and instructional volume aimed mainly at business leaders and their managers. Skarzynski and Gibson did not disappoint me. Moreover, the authors' impressive corpora include many articles concerning innovation that have appeared over a number of years in various publications. Importantly, their praxis, as innovation consultant (Skarzynski) and global business strategist (Gibson), is widely known and their client portfolio boasts 'some of the world's largest and most successful organizations' (p. 295).

Early in the book, the authors introduce us to several 'New Innovation Leaders'; these include CEMEX (a Mexican cement manufacturer turned conglomerate), Ikea, GE, Whirlpool, and Proctor and Gamble. Many have been clients of the authors at some time and, because of this, Skarzynski and Gibson are able to proceed beyond the anecdotal to give empirical examples of successful innovation processes and outcomes achieved by these 'New Innovation Leaders'.

All of the foregoing bestows authority and credibility on the book and, in sharing with us their cumulative experience and resulting notions of innovation, the authors have provided a text enriched with innovation know-how as well as being penetrable, practical and congruent with some of the foremost thinking in corporate strategy.¹ Evangelical, prescriptive and almost eponymous in its approach, *Innovation to the Core* will also appeal to those who consult in business and management and who may wish to use the book's tenets to improve products and services for their clients.

Could innovation be a panacea for all business and organizational ills? The authors seem to think so as they place a wide focus on innovation and intend that it should permeate all business functions to hold primacy over every other discipline. Certainly, strong attempts are made to persuade the reader that innovation is the necessary condition sufficient for the avoidance of corporate calamity. However, this is not to intimate that the book relies solely on fear as a motivator of innovation. Indeed, it is Skarzynski's prior article,² written with Gary Hamel, which proposes innovation as a wealth-maker firstly just as several other works have suggested that innovation adopted wholeheartedly as a business discipline will result in higher financial rewards; see Andrew and Sirkin's *Payback* for one recent example.³

Focused in its delivery and energetic in its pace, *Innovation to the Core* comprises five parts. By presenting exemplars of innovation, part one seeks to stimulate organizations into action. Part two focuses on the conditions required for innovation whilst the third part of the book offers strategies and structures through which innovation might form ubiquitously. Part four is grounded in the business realities of risk and return and brings with it the attendant requirement to persuade stakeholders. The final part is a repository of ways in which to measure, evaluate and cement innovation into the organization. Throughout the book, readers will meet new expressions such as 'innovation pipeline' (the arterial highway of the innovation process which must be enhanced and enlarged continuously) along with 'crashing insights' (in a synergistic sense, that different ideas might be compounded, or crashed together, to form even greater innovation). These, along with many others, help the language of innovation practice to evolve.

Inspired in part by the work of W. Edwards Deming, the authors' argument for the organization-wide pursuit of innovation is based mainly on analogy with the quality revolution of recent decades. The authors inform us that quality used to be seen by organizations as a discrete function, a post-process inspection best left to the quality expert. Similarly, the authors cast innovation in artisanal role currently, albeit a pre-process one. Thus, Skarzynski and Gibson urge for the future inclusion of innovation at every level and in every business function in the same way that leading organizations now embrace quality.

In order to challenge and change the accepted organizational wisdom regarding innovation, the book provides us with the four 'Lenses of Innovation'; an organic metaphor born of induction 'if one looks deeply at hundreds of examples of business innovation' (p. 46). These lenses dispel the traditional notion of innovation being contingent on 'personal creativity' and so the authors reveal a new perspective; one of 'assembling the right sorts of insights ... to provoke a business breakthrough' (p. 47) through the holistic contemplation of unarticulated customer needs, possible forthcoming discontinuities, and existing industry and company dogmas. Of course, handled clumsily, such lenses may lead to gallimaufries of mechanistic organizational gaze and to avoid this the reader needs to turn a few more pages in order to find advice which deals with the immediate practicalities required of generating innovation throughout the organization. Here we are encouraged to 'involve many minds ... sow enough seeds' and 'ideate around specific themes', all of which are divergent thinking approaches and seem standard fare in most other innovation tomes of my knowledge. The book then proceeds to the convergent stage; that is, the evaluation of ideas and the construction of 'Innovation Architecture' in order to implement the best ones and whereby we are urged to move past the boundaries set by mission and vision statements in order to empower bottom-up approaches which allow the innovation juices to flow fully.

As you might expect from a book on innovation, we are asked to make several leaps of faith. One such leap is in remaining unperturbed when our innovation-led strategic development process becomes visible to our competitors. This occurs as a consequence of our bottom-up efforts to harness innovation through the use of, amongst other things, intranets and extranets. Unfortunately, these private communications networks are notoriously porous⁴ and the authors' theory that the competitors' paradigms would dismiss our strategic innovation signals would seem supported so long as our competitors are not high innovators too!

In seeking multilateral support for the innovation proposition, the book endeavours to justify innovation beyond the rhetoric of annual reports and the demands of marketing departments. Perhaps in recognizing today's important need to sway diverse stakeholders, 16 pages are devoted to 'derisking' the innovation investment with the authors claiming that most companies overestimate the risks involved with innovation anyway because they have 'ignorance gaps' caused by a 'pure lack of information, evidence or experience' (p. 187). Beyond risk, the book moves on to making innovation a permanent fixture of the organizational process through such devices as the 'Innovation Scorecard' and it is here where the reader finds the keystone: a 'table of innovation metrics' (p. 222). This table comprises of an input-process-output diagram containing both 'soft' and 'hard' requirements of the authors' prescription; a nugget which seems certain to become the consultant's 'single page' overview demanded by top management.

As a manifesto for an innovation revolution, I am unsure how *Innovation to the Core* would stand up to scrutiny by readers who, like myself, might use Danny Miller's celebrated criteria for distinguishing management fads from management classics.⁵ Using Miller's 'properties of fads',⁶ I was able to identify 'simple and straightforward ... the promise of results ... universal application ... in tune with zeitgeist' and 'legitimacy through star examples' as being properties present to some degree in the book. Of course, whilst indicative, the presence of these properties can be no predictor that to develop innovation as a core competence will become either a management fad or a management classic or neither of these. Even so, there is a danger that works which proclaim and predict new business ideas may very well become hostages to fortune. For example, it was with some dismay that I read about the tribulations of GE around the time of writing this review.⁷ Perhaps organizational success through innovation could be more of a continual process (with a few calamities in-between) rather than a continuous one.

At the academic level, researchers who may be seeking a unified or normative theory of innovation might well find the inchoate but numerous substantive theories offered by this book to be inspiration for further, deductive studies. Albeit grounded in empiricism, the authors' work at this level could be described as local, constructivist occurrences and therefore difficult to generalize. Nevertheless, such occurrences may well ring bells of recognition in other areas and so offer opportunities for transfer. Moreover, I feel sure that educational practitioners, whether in further (vocational) or higher education, will find the new concepts and notions on offer here to be helpful in writing courses of work for their students. Indeed, in these days of 'students as customers' whereby the instrumental outcomes of education courses are paramount, this book will certainly be of interest to neophyte management consultants completing their MBA or other business studies course.

As a tertiary educationalist, I intend to add *Innovation to the Core* to my teaching resources for use in lacunal ways by locating it somewhere between Tushman and Anderson's innovation anthologies⁸ and Peter Cook's seminal compendium, *Best*

Practice Creativity.⁹ As a business consultant, *Innovation to the Core* will form part of my ‘managerial toolkit’: vanguard thinking to draw on as I facilitate strategic apices in their efforts to improve organizational results through innovation.

Notes and References

1. See Gerry Johnson *et al.*, *Exploring Corporate Strategy*, 8th edition, Pearson Education, Harlow, 2008, Chapter 9.
2. Gary Hamel and Peter Skarzynski, ‘Innovation: the new route to wealth’, *Journal of Accountancy*, November 2001, pp. 65–8.
3. James P. Andrew and Harold L. Sirkin, *Payback: Reaping the Rewards of Innovation*, Harvard Business School Publishing, Boston, 2007.
4. Kevin Poulsen, ‘Patching up the leaky corporation’, *Business 2.0*, 7, 10, 2006.
5. D. Miller *et al.*, ‘How to detect a management fad—and distinguish it from a classic’, *Business Horizons*, 47, 4, 2004, pp. 7–16.
6. *Ibid.*, p. 11.
7. ‘Immeltdown; as GE stumbles, how should Jeff Immelt respond?’, *The Economist*, 17 April 2008.
8. M. L. Tushman and P. Anderson (eds), *Managing Strategic Innovation and Change: A Collection of Readings*, 2nd edition, Oxford University Press, New York, 2004.
9. P. Cook, *Best Practice Creativity*, Gower, Aldershot, 1998.

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Generation Digital: Politics, Commerce and Childhood in the Age of the Internet

Kathryn C. Montgomery

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This book really needs to be re-titled, *Generation Digital—A View from the USA*. At one level, its US-centric analysis is a missed opportunity for a book that is well-researched and aims to ‘examine the ways in which the new media landscape is changing the nature of childhood and adolescence’. The author seems totally oblivious of the irony of writing about the ‘world wide web’ as though it is neatly tethered to North American border posts. However, at another level this book provides a fascinating insight into the way in which politics, economics and society in the US have shaped the new media world and in so doing created and shaped the way in which children and young people are seen and see themselves. The pervasiveness of American politics and economics in the global market place means that it is as if you have stumbled on a rich, colourful map of an interesting new terrain but the ‘you are here’ arrow doesn’t quite correspond to where you know yourself to be.

The author is an academic, turned social campaigner who has returned to academia. Her campaigning and academic interest in media education combine to produce a detailed analysis of the ways in which the educational and commercial aspects of the new media have become entwined, combined and sometimes

blurred. Chapter 1, 'At the Center of a Cultural Storm', opens with the decision by the Recording Industry Association of America to file lawsuits against hundreds of young people and their families for 'piracy' for downloading songs. She regards the controversy over music file-sharing as 'emblematic of the powerful, complex and sometimes contradictory roles that children and youth play in the era of the Internet'. Her opening text is alive with analogies and metaphors comparing the impact of new media to the exploration of space or the Wild West frontiers. The Digital Generation 'has been at the epicentre of major tectonic shifts that are transforming the media landscape'; they are 'leading the way into the uncharted territory of cyberspace' 'fearlessly' whilst 'the public has responded with a mix of wonder, fear, and perplexity'. These young people are 'pioneers', 'Young Turks of technology', 'folk heroes' and 'youthful outlaws'. As Montgomery highlights, press coverage has swung between celebratory coverage of young 'netpreneurs', exposés of 'the hidden, underground lives of teenage hackers' and concern about the 'dangerous cyberworld that entices and ensnares them'. These new media 'sub-cultures' have been linked to the 1999 massacre at Columbine High School, suicides, young people selling sexual images of themselves and teenage girls flocking to sites that 'promote' bulimia and anorexia as a lifestyle. This sense of harm and danger are, according to Montgomery, in sharp contrast to widespread views about the positive role of technology in children's lives. She argues that these contradictory views echo previous generational debates about the positive and negative effects of film, radio and television. However, there is 'something distinctly different about this new media culture and the role that young people have played, and continue to play, in its development and expansion'. She argues that a powerful combination of technological, social and economic trends has placed children and youth at the centre of digital politics, commerce and culture. One of the driving forces behind these trends is the 'exponential' rise in children's spending power. The book is focused on describing this unfolding story and making recommendations to policy makers, corporations, scholars, and parents that 'will help ensure an open, diverse and equitable digital media system for the future'.

Chapter 2, 'Digital Kids', traces the interest in child consumers as a special group back to the 1930s and charts the rise in importance of specialist marketers studying child consumer preferences and both defining and creating notions of childhood and adolescence. Montgomery credits, for example, the idea that 'children are getting older younger' to market interpretations not supported by academic research. By the 1980s, this specialised marketing sector had grown phenomenally with the introduction in the US of TV channels catering for children followed swiftly by targeted advertising. These developments, according to Montgomery's analysis, were fuelled by societal changes which enabled children to have more say in the buying patterns within their families and changes to family patterns which provided children with direct spending power. Marketers began to pay considerable attention to studying and theorising the younger market. Inevitably this led to segmentation and a search for the key characteristics of different age groups in order to market effectively to them. This trend increased with the advent of the Internet although it was not automatic. It is easy to forget that originally advertising on the Web was forbidden by the laws of 'Netiquette'. By 1995 the Coalition for Advertising Supported Information and Entertainment was formed in the US because of concern that there would be no advertising in cyberspace. By 1999, the landscape was completely different. The dot.com shock had focused corporate minds on gearing their advertising and promotional activities to the Internet.

Company mergers and alliances had supported the integration of TV programmes and Internet sites and enabled companies 'to forge deeper emotional relationships between viewers and TV programs'. The result: 'Digital Generation has become the most heavily researched demographic group in the history of marketing'.

Chapter 3, 'A V-Chip for the Internet', opens with the cover story in *Time*, July 1995 on 'cyberporn' aimed at young children and centres on the political debates about pornography and indecency over the Internet and the struggle between civil libertarians and those wanting intervention and protection. This chapter covers the period in which Montgomery established and ran the Center for Media Education (CME). She describes it as 'a flurry of culture wars (was) beginning to erupt over the role of the media in the lives of children. Interest groups on the right and left were mobilising to fight it out on Capitol Hill, at the White House, and in the courts'. Montgomery regards the resulting legislative battles and the 'public furor over sex, violence and indecency' as deflecting attention away from 'critical policy decisions that would determine the media power structure of the Digital Age'.

The chapter is a remarkable study of how public opinion, political imperatives and corporate interests are shaped by and shape each other. The V-Chip of the title was a legislative provision that all new television sets 13 inches and larger should contain a chip making it easier for parents to block certain TV programmes. As a solution this suited ideas of parental control, electoral advantage and the bargaining being conducted with a powerful media industry concerned both by profitability and public ratings. However, as Montgomery details, its implementation was fraught with difficulties and drew attention away from issues of new media power increasingly concentrated in fewer hands. From a European and particularly UK perspective it is a distinctly American piece of recent history and yet the underlying trends and concerns reverberate in this part of the world.

Chapter 4, 'Web of Deception', explicitly links the very American take on these concerns to the wider international 'battle' for consumer protection in the global market and the European Directive on the Protection of Personal Data and on the Free Movement of Such Data in particular. The chapter is a case study of the campaign by CME to get the Federal Trade Commission (FTC) to establish some 'rules for the road' for conducting business with children and later to introduce legislation to protect the privacy of children and young people. The 'Web of Deception' is the title of the CME's report into the use that sites such as KidsCom made of games, surveys, electronic cookies and free gifts to elicit personal data about the consumer preferences of children and their families. As with the previous chapter it is a veritable tour de force of the way in which the American political and economic systems influence each other and how campaigners use these influences to lobby for change. Whilst the case study does include the economic and political relationship between the US and the EU, the centre of gravity of the analysis stays resolutely within the US.

Chapter 5, 'Born to be Wired', shifts direction from politics and considers how the structure of the new digital media suits teenagers, their desire for peer-to-peer communication, to find out about the world and their search for identity. Montgomery regards them as the 'key defining users' of the new digital media. She states that companies and marketers took advantage of this to sell to teenagers 'under the radar of parents and policy makers' and, through the development of viral marketing campaigns, got teenagers to promote their products to each other. This chapter is very detailed. Montgomery is seeking to demonstrate that digital marketers have developed sophisticated new market-research and profiling strategies that have become 'a pervasive and powerful presence in the lives of

adolescents'. She very ably demonstrates that the new media suit the teenage desire both to forge an individual identity and to be part of a crowd, to experiment, challenge and be provocative. She also pounds home the point with numerous examples that this is taken advantage of for commercial gain. But has this changed the nature of childhood and adolescence?

Chapter 6, 'Social Marketing in the New Millennium', then considers three examples of how public education programmes have used some of the same tactics as corporate marketers to change the social and health behaviour of teenagers. The three topics cover safe sex, smoking and civic engagement. Chapter 7, 'Peer-to-Peer Politics', continues in this vein giving details of the ways in which teenagers have used their presence on the Internet as a political tool. The 2004 Presidential campaign is labelled as the first truly high-tech election sparked by the low youth vote turnout in 2000. The chapter describes the activities of Moveon.org, a not for profit offspring of two Silicon Valley software developers that saw themselves as providing Internet services to individuals wanting to achieve a particular, usually political, aim. Moveon.org used its networks to fund an ad in the *New York Times* against the Iraq war and organised a 'virtual march on Washington' by email, fax and telephone. It then describes how political campaigning sites have become part of existing social networking sites and been set up as separate political networking sites. The 2004 election attracted increased numbers of voters across America. The 18–24 age group saw the largest percentage rise from 36 to 47%. The book begins with the issue of free downloading of music and this chapter ends with a return to the issue and the way in which initiatives like freeculture.org were started by young people and gathered momentum to challenge and then create an alternative to the power of the music industry to control young people's access to culture.

Chapter 8, 'Legacy of the Digital Generation', concludes the book. Montgomery's main point is that digital media are still new enough for action taken now to guide its future: 'what we need now is a national and international conversation, informed by research, on how digital technologies can best serve the needs of children and youth'. She argues that political debate and state funded research tend to focus on the effects of content, particularly violence and sex, on children and young people, and overlook their role in shaping and generating that content. She calls for 'a more comprehensive multidisciplinary' research effort into understanding the new media culture and its varied and complex roles in the lives of children and young people. Finally, she says that with so much of the policy focus on protecting children, not enough attention has been paid to nurturing their skills and abilities to deal with their changing situation and the potential for the new media to act as a force for civic and political renewal; 'As we consider the policy issues for the Digital Age, the goal of fostering a healthy, democratic media culture for young people must be a top priority'.

This is an interesting, thought-provoking book. It is, however, very much the view from the USA. Montgomery refers to her own daughter as inspiring her interest in the topic so I feel justified in referring to my son. His room is indeed the private haven she describes from which he connects with friends—those he has met and those he hasn't—through text, instant messaging, chat rooms and games. Often he is using a laptop, PC, game station and mobile phone all at the same time. He met his first girlfriend—much to the consternation of both sets of parents—over the Internet on a website on which teenagers post their own art. He does seem to know about new products—particularly games—from sources his parents don't understand and he buys them with his own money. He gets daily news texts from a

national newspaper, which he regards as personal to him and, having just turned 18, regularly emails our local MP about matters of importance to him. If he wants to know anything, he uses the Internet. All this is much the same as Montgomery describes.

However, her analysis underestimates the extent of social, gaming and political networking that cross country, cultural and language boundaries. It therefore does not tackle issues such as the way in which parts of the new media world have commercially constructed regional boundaries which are difficult to cross. Young British gamers, such as my son, regularly compete on-line with Swedes, Danes, Germans and Russians but are separated by the server systems from their American or Asian counterparts. Other parts are borderless. Generation Digital Europe has access to information, news and products from across the world in a way that those of us who rely on TV, newspapers and journals can barely grasp. One wonders whether that interest is reciprocated among their American counterparts? The way in which news that particularly involves young people seems to travel across continents almost instantaneously suggests that American teenagers are keyed in to international events in a way that their elders have not been. How does this affect young people's notion of identity and belonging? With the largest numbers of new Generation Digital being Chinese young people we are indeed in for interesting times in politics, commerce and childhood in the age of the Internet.

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Global E-Commerce: Impacts of National Environment and Policy

Kenneth L. Kraemer, Jason Dedrick, Nigel P. Melville and Kevin Zhu (Eds)

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Global E-Commerce is a rather substantial book. Remarks from leading scholars on the book's dust cover attest to the value of this book. For example, Professor William Dutton from the Oxford Internet Institute notes that the book 'represents an empirical landmark' and that it will be a 'centrepiece for courses'. Professor Niels Bjørn-Andersen from the Copenhagen Business School describes the book as 'definitive ... on the diffusion and adoption of e-commerce/e-business, using a process oriented model'. For this reviewer, the book makes an important scholarly contribution and represents a timely and sober assessment of e-commerce trends across a range of some eight major case study economies: United States, France, Germany, Japan, China, Taiwan, Brazil and Mexico. It is the sort of book that one wished one had in the late 1990s as an antidote to the exuberance of the dot.com boom. It is a pity that time must be the arbiter of the processes of technological change since the wisdom of what we already know about the evolution of network technologies is so readily ignored.

The motivation behind this work, as explained in the book's introduction, is to separate the hype from the reality. The editors explain that they wish to expose the rich phenomena of e-commerce in context which will in turn assist understanding the 'how' and 'why' of e-commerce. They wish to bring a historical perspective to e-commerce as they believe this is lacking in periods of rapid change. This ambitious research programme, titled the Globalization and E-Commerce (GEC) project, was supported by grants from the Information Technology Research (ITR) Program of the US National Science Foundation. The four-year research programme involved not just academic experts in each country but partnerships with groups such as International Data Corporation (IDC) in the US and Empirica GmbH in Germany. The book puts forward four value propositions. First, it aims to provide an enhanced and systematic understanding of the relationship between national environments and policy and the use and impacts of e-commerce. Second, it aims to provide insights for firms, industries and global e-commerce markets. Third, it aims to serve as a benchmark for future studies because of a lack of current cross-country analyses of e-commerce application using systematic survey data. Finally, the book aims to provide a snapshot in time to preserve the early facts of the e-commerce and Internet revolution. Importantly, the editors note that 'The innovation we are studying is Internet-based e-commerce, or simply e-commerce. We define e-commerce as the use of the Internet to conduct or support business activities along firm and industry value chains' (p. 17).

Given the scope of this book, it is very logically set out. The introduction outlines the research approach and the organisation of the book. Included here is a brief overview of the findings of each of the case studies in an executive summary form. Chapter 1, titled Globalization and National Diversity, establishes the theoretical and conceptual framework for the book. The underpinning theoretical basis for the research is found in the literature of innovation diffusion and e-commerce. The work of Rogers, Swanson, Tornatzky and Fleischer and Dasgupta are amongst those mentioned. The authors note that 'We posit that the diffusion and impacts of e-commerce use are driven by environmental and policy factors of the local economy, which are in turn shaped by the global environment' (p. 17). This literature gives rise to three dimensions of the framework supplemented by the following sub-categories: (a) Global Environment; (b) National environment (1. Environment and 2. Policy); and (c) Firm (3. Drivers and barriers, 4. E-commerce diffusion, 5. Firm impacts, and 6. National outcomes). Each of the case studies are arranged and discussed using these headings. Further assisting the reader is a brief summary of the case study findings at the beginning of each chapter. The presentation of the case studies is not overburdened with statistics but rather judiciously uses tables and graphs to support the general observations.

Chapter 2 about the United States, by Dedrick, Kraemer, King and Lyytinen, carries the sub-title 'adaptive integration versus the Silicon Valley model'. The authors of this chapter note that: 'Early successes and impacts of the Silicon Valley do not reflect the more widespread and rich impacts associated with the US pattern of e-commerce development' (p. 66). Consequently, one of the research questions explored in this chapter is: 'What is the pattern of e-commerce development in the USA?'. The pattern in the US has been evolutionary rather than revolutionary. While some e-commerce processes have developed within the Silicon Valley model, a much larger share is characterised by a pattern of 'adaptive integration', in which existing firms incorporate new technologies and business models offered by the

Internet to extend or revamp existing strategies, operations and supply and distribution channels. Not surprisingly, in the US, e-commerce is viewed as just part of the broader evolution of commerce.

Chapter 3 by Brousseau and Chaves is about France. The development of e-commerce in France has been shaped by the characteristics of the country's economy and innovation system. The French national system of innovation is led by large established firms that are not well adapted to the decentralised process of innovation based around the Internet. The early adoption of e-commerce technologies, such as EDI and videotext (Minitel) in the 1980s, proved to inhibit the take-up of Internet based e-commerce. Switching costs and the lack of network externalities have reduced the incentive for consumers to go online. As a result, French e-commerce is portrayed as quite specific, rather weak in B2C and stronger in B2B, but overall lagging by global comparison.

The sub-title of Chapter 4 on Germany by Koenig, Wigand and Beck makes reference to that country as a 'fast follower' of e-commerce technologies and practices. The message here is that German firms have generally embraced and implemented information technology solutions only after they have proved successful in other countries. The relative health of German small and medium-sized enterprises (SMEs) has proved to be positive for the diffusion of e-commerce. While Germany was initially slower than the USA and some other European economies, e-commerce is now a well established part of general business practice.

Chapter 5 by Tachiki, Hamaya and Yukawa is about Japan. Japan's unique industrial landscape and distinctive business culture is seen as having a major impact on the diffusion of e-commerce in that country. Japan is comparable with global measures of e-commerce but lags far behind in achieving some of the key benefits associated with Internet adoption. Local factors are important in Japan and the country's unique characteristics have been reinforced by the use of the Internet.

China is the subject of Chapter 6 by Tan and Wu. China is portrayed as a country that sees its future in 'informatization' but that there is a great disparity between this future and the reality of e-commerce diffusion and use. This disparity is based around China's environment and policy. China has large wealth and geographic inequalities that can hinder the diffusion of e-commerce. Chinese firms also have been adept at leapfrogging in technological development but organisational and institutional factors have held back diffusion. Sectoral industry differences also exist making the diffusion of e-commerce rather piecemeal. Despite this, China is seen as a sleeping e-commerce giant, hampered by barriers, the persistence of which is very hard to predict.

Chapter 7 by Chen reports on the case study of Taiwan. This chapter addresses the diffusion and impacts of the Internet and e-commerce in a hybrid economy. Hybrid in this context means exhibiting the characteristics of both a developed and developing economy. While Taiwan has a large base of technically skilled workers, the legal framework for e-commerce in that country is developing only slowly. As a result, the stronger manufacturing sector in Taiwan is leading the way in e-commerce adoption but the retailing and finance sectors are lagging behind by international comparison. Concerns with computer security and privacy are an impediment to e-commerce diffusion. B2B e-commerce is much more established in Taiwan compared to B2C e-commerce.

Brazil is discussed in Chapter 8 by Tigré. The theme here is that local forces have shaped the evolution of e-commerce in that country. Globalisation is

regarded as a relatively weak shaping force, giving way to local factors such as disproportionate wealth distribution and the demands of a local economy historically affected by rampant inflation. As a result, Brazil shows an inward orientation and 'E-commerce in Brazil is strongly anchored in information-intensive sectors, which are affected slightly by foreign transactions'. Large firms lead small firms in the adoption of e-commerce.

Chapter 9 by Palacios on Mexico emphasises global engagement as driving e-commerce adoption and its impacts. The comprehensive economic liberalisation programme of the 1990s has paved the way for Mexico's positive and promising experience with e-commerce so far (p. 307). B2B e-commerce in Mexico is far larger than B2C e-commerce in terms of total transaction volume.

Chapter 10 by Zhu, Xu, Kraemer and Dedrick is the summary chapter that address issues from the individual country case studies. This chapter revisits the conceptual model and diffusion theory introduced in Chapter 1. The task of this chapter is to establish the benefits of a cross-country analysis and indentify some lessons from it. As might be expected, the lessons are mixed. Some of these insights include the following: there is global convergence in the continuing trend toward e-commerce diffusion; technology diffusion is rarely a smooth and linear process; there is divergence in the relative importance of factors that influence each stage of the diffusion process because firms in developed and developing countries may be at different stages and exposed to different national environments; global convergence and local divergence is evident in e-commerce diffusion; and firms in developing countries generally report greater impacts on their performance as a result of using the Internet for business.

The internal consistency of the theoretical approach taken in this book will appeal to devotees of diffusion theory. The case studies are comprehensively presented and the book achieves the goal of presenting a 'snapshot in time', most convincingly. The case for the way the national environment and policy impacts on the diffusion across a range of countries is well established. Readers looking for a reflective analysis of the pros and cons of alternative theoretical approaches may be disappointed. Readers who don't wish to question the value of the global diffusion of e-commerce or the fact that various barriers and obstacles have to be removed so that progress can take place will have no difficulties with the approach adopted in this book. Readers also looking for a more socially oriented approach, assessing the impact of e-commerce on work, culture and the distribution of wealth, will need to look elsewhere. These are not so much shortcomings, as an indication of the scope and intent of this rather ambitious project. Nevertheless, this book will be valuable to students of the diffusion of e-commerce and should be a useful guide for policy makers, and to a lesser extent, business decision makers, in the short to medium term.

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Scholarship in the Digital Age: Information, Infrastructure and the Internet

Christine L. Borgman

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Scholarship, Borgman asserts, is at a crossroads. Her book is an attempt to stop, look and take stock of the nature and direction of scholarship in the age of the Internet. The Internet is an integral part of academic life (p. 1) where scholarly journals are available online before they are available in print (p. 1); where preprints and penultimate drafts may be posted online before official release (p. 2); and where 'bundles of information products are leased to libraries in place of journal subscriptions' (p. 4). But all of this at a time when 'the technology has advanced much more quickly than has our understanding of its present and potential uses' (p. 3). Borgman maintains that it is not just the way in which scholarly documents are now published, but also the way they are described, indexed, searched, and re-used by the academic and information communities who produce them, and whom they serve, which is rapidly evolving in the digital environment. Her fundamental thesis is not so much that the nature of scholarship is changing, but the digital infrastructure which connects it is, as yet, insufficiently calibrated to fully sustain the flow of documents and data to the best advantage of individual academic scholars and inter-disciplinary research (p. 169).

Through nine chapters, Borgman takes us on a tour of scholarship and how its information flows are changing and expanding through the use of digital technology. She rightly states that the new amounts of data being produced 'far exceed the capabilities of manual techniques for data management' (p. 6). This of course also extends to what searchers are willing or able to browse: 'a typical searcher is willing to browse a set of matches consisting of 1% of a database of one thousand documents, may be willing to browse a 1% set of ten thousand documents, rarely is willing to browse 1% of one hundred thousand documents' (p. 6). In addition, data, increasingly, are 'coming to be viewed as an essential end-product of research'; there is a 'blurring of the distinction between primary and secondary sources that set data in context'; and an increasing trend for 'data sets [to be] listed as scholarly publications in academic vitae and cited as bibliographic references in scholarly articles' (p. 8). Added to this, 'multiple versions of journal articles exist online concurrently, sometimes identical and sometimes different in important ways' (p. 9). Little wonder then, that Borgman states that this proliferation of digital and digitised content 'is part of the evolution, revolution, or crisis in scholarly communication, depending on the perspective taken' (p. 9).

While Borgman is the first to point out that 'the availability of this [new] environment does not lead directly to changes in scholarly practice',¹ she records that the production of ever more digital content is 'pushing the development of scholarly information infrastructure technologies to manage it, and the availability of more digital content, tools and services is pulling more scholars toward using them' (p. 31). She notes that the 'infrastructure for digital scholarship is being built in many places, under many names' (p. 19); that the major investments of the 1990s which vastly expanded, and at the same time commercialised the Internet, have now been succeeded by massive new investments on the part of governments all

around the world to ‘improve the information infrastructure in support of research and learning’ (p. 21). In order to capture the public imagination and gain public acceptance ‘the grand visions of e-Science and cyberinfrastructure are presented as boldly new and revolutionary’ (p. 31), yet, Borgman, maintains, the notions of a global information system can in fact be traced back to the fifteenth century and the opening of intercontinental sea routes and the advance of printing technology (p. 1). Rarely, she says, ‘is anything a complete break with the past’ and in order to establish an effective information infrastructure, embedded behaviours, processes, relationships and artefacts must be both recognised and critiqued (p. 31). Thus Borgman’s primary concern that,

to date, scholarly information infrastructure, whether as a technical, political or social framework is much more about infrastructure than about information [and] relatively little attention is being paid to what information will flow through these networks, other than that it will consist of data, documents and complex objects, and that large amounts of it will flow (p. 39).

Thus the key to making a successful information infrastructure to support academic research, learning and teaching is a comprehensive understanding of the mechanisms of scholarly communication. Borgman’s principal argument is that scholarly communication ‘is best understood as a sociotechnical system, with a complex set of interactions among processes, structures, functions and technologies’ and that ‘efforts to restructure [it] must be based on an understanding of the structures and processes involved’ (p. 73). It follows that efforts to restructure the system must also be based on a reasonable grasp and understanding of the possibilities that the digital world has opened up. Here, Borgman asserts that ‘the delicate balance between the roles of scholars, publishers, and librarians that existed in the print world is now askew’ (p. 77), and gives rise to questions such as ‘what constitutes a publication’ (p. 98); ‘who is a peer?’ (p. 61) and, perhaps Borgman’s biggest question, ‘what will be saved, and by whom?’ (p. 95).

It is the thorny issue of the responsibility for digital preservation, of both documents and data—where Borgman makes a sustained case for much more dedicated access to, and preservation of, the data on which publications depend—that is possibly the most pressing question. Preservation, she points out, is ‘an expensive, long-term commitment’ (p. 95) which, together with the ‘curation and stewardship of the digital record, presents an amorphous problem due to the many types of content and formats, the number of stakeholders, complex contractual and policy arrangements, and the varying technical and economic requirements’ (p. 95). Libraries too, she maintains, ‘tend to be more concerned about content that is “born digital” than with content that is digitized from other formats’ (p. 95). Yet once digitised, it too also needs to be maintained. Concerns include ‘setting boundaries for preservation’ when documents are often so inter-linked (p. 96) for example by electronic references and citation databases; the maintenance of the software—and in some cases the hardware—by which digital objects are produced and managed; and the fact that ‘many in the academic community are reluctant to assign responsibility for the scholarly record to commercial entities, whether publishers or search engines’ (p. 96). Borgman refers to this present disarray and states, rightly, that ‘it is difficult to distinguish the long-term restructuring of scholarly publishing from short-term developments’ (p. 97).

Caught up in the rush of digital developments, it may be easy to lose sight of the fact that ‘the underlying processes and functions of communication have changed little over the last few decades’ and that new innovations are ‘more likely to be successful if they work with, rather than against, the social aspects of the system’ (p. 74).

Time and again, Borgman urges consideration of the social issues that drive scholarly communication. She worries that ‘much more attention has been paid to the technical infrastructure than to the information it will contain’ (p. 262) but points out that ‘the information will far outlive the technology, and scholarly content has more enduring value than most other kinds of information’ (p. 262). Of course, scholars have a direct interest in the access to, and preservation of, the research data and documents they produce. But it is information specialists, like Borgman, who have the knowledge, experience and skills to bring in attempting to impose order and structure on the print and digital scholarly record. She is quite correct to state that ‘no single entity controls the scholarly infrastructure, or the Internet, for that matter’ (p. 264) but at present, the interests of the many stakeholders—scholars, universities, publishers, libraries, funding agencies—are out of balance (p. 264). Scholarly journals, books, and proceedings ‘are the cumulative record that enables each generation to stand on the shoulders of the giants who came before’ (p. 262). If we fail to remember that the myriad, complex technical issues associated with information are ‘social issues first and technical issues second’ (p. 265) we are risking the legacy for the next generation.

Borgman has made her point, yet it seems uncertain whether her book will speak to the wider audiences it must reach if the issues she raises are to be addressed. This is in part due to the breadth and complexity of the issues, but more importantly, because few academic scholars themselves appear either willing or able to take on the responsibility for the information management aspects of their scholarship. Somehow, scholars themselves must have a much greater role in deciding how, by whom, and in what formats their work is published and managed in the new digital environment. As yet, this responsibility seems to extend mainly to the peer review and copyright processes. Scholars—even those, it has to be said, in information fields—often do not see the management of their own scholarship as their role, and have traditionally entrusted this to publishers, libraries and database owners. Academic libraries, as repositories of scholarship, have borne the brunt of responsibility for collection management and preservation, and latterly, migration to digital formats. It is increasingly difficult to see who is going to take ownership of the issues and problems of digital scholarship. Borgman offers no answers here, merely stating that ‘the scholarly communication system has many stakeholders, each competing within its own domain’; the upshot being that ‘no one can predict the outcome of the many possible combinatories of those interactions’ (p. 264). The overall outlook does not appear encouraging: with regard to data, Borgman indicates that ‘only a few fields have succeeded in establishing infrastructures for their data’ and ‘little evidence exists that a common infrastructure for data will arise from the scholarly community’ (p. 225). While the digital environment does, as Borgman relates at length, have increasing capability to make raw, unprocessed data available, it is, she reminds us, the ‘scholarly publications [which] tell the story of data’ (p. 225). If the story is to continue to be told, we need to find ways through the ‘interesting times’ in which we currently live.

Notes and References

1. 'Scholarship in the digital age', *Inside Higher Education*, Available at: <http://www.insidehighered.com/news/2007/11/14/borgman2007>.

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Mobile Communication and Society: A Global Perspective

Manuel Castells, Mireia Fernández-Ardèvol, Jack Linchuan Qiu and Araba Sey

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In the 1990s, I worked at Motorola in Germany at the Human Resources department for what was then called 'emerging markets'. During one of my numerous trips to Schaumburg, Illinois, I visited the Motorola museum, which displays the company's first handheld radios. They were developed in the 1940s and used during World War II, but hardly resemble the small, slick mobile phones that we see nowadays. It took another 40 years to bring the first commercial mobile phone to market, and another 25 years for them to diffuse widely. But, in the process, mobile telephony has changed the way we experience the world. Certainly, it has changed my life. I am German and based in Germany, but inhabit an international environment. My husband is Scottish, my children were born in Glasgow, and I belong to a consultancy network that stretches over the entire globe. My mobile phone makes friends and customers across the world feel close. I can be a loving mum to my children and still run my day-to-day business. My husband meets me in town for a meal without one of us having to wait. My mum calls me in moments of need. And, I can check the price of a flat screen TV at Amazon and compare it with the price of the TV in the shop, right there and then. Mobile communication has become part of my life. So, I was intrigued to see what Manuel Castells had to say about the matter.

Castells and his co-authors have written a book that—quite likely—will be the foundation of future mobile communication research. It collects, and seeks to make sense of, published research available on mobile communication from different corners of the world. Thorough referencing, detailed notes and information about data sources confirm that the book falls under the banner of 'academic research', rather than story telling. To say the least, the authors have opted for an extensive and encompassing approach. The book considers: 'How the possibility of multimodal communication from anywhere to anywhere at any time affects everyday life at home, at work, and at school, and raises broader concerns about politics and culture both global and local' (p. 5). Multimodal communication includes mobile phones, wifi clusters, laptops and wireless handheld devices, such as BlackBerrys, together with e-mail, text messaging, Internet faxing, web browsing and other wireless information services. Social variables addressed are age, gender, ethnicity and socioeconomic status. And the book's geographical coverage stretches to wherever acceptable research could be found. The authors' objective was to find trends or emerging patterns in mobile communication usage.

The book addresses two groups of readers: researchers and the mobile communication industry. Research into mobile communication remains scarce and researchers are urged to do more. Throughout the book, Castells *et al.* point out potential research questions—for example, with regard to security issues, social mobilization, rumor, language, business, or the financial strain of mobile phones that pressures young females to enter the sex industry. The authors also summarize how different customer groups use mobile communication. Here they suggest that the mobile communication industry should enter untapped low-income markets and thereby support economic growth in developing countries. The book's structure—replete with a roadmap—is laid out in the introduction, which includes 18 upfront questions that are explored during the book.

Chapter 1, 'The Diffusion of Wireless Communication in the World', provides us with basic statistics on the diffusion of different wireless communication tools. These compare fixed telephone lines and mobile phones in various areas of the world. Differences in diffusion are further analyzed with regard to the level of economic development, existing fixed-line infrastructure, geographic factors, pricing systems, technological standards, amount of competition, types of service, government policy, sociocultural and other factors. For the more affluent user, mobiles complement rather than replace landline telephony. For the poorer user or the user in areas of poor infrastructure, they replace the landline. Fixed telephones need a credit history, permanent address or a stable source of income, whereas prepaid mobile phone cards do not and are therefore available to a much wider group of people. Obviously, there is a diffusion gap between developed and developing regions, as well as between developed economies. And different regions of the world have had an impact on mobile communication for different reasons:

- Europe for the creation of standards and the greatest diffusion of mobile communication technology;
- the US as they invented it;
- Brazil for being the world's sixth largest mobile phone market and the largest in Latin America;
- Korea for its global influence on device and service developments and manufacture—helped by the fact that the government focused on mobile telecommunications as a key strategic industry; and
- China for the large size of its potential market and for having the largest number of mobile phone users.

Generally, business professionals are still the dominant group of users, however, young people are the quickest adopters—which sounds plausible. Yet, the chapter is difficult to read owing to its considerable compression of a lot of information.

Chapter 2 is called 'The Social Differentiation of Wireless Communication Users: Age, Gender, Ethnicity, and Socioeconomic Status'. Apparently, there are no specific gender differences, only culturally specific gendered usage patterns. Mobile phones are used by both sexes for different reasons, such as a feeling of safety and security, social networking, owning a gadget, remote parenting, ownership as social inclusion, connectivity and as a medium of control. This usage of technology, according to needs and values in different social contexts, seems to seep through the entire chapter. It is very difficult to see a clear pattern as numerous factors seem to play a role in the specific adaptation. As the authors state:

... the social differentiation of technology closely reproduces the social differentiation of society, including the cultural diversity manifested within countries and between countries. Technology, as it is practiced, is society, and it embodies society. And society, which is made of communication, reproduces its cleavages and diverse models of existence in the expansion of its communication mode into the realm of mobile communication (p. 75).

Once more, this chapter offers a lot of information and it is sometimes difficult to see the intended angle of attack.

Chapter 3 is entitled 'Communication and Mobility in Everyday Life'. Again, it seems an immense task to summarize these issues in one chapter. Topics touched upon range from mobility at work and, in particular, the mobility of migrant workers, to micro-coordinated families, the role of mobile communication on safety and security, how sociability has been transformed, and even the way in which public sector organizations have taken up mobile communication to improve their services. Discussion describes the self-regulating establishments of behaviours regarding the use of mobile communication called m-etiquette. This chapter also covers topics such as fashion, the forming of an identity through the mobile phone, consumerism and entertainment and the threats of spam, viruses and the use and spread of photos via the mobile phone. Then it continues with the use of the mobile phone in the movie industry and how it shapes our perception of such things as 'the mobile phone'. From this chapter, we can see that mobile communication—is another mode of communication—is part of everyday life. It states that the positive aspects with regards to work, friends and family is that it allows us to be reached everywhere at any time, which can be liberating; but mobile communication can also become a method of control or a form of dependency. This means that generally, achieved freedom and autonomy is always linked to a greater dependency and control—depending how the phone is used and how much we allow it to blur the lines between family and work. The use of mobile communication might save time or waste time; it could increase efficiency or increase overtime; and the wider benefits, which might arise from connection to an open network, could be undermined by narrow-mindedness that occurs when you always just talk to the same small group. Safety is improved, where you can reach the ones who are dear to you immediately. Connection can be life saving in emergencies. It can also allow hitherto unimagined access to those who are engulfed by horrific events, such as 9/11. On the other hand, it can also have a detrimental effect in the cases of mobile stealing, deceptive messages, control and stalking, fraudulent dating, online pornography and increased prostitution.

Throughout Chapter 3, there are numerous references to Chapter 4. And I began to wonder why the authors did not consider a different book layout.

Chapter 4 is about 'Youth Culture in the Network Society'. In this chapter, the authors seek evidence for the hypothesis that: 'wireless communication provides an exceptional technology of communication to support the dimensions that characterize youth culture in the network society' (p. 146). They describe how youth (from six to eighteen years of age) has integrated mobile communication into their lives. One of the major affects of the use of mobile phones has led to the 'development of networks of sociability based on choice and affinity, breaking the organizational and spatial boundaries of relationships' (p. 144). The mobile phone is seen as a tool of empowerment that can liberate us from controlling forces; however, in the age of consumerism it has also led to the formation of communities of individuals

who isolate themselves in individual-centered networks through ‘tele-cocooning’ (p. 152), i.e. only talking to the same small group. Overall, there is a new intimacy between friends through the possibility of continuous contact.

Mobile phones are attractive to youngsters who seek autonomy and freedom from their parents. However, the authors state that power relationships are not eliminated, only modified. The mobile phone infrastructure supports that market through pre-paid cards and low-cost SMS services. Also, a wider industry has been formed for the individualization of the mobile phone through download ring tones, games, and exchangeable covers, which strengthens the forming of identity. An important transformation of society occurs though through the fact that with technology in general, the youngsters teach the elders.

Chapter 5—‘The Space of Flows, Timeless Time, and Mobile Networks’—could be seen as part of the Castells brand. Yet, it comprises an eight-page philosophical diversion that hardly fits with the book’s flow. The definition of space of flow is ‘the material organization of simultaneous interaction at a distance by networking communication, with the technological support of telecommunications, interactive communication systems and fast transportation technologies’ (p. 171), while ‘timeless time’ is the ‘desequencing of social action, either by the compression of time or by the random ordering of the moments of the sequence: for instance, in the blurring of the lifecycle under the conditions of flexible working patterns and increased reproductive choice’ (p. 171). With regard to mobile communication, this means the saturation of time with calls made or games played during what might otherwise be idle time. Accordingly, ‘mobile time’ emerges, helped by the idea that everyone in the caller’s world is only one call away. The rhythm of mobile time is determined by the rhythms of device use (the actual time used with the mobile device), rhythms of everyday life (the integration of the use of mobile communication devices into everyday life) and rhythms of institutional change (the infrastructure which allows the use of mobile communication devices). All these factors affect the transformation of the space of communication. But the chapter is too small to really make an impression. Most other chapters are between 30 and 50 pages long, so I wondered why the eight-page musing constituted a chapter in its own right—apart from obviously having been written by Castells. It seems out of place and doesn’t refer to findings throughout the other chapters. Although I studied philosophy, I found it difficult to follow. But I have not read Castells’ *Information Age*. Conceivably, you have to be familiar with the Castells’ canon to see its relevance.

Chapter 6, ‘The Language of Wireless Communication’, is an equally short chapter: it explains how ‘written orality’ (p. 179) and texting is transforming language. However, the authors add that more research needs to be conducted in this area. Quite possibly the profusion of neologisms will soon find a place in respected dictionaries as the novelty fades from written orality, tele-cocooning, Tribe Thumb, Generation Txt, flash mobilization or flash mobs, remote mothering, m-etiquette, or m-government. I am not sure why this is a separate chapter too. It could have easily been combined with other chapters.

Chapter 7 is called ‘The Mobile Civil Society’ and offers examples of mobile phone influence in politics such as ‘flash mobilization’, which is the quick gathering of a crowd with the help of mobile communication. I found this chapter the most interesting to read, as it offers stories that clearly depict the situation, rather than facts and figures that sometimes overwhelm the reader in the other chapters. Examples of informing and gathering of a sufficient number of people to change politics are taken from:

- the ousting of the Philippine President Estrada in 2001, when 115 million SMS were sent in one week at the critical times to gather people for a demonstration;
- the electoral defeat of the Spanish Partido Popular 2004, while the party manipulated information on an Al Qaeda attack to suit its own agenda. The media were government controlled, but the right information spread through mobile communication channels; and
- the voting of Korean President Moo-Hyun in 2002, where young voters were mobilized through the use of new media, such as the Internet and mobile communication.

All three examples show that mobile communication can facilitate political change, although the role of technology is shaped by its interaction with many other factors. This chapter also gives examples of failed attempts to change politics with the help of mobile communication in the US, Japan and China. The importance of mobile communication in relation to politics is seen in the fact that mobile communication cannot be controlled, because it is person-to-person. It has also become a tool to share sound and pictures, enabling people to become immediate witnesses of incidents.

Chapter 8, 'Wireless Communication for Companies', is addressed at the Mobile Communication industry. It details reasons for mobile communication's diffusion, or failure to diffuse, in different markets, especially in the developing world. Vodaphone sponsored a study in Africa showing that mobile phones have a significant impact on economic growth through networking and the advantage of mobility. It questions how much mobile communication helps to leapfrog the necessity for fixed line communication infrastructure. Often this infrastructure is lacking or services are unreliable in developing countries. For the poorer part of the community, it is simply unaffordable to have a fixed line telephone. Numerous models to share or reduce mobile phone costs have formed. For example, there are calls that are not meant to be answered but only to alert the recipient, handsets are shared amongst friends, or phones are shared amongst families. The authors criticize some of the mobile communication companies of short-term thinking, if rates are too high a barrier for the low income areas to afford it. Other examples are given, where the industry adapted to the local infrastructure needs by supporting local entrepreneurs with a low cost franchise for a wider diffusion of mobile phones, mobile phone booths, or a local place to charge mobile phones. Also, services have been adapted in some regions to provide low cost handsets and services such as the 'Little Smart' in China, 'Personal Handy Phone System' (PHS) in Japan, 'Wireless Local Loop' in India, and Wifi in the US.

The conclusion shows that mobile communication is a mass consumer product, part of the communicative practice, and young people are the drivers of diffusion. There are also different social trends interacting such as the modification of the communication process as technology becomes part of society. Important is also the fact that with mobile communication, youth is on the cutting edge of innovation. Social implications are inherent such as safe autonomy, relentless connectivity, together with building networks of choice and instant communities of practice. The research also showed that mobile communication is about connectivity and that users are becoming dependent on connectivity. Indeed, negative sides of human behavior are amplified with mobile communication. And as the technology seeps through our society: if you don't have access to it, you lose out.

Taken as a whole, the content of the book could have been interesting, but its style and the layout made it difficult to follow. Fewer statistics and more stories from the users might have made a much bigger impression and a more enjoyable read for a broader audience. A little history of the mobile communication industry wouldn't have gone amiss. And the listings on the combination of factors that are all related to mobile communication could have been broken up with stories of pre-mobile communication, including themes such as how youth communicated with their parents and how autonomy is so important to them, or how prostitutes would have otherwise advertised their services or kept relationships with their customers, or how migrant workers' relationships were upheld, or how African business people would run their businesses otherwise. Sometimes it was difficult to follow the thread of the content. It felt as if numerous people were writing different chapters, but they could not render their findings part of a coherent whole. Some of the research reported was inconclusive, while other parts were contradictory or developed from incompatible perspectives—it seemed as if being comprehensive was more important than being coherent.

The book is *not* bedtime reading—although, for anyone who is interested in the topic of mobile communication, it offers some interesting facts. As Castells *et al.* state 'technology is society' (p. 246) and mobile communication shapes the way we live our lives. But those who dare to dream of more incisive insight might be disappointed.

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Mobilizing Minds: Creating Wealth from Talent in the 21st-Century Organization

Lowell L. Bryan and Claudia I. Joyce

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It is important to note, at the outset of this review, that the authors of *Mobilizing Minds* are both senior members of McKinsey & Company, the international management consultancy. In writing the book, therefore, the authors have obviously drawn upon their experiences observing organizational behavior within client organizations and no doubt the advice they have given to these clients, and in that sense the book represents the distillation of many years of experience in the field. This has produced an artifact that is both a passionate 'call-to-arms' as well as a blueprint for organizational redesign, featuring some strong and exceptionally detailed recommendations for organizations seeking to operate effectively in a twenty-first century competitive environment.

I will return to the content of the book below, but it is reasonable to suggest that in providing process redesign detail of this nature the authors have focused very firmly upon readers who are senior managers in large organizations seeking options that may offer their organization the potential for wide ranging organizational performance improvements and enhancements. While there is commentary

here that is of interest to the academic, and ideas that may stimulate the student, the focus upon communicating with strategic decision-makers is perhaps the most striking feature of the book.

The book adopts the operating premise that the arrival of the digital age has brought with it both opportunities and threats and, they argue, has changed how organizations must configure and coordinate their assets to compete effectively. They argue that most large organizations, even successful ones, are the product of twentieth century thinking and assumptions. The book asks why do we or should we assume that conventional organizational designs that worked in the twentieth century should work in the twenty-first century (p. 7)?

The digital age, they argue, has created a major potential benefit for organizations; developments in information technology and exchange have freed their talented people from the mundane unproductive complexity (pp. 24–9) inherent in large organizations, allowing them to focus upon having good ideas that will create value. Or at least that is the theory; the reality they suggest is that most large organizations have yet to reconfigure themselves to take advantage of the advantages technological advances have provided. Organizations that recognize the extent of the change, and act accordingly, will reap considerable benefits. Organizations which do not change, or change too slowly, may lose their advantage or may not even survive long term. They point to the performance of current ‘thinking-intensive’ mega companies such as Microsoft, GE and Toyota who employ more of their people in creative ‘mind-work’ and consequently generate supra-normal rents.

What are the mega companies doing that is generating such rents? They are maximizing the competitive advantage provided by their intangible assets. The authors argue, quite convincingly, that whereas twentieth century organizations sought competitive advantage based upon tangible assets, twenty-first century organizations will do so based upon their intangible assets (such as brand, reputation, intellectual property, and other elements familiar to anyone who has studied the resource-based view of the firm.¹ Furthermore, they argue that as most of an organization’s intangible assets are directly linked to its people, modern organizations need to maximize the value of knowledge workers, and should therefore configure themselves to take advantage of the knowledge, expertise, and innovative capabilities of their mind-workers. The book then sets out a series of recommendations intended to show how this may be accomplished, and illustrates the practical application of these ideas by the use of a fictitious example developed from the US banking industry (Global bank).

I mentioned earlier that the book goes into extreme detail in exploring rationale underpinning each recommendation, and indeed how organizations may go about redesigning and implementing the recommendations singularly or in combination. Explanation and exploration of recommendations account for 232 pages of the book. The authors do not limit themselves to any particular function or managerial level; they offer a redesign for the entire organization. The authors examine the hierarchical structure of the organization, focusing upon the concept of the ‘backbone line structure’ (p. 71) which simplifies the hierarchy of the organization, clarifies line-reporting and decision making responsibilities and puts decision-making in the hands of managers close to the field of combat. The military connotation is intended; throughout the book the authors laud the military for their configuration of assets to ensure that key decisions are taken by ‘field commanders’, close to the action and capable of responding quickly to environmental stimuli. Hence, redesign aimed at fast, flexible decision making.

This idea to manage an organization better is followed by another; a structural configuration aimed at establishing ‘one-company governance’ (p. 103), which breaks down silos within firms which prevent those firms from working together to generate the highest possible rewards for the organization. Additionally, the authors tackle what they consider to be out-dated and harmful internal financial performance measurement and accounting methods (p. 239) and performance evaluation practices (p. 268), in both cases arguing that systems produced to operate in twentieth century contexts need updating for the new operational environment of the twenty-first century.

Interesting as these may be for managers, it is the ideas the authors recommend to improve the flow of intangibles that I suspect will be of most interest to more casual readers, and offer a series of concepts which may influence evaluative research in future years. These concepts are interesting precisely because they offer organizational solutions to a number of themes developed by academics seeking to further the development of a resource-based view of the firm. In short, the authors provide a series of recommendations as to how an organization can configure its knowledge assets to effectively create and sustain competitive advantage based upon the outputs of these knowledge assets. This section of the book focuses upon three big ideas to improve the flow of intangibles within the firm, suggesting that organizations:

- need to develop formal networks (p. 169) to facilitate communication between knowledge workers, essentially arguing that the free interchange of ideas is too important to the competitiveness of most organizations to allow profitable interactions to depend upon chance—if your employees knowledge is important to your competitive advantage, the organization has a responsibility to create networks that allow them to talk to each other;
- often do not recognize a ‘common organizational aim’, and horde knowledge and knowledge workers out of sight of the rest of the organization. Hence, the authors argue that ‘talent marketplaces’ (p. 190) are required to enable talented employees to be deployed throughout the organization building upon and in turn sustaining the idea of ‘one-company governance’ discussed earlier; and
- might understand how to store information, but do not appreciate the importance of sharing knowledge. Large organizations therefore will benefit from ‘knowledge marketplaces’ (p. 211) which make knowledge available throughout the organization, but also reward the ‘owners’ of knowledge to incentivize them to make it available. It is often said that in organizations’ ‘knowledge is power’, but it usually implies that power depends upon keeping control of knowledge. Here the authors argue the opposite—that freeing knowledge to be used where it is most valuable brings real rewards to an organization.

These are all interesting ideas, and offer solutions to issues emerging from attempts to operationalize, effectively, the knowledge-based view of the firm.² As noted, the book focuses upon bottom-line performance improvement, but there is significant material here to stimulate empirical testing of these ideas by academics to possibly offer support for the potential suggested by these innovative ideas. This section of the book also effectively demonstrates the sophistication of the authors analysis—they believe that their recommendations can produce an organization ideally configured to prosper in the digital age. While they suggest that organizations

can adopt their ideas piecemeal, it is clear their preference would be for organizations to adopt this blueprint wholesale.

The authors, at the outset of the book, make it clear that the purpose of this book was not to pursue balance but to strongly advocate a plan to improve organizational performance, and this they have done. One manifestation of this decision was not to focus too closely upon the inevitable limitations or constraints that may prevent organizations from adopting their blueprint. While such a decision is understandable—it speaks to the authors' conviction that these actions are necessary and indeed vital—it did leave me with a persistent concern. The authors focus upon the potential benefits of the changes they recommend, but suggest that the risks are minimal as they involve time rather than major capital investments, but this is a little disingenuous. The extent of the changes recommended are massive, and given that the focus of the book is mega-institutions who currently operate in the global environment rather than relatively small emerging organizations, the implication is that firms need to be fundamentally re-engineered to benefit from them. Small or emerging organizations may benefit from adopting these ideas, but in truth the potential to generate supra-normal rents is a product of the size and scale of mega-institutions, so the benefits will not be of the same order of magnitude. Would such an evangelical fervor find a receptive audience once the extent of the change is appreciated?

Another concern is that the authors have seemingly chosen to overlook the actual difficulty of establishing a one-company perspective. Many have advocated similar principals, but agency issues and self-interest remain common experiences in even the most enlightened modern organization. Despite these concerns, and recalling that the call-to-arms was never intended to offer a balanced argument, rather an ideal type, there is much here to interest a manager starting to feel that there is a developing gap between what the market wants, and what the organization can provide.

The book does touch upon some live academic debates. As mentioned above, there is considerable overlap here with debates within the RBV and the knowledge-based view of the firm, and the authors suggest a number of ideas which will be of interest to readers of the dynamic capabilities³ literature. The book also refers to ideas which are similar in tone to issues being discussed in the area of real-options reasoning,⁴ as well as disciplinary debates in management accounting and human resource management. However, as mentioned above, the key constituency that the book attempts to speak to is senior managers and potential clients of McKinsey & Co. Many of the arguments contained within the book are convincing, and the argument that organizations should focus upon creating an environment where their knowledge creating assets can flourish is well made and based upon an informed and logical interpretation of forces at work in many markets. The suggestions contained within the book will give such readers something to think about, but I wonder how many will be brave enough to accept the challenge posed.

Notes and References

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