



Business and Industry Advisory Committee to the OECD

Comité Consultatif Economique et Industriel Auprès de l'OCDE

BIAC DISCUSSION PAPER¹

BIAC Committee on
Information, Computer and Communications Policies (ICCP)

A Framework for Focusing Discussion on *Electronic Business* in the Context of a Global Information Infrastructure Global Information Society

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Introduction

The concept of a Global Information Infrastructure - Global Information Society (GII-GIS) has captured the imagination of the world. Since its inception it has been embraced by world leaders across the globe. Its promises and its dangers have been debated at length, but remain the focus of continued discussion and dialogue.

Perhaps more importantly, however, a global information infrastructure is a foundation for a phenomenon of a more far-reaching impact. **Electronic business**, and more narrowly, **electronic commerce**, which are enabled by the significant computing and communications changes currently taking place have the potential of altering the very ways in which individuals interact, businesses conduct their affairs and governments provide services.

As the OECD looks to its future, electronic business and commerce loom large in its priorities and activities. Although, due to the technologies involved, the Directorate for Science, Technology and Industry and the OECD Committee for Information, Computer and Communications Policies (ICCP) will play a central role in the analysis of policies related to electronic business and commerce, the issues actually reach across the breadth of the Organisation. Interactions at all levels of government and business will change in response to the new environment and policies in all sectors must be reviewed and revised accordingly.

Obviously, numerous organisations are beginning to focus on the impact of electronic commerce and involve themselves in some way in the subject. However, as BIAC indicated in its November, 1996, Consultation with the Heads of Delegation to the OECD, we believe that the

¹ This paper is submitted by the BIAC Committee on ICCP to provide a context for discussing possible modality of business involvement in OECD work on electronic business, electronic commerce and GII-GIS. It should not be considered as a paper representing BIAC's conclusive views on these subjects.

OECD is an ideal forum for a discussion and development of policy recommendations relating to the new paradigm. The countries represented in the OECD are responsible for the vast majority of commerce in the world today, and the OECD, through The Business and Industry Advisory Committee (BIAC), has an established mechanism for the participation of business.

In this context, BIAC proposes a framework within which this discussion could take place. Because electronic business and the GII-GIS is such an expansive concept, we believe it is important to place this discussion within an analytical context. Otherwise, the examination may well result in a series of disjointed discussions on seemingly unrelated issues.

Background

As the OECD has noted in numerous reports, the convergence of computing and telecommunications is occurring at a rapid pace. Computing is at the heart of telecommunications networks while telecommunication networks are providing the underpinning for business computing in today's environment.

Over the past two decades, computing and telecommunications have evolved from stand-alone processes used mainly in the administrative areas of a business into an integrated part of the production process in most enterprises. Whether an organization is producing a product or delivering services, computers are today involved in virtually every step of the process.

Today, networks link information systems via telecommunications in different parts of an enterprise and ultimately also link enterprises themselves. Moreover, customers are increasingly linked to suppliers, to each other, and to other entities in such a fashion as to create a global network of links and paths virtually from any individual to any other individual. Business, government and individuals are increasingly dependent on computers and networks.

The emergence of this dependence between computing and telecommunications forms the basis for the GII-GIS which, in turn, provides the foundation for the conduct of electronic business and electronic commerce. At the same time the convergence of the technologies involved is blurring the issues and regulatory regimes between the disciplines while bringing other issues to the fore. Coupling this with the global nature of the emerging infrastructure creates a critical need for a framework in which to categorise the issues and to place them in a context for analysis.

Framework

BIAC proposes that the environment of the GII-GIS be viewed in the context of three dimensions. **Figure 1** is a pictorial representation of this concept. In Figure 1 the x-axis represents time, the y-axis the policy issues themselves broadly grouped into three categories, and the z-axis the continuum from individual national policies to global ones. **Figure 2** is a more detailed, two-dimensional representation.

The first broad category of policies, the foundation, which we refer to as the *infrastructure* (Network and Information Technology Platforms), relates to the physical network and computing platforms themselves. Issues related to these must be resolved first so that applications can operate efficiently and effectively over existing networks and that new networks can be built. This, of course, is a critical component which forms an underpinning for the entire GII-GIS and electronic

business/commerce concept. Economies which are successful in developing this category are well positioned for further development of electronic business and electronic commerce. Issues which are typically addressed in this area are competition, safeguards, spectrum availability and equipment certification. Many of these issues are currently being addressed within the context of the Working Party on Telecommunications and Information Services Policy (TISP) of the OECD Committee for ICCP.

The second category, which we have labelled *enablers*, consists of issues which are essential to allow the infrastructure to be used for commerce in general. These issues include security, privacy, intellectual property, taxation and electronic payment. Many of these issues were previously in the background or were not even considered. Their importance has become pre-eminent, however, with the concept of a GII-GIS and the possibilities unleashed in electronic business/commerce. In general, these are issues which are not prone to being addressed once and then ignored. Rather, these policies must be flexible and should be adjusted over time in response to new concepts in technology and society at large.

If a user, be it an individual, a multinational corporation or government, does not feel comfortable placing their business or services over the infrastructure, the GII will likely not achieve its full potential and electronic business and electronic commerce will not be conducted ubiquitously. In addition, these are issues which must be discussed within an international fora for these concepts to develop on a truly global basis. Thus, the OECD is well suited to consider these issues, and, in fact, is already doing so in a number of its substantive bodies .

The third and final category, *applications*, consists of issues, both general and industry specific, which either inhibit or enhance the conduct of commerce over the network . An example of a general issue in the application category is “the year 2000 problem”. Transportation, health care, financial services, energy and education are examples of industry specific sectors which should be considered.

Applications, obviously, are the "raison d'être" of the GII-GIS and the drivers of electronic business and electronic commerce. Applications deliver the benefits and unlock the potential of the concept. In addition to examining specific applications and the benefits to society associated with them, it is also important to examine non-technological barriers to the diffusion of information and communications technology (ICT) and to the use of electronic business/commerce in each sector.

It is felt that an examination by the OECD of barriers or inhibitors to the diffusion of ICT and the conduct of electronic business on a sector by sector basis globally would be most forward-thinking and would focus the organization on the issues that it needs to be dealing with in the future. For example, tele-medicine is a subject of considerable interest in the health care area. However there are a number of barriers to the use of tele-medicine across national boundaries, not the least of which is licensing requirements of each individual economy. Issues of this type exist in each of the industry sectors, and a methodical examination of the sectors to discover them will be most helpful for the full utilisation of ICT and electronic business in the future.

Conclusion

BIAC believes that the OECD is an ideal forum for the discussion and policy recommendations which are needed in regard to the GII-GIS and electronic business and electronic

commerce. It is an inter-governmental organisation which conducts policy dialogue on the basis of scientific analysis, and has an established process for the involvement of business.

Further, BIAC considers that the framework it has proposed is an ideal model to use to focus and develop the discussions. The GII-GIS and electronic business/commerce are cross-cutting issues which require input, study and co-ordination among many of the substantive bodies of the Organisation. As proposed, this framework contains only a portion of the more significant issues which need to be addressed. However, BIAC feels that its model is flexible and that new issues, or more refined ones, can be placed within the overall context of the framework which has been proposed.

This framework also introduces the concept of evolution - the fact that there is an order to the development of fully functioning electronic business, particularly in less developed economies. Although work proceeds in parallel in all these layers of the framework concurrently, some development of infrastructure and some essential enabling policies generally are necessary prior to meaningful application implementation. Often economies attempt to implement fully functioning applications without either the physical infrastructure or policy structure to do so.

Finally, BIAC feels strongly that it is time to begin examining the sectoral issues which inhibit the diffusion of ICT and electronic business/commerce in each sector. For electronic business and electronic commerce to truly develop and mature, non-technological barriers need to be identified and methodically addressed by the world's leading economies.

Figure 1. Global Information Structure

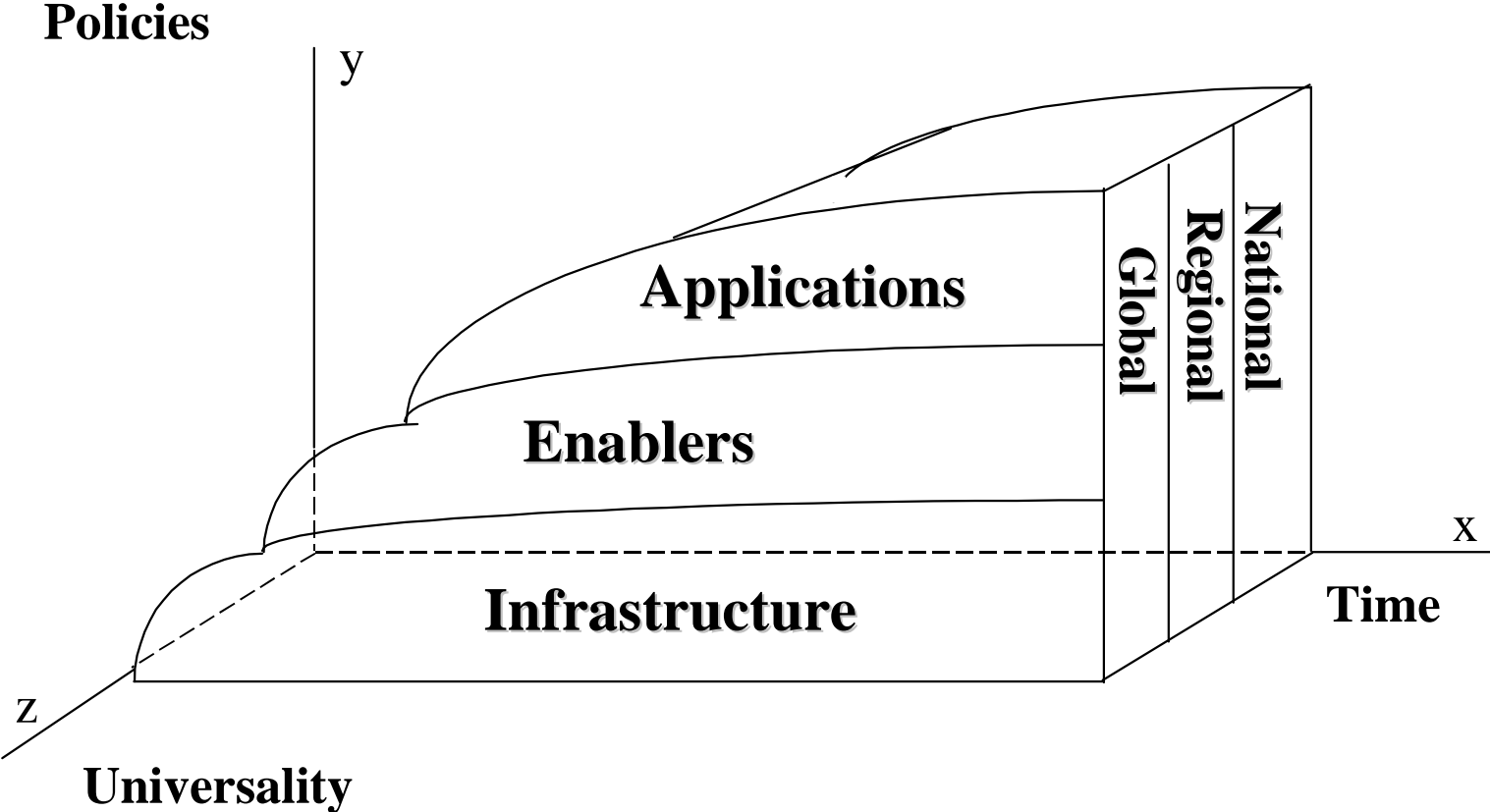


Figure 2. Global Information Structure
 (with some illustrative examples of issue areas)

