

Standards Policy for Information Infrastructure

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Irrespective of various visions of 'Information Infrastructure', be it at the global or national level, the critical role of standards in realising the full benefits of this Infrastructure is beyond dispute. But evolving a policy for standards in a contested terrain where various stakeholders (users, governments, manufacturers, service providers, etc.) have very different views about the ideal standard is more difficult. This volume provides a detailed overview of the issues relating to evolution of standards for information infrastructure and offers many interesting insights. To do full justice to this volume with more than 30 contributions in a brief review like this is impossible.

Basically the issue is not to develop a rigid set of standards but to develop a dynamic, flexible set of standards that could provide interoperability to users. To achieve this goal three models of standard development are put forward. Each model, the market based model, the internet model and the telecommunications model has its own advantages and disadvantages. But the increasing sophistication and diversity of users, besides proliferation of a wide variety of providers of products and services makes the development more complicated. Emergence of consortia to address issues of compatibility and interoperability indicate that these consortia have advantages over Standards Development Organisations (SDO). But SDOs and consortia can complement each others' tasks and build a symbiotic relationship. In more than one way governments influence the evolution of standards. The various agencies of the government dealing with communication standards, etc., have realised the importance of standards to make the best use of National Information Infrastructure (NII). How to develop the appropriate interoperability for NII is a controversial issue, for which many answers have been provided. To what extent Intellectual Property Rights (IPRs) hinder or help the development of standards is another controversial issue, which is addressed by this volume. IPRs can hinder the development of standards and their rapid use in many countries, particularly in developing nations. But the industrialised nations have been pressing for stronger IPRs although even within these countries there is no consensus on this issue. For example it is argued that from a public policy perspective very strong IPRs hinder rather than stimulate the development and use of standards.

A coordinated effort by SDOs, industry, users, regulators etc. is necessary for development of standards for NII. But this effort will not provide the wanted results if there is no clear cut strategy on development of standards. Other factors like financing standardisation activities should be given the importance they deserve. What is the stake and role of the public in the development of standards is a crucial question since the goal of NII is not only to increase public access but also to provide innovative services to the public. Many of these innovative services will be made available for the first time. Which agency is best suited to represent public interest in the development of standards is a question which cannot be wished away. Building a seamless web of interconnected, interoperable communication networks, computers, and databases is a challenging task which could not be accomplished in the absence of well defined standards. But this is easier said than done. Even a cursory reading of the position papers of users, manufacturers and others involved in this task shows how divergent the views could be. For instance while some argue for continuous improvement and warn that we need to balance objectives, others would argue that the current standards process is outdated and

is not fulfilling the expectations of users. Similarly while some do not approve of government's active role in development of standards and would prefer the SDOs, and consortia to perform this task, others argue that government should not only play an active role but also provide leadership to the process. These conflicting views are not unique to the US. Rather they reflect the growing importance of Transnational Corporations (TNCs) at the international level. For instance, many TNCs are actively involved in supplying, building and managing telecommunication infrastructures. Similarly in the IT industry, global players dominate the market. One has to understand the controversies in development of standards in this context. Again, the example of Europe, where the European Telecommunication Standards Institute (ETSI), which played a major role in development of European telecommunication standards indicates that the standardization process, how ever complicated and complex it may be, is essential for maintaining competitive advantage.

It has been pointed out that TNCs and consortia are actively involved in tasks relating to standardization, which was once reserved for governments and international agencies.¹ With the signing of global accords under the World Trade Organisation (WTO) for liberalisation of telecommunication services and IT products, this process will gain momentum. With the rapid convergence of computers and communication technologies, the development of standards will become a key area for co-operation as well as conflict. This volume helps the reader to understand the various dimensions of this issue and the views of various actors involved in this question. Although most of the contributions are from the US and deal with questions specific to the US, it is relevant for readers elsewhere also as the debates in the US are too important to be ignored. The vision of NII in the US provides inspiration for similar initiatives elsewhere also and so this book is an important contribution to this topic.

Had there been any contribution from organisations like EFF (Electronic Frontier Foundation) or CPSR (Computer Professionals For Social Responsibility) it would have been better. Still this does not reduce the importance of this volume for readers and policy makers, who are dealing with the development of Information Infrastructure and standards.

Notes and References

1. A.M. Rutkowski, 'Multilateral Cooperation in Telecommunications', in William J. Drake (ed.), *The National Information Infrastructure: Strategies for US Policy*, The Twentieth Century Fund, New York, 1995.

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Information Security—The Next Decade

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This volume is subtitled *Proceedings of the IFIP TC 11 eleventh international conference on information security, IFIP/Sec '95*. It contains 45 papers arranged in 12 parts on the following themes: Information Security and Business Applications, Information Security Standards, Management of Information Security Cryptography, Key Management Schemes and Mobile Computing; Information Security and Groupware; Building Secure Applications; Open Distributed Security; Access Control; and Legal, Ethical and Social Issues of Information Security. Each part contains generally three to five papers. Three