

Foreword

by Kai Jakobs

This is the first time I've been asked to write a foreword, and I feel honoured (and flattered) and indeed privileged to write a foreword for this highly interesting book.

In fact, in a way there are three books in one. First, we have a history book. While I suspect that this is rather more unintentional, the book does offer a nice account of the more recent developments in the cellular communication sector, from the various analogue 1G system of the 1960s and 1970s to the hugely popular digital 2G systems (most notably GSM) of the 1990s to the multi-media 3G systems most of us are using today. From a standards point of view, the book shows how the different generations emerged, why they emerged the way they did, and which stakeholders were driving the process.

The second book is about theory building and application. The “Self-Organized Complexity Unfolding Model” is a combination of Actor Network Theory and the theory of Self-Organised Complexity. It is shown to be very useful for the task at hand as it enables a holistic analysis of an organisation's standardisation strategy. Looking at one particular point in time of the “unfolding” process, the “Cross-Sectional Framework for Organizational Standards Strategy” provides us with a tool to analyse how a firm's standards strategy is shaped by a particular situation in time and the firm's (subjective) interpretation of this situation.

Thirdly, there is the management book. It offers descriptions of each individual stakeholder's situation, its perceptions and interpretations of this situation, the resulting actions and strategy, and the ultimate outcome of the interactions of the individual strategies. With the benefit of hindsight, we can now evaluate which of these strategies were successful and which were not. This, in turn, should inform future research activities and, hopefully, management and policy decisions.

I would consider especially the latter as crucially important. Research in fields like Management Studies should not just be *l'art pour l'art* (as far as one can see; this may sometimes be different in the Science and Engineering fields) but have rather immediate practical ramifications. That is, ideally this research should inform both scholars and—most notably, in my opinion—practitioners. DongBack's thorough analysis does exactly that.

Above, I have mentioned the “history” dimension of the book. Most historians I know are extremely reluctant when asked to draw some conclusions from their insights into historical developments that might be helpful in today's environment. They have a point. Lessons that may have been valid during, say, Charlemagne's times (I'm from Aachen) will hardly be applicable today. The respective environments are just too different. However, I, nonetheless, happen to believe that lessons can be learned from history. The technologies analysed in this book are from the 1960s onward. Since then, society, international relations, and, specifically, ICT have changed faster than in any other period in history. Yet, I believe that the boundary conditions are sufficiently similar today to allow us to draw conclusions from past experiences and events discussed in this book that will remain valid for a while. Moreover, the six

elements of an organisational situation identified by DongBack that form the basis of her study are “time invariant”—they can be applied for an analysis of the current situation, for the (not too distant) past and for the (also not too distant) future.

The book also nicely highlights the importance of another trend that is still ongoing today—globalisation. The development of 1G systems was pretty much a national affair—individual states developed their individual national systems. For 2G, the scope of standardisation had moved to the “regional” level, with basically four developments (two of which survived) going on in parallel in three parts of the world. During this phase, we also saw trans-regional alliances in support of a technology. Thus, it is a logical extension of this trend that from 3G onward standardisation of cellular systems has become a global affair. While this may be seen as old news, managers, policy makers, as well as researchers need to be very aware of the fact that standardisation developments going on in, say, Korea, may well have significant ramifications for Europe and European firms, and vice versa. ICT is a “global” technology, and both companies and nation states need to take this into account.

The book highlights two other—interlinked—lessons. Number one is that even robust-looking trajectories may well be interrupted and number two would be that such an interruption may well be caused by one single stubborn firm with a superior technology. Obviously, this makes strategists’ and policy makers’ lives more complicated. On the other hand, it clearly demonstrates the need for at least manufacturers and service providers to be active in ICT standardisation; in many cases just being an “observer” may suffice to get early warnings in case a new technology emerges as potential competitor.

DongBack’s book discusses all the issues I have touched upon thus far and more. I am convinced that the book will be highly beneficial for readers with very different backgrounds. For one, researchers may use the book’s tools and insights, for example, to extend the framework for an organizational standards strategy. The book is also relevant for corporate standardisation managers as well as for general strategists. After having read the book, they will be in a much better position to adequately appreciate the importance of ICT standards and standardisation and to devise an adequate corporate standardisation strategy and to actually implement it. This, in turn, may ultimately help a firm to survive.

All in all, I trust the book will significantly contribute to a better understanding of how corporate standardisation strategies are shaped and thus, ultimately, to better strategies. At the end of the day, all of us would stand to benefit from that.

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Kai Jakobs joined RWTH Aachen University’s Computer Science Department as a member of technical staff in 1985. Since 1987, he has been Head of Technical Staff at the Chair of Informatik 4 (Communication & Distributed Systems). He holds a PhD in Computer Science from the University of Edinburgh and is a Certified Standards Professional. Kai’s current research interests and activities focus on various aspects of ICT standards and the underlying standardisation process. He is Vice President of the European Academy for Standardisation (EURAS), as well as founder and editor-in-chief of the International Journal on IT Standards & Standardization Research, and of the Advances in Information Technology Standards and Standardization Research, and the EURAS Contributions to Standardisation Research book series. He has (co)authored/edited a text book on data communication networks and, more recently, sixteen books on standards and standardisation processes, with a focus on the ICT sector. More than 180 of his papers have been published in conference proceedings, books, and journals. He has been on the programme committee and editorial board of numerous international conferences and journals and has served as an external expert on evaluation panels of various European R&D programmes on both technical and socio-economic issues.