Building an Information Society: a Latin American and Caribbean Perspective

Martin Hilbert
Jorge Katz

Economic Commission for Latin America and the Caribbean

Santiago, Chile, January 2003

Distr.
LIMITED

LC/L.1845
January 2003

ORIGINAL: ENGLISH

This document was prepared by Jorge Katz, Director and
Martin Hilbert, Researcher of ECLAC Division of Production,
Productivity and Management.

The preparation and analysis for this document has been carried out by a number of contributors, including Noah Elkin, Richard Downes, Sven Rusch, Iain Ballesty, Alejandro Arancibia, Glen Canessa, Manuel José Cárdenas, Jacqueline Abarza, John Tonelli, Gonzalo León, Claudio Orrego, Robert Rodrigues, Marcelo Bonilla and Felipe Jara.

We also would like to thank Oscar Altimir, Antonio Rosa, Tadao Takahashi, Francisco Gómez Alamillo, Julio César Margáin y Compeán, Christian Nicolai, Paulo Lopes, Joost Laga, Javier Carranza, Mikio Kuwayama, Martin Hopenhayn, Eli Noam, Ben Petrazzini, Nelson Correa, Patrick Nixon, Lasse Nagel and Martina Hirschmann for their direct or indirect contributions.

The opinions expressed in this document, which has been reproduced without formal editing, are those of the authors and do not necessarily reflect the views of the Organization.

Copyright © ECLAC, United Nations, 2003
All rights reserved
Printed in Santiago, Chile

Contents

Abstract 7
Preface 11
Overview 13

Chapter I
Theory and strategy 21
A. Towards a theory on the information society 21
1. Information and knowledge 22
2. Information and communication technologies (ICTs) 25
3. The four layers of digital activity 29
4. ICT for development 36
5. Integrating the technological paradigm into a development approach 41
B. Strategies for an information society 43
1. Technical change and the window of opportunity 44
2. Leapfrogging and catch-up 46
3. Technology-based divides 51
4. Entering the present window of opportunity 55

Chapter II
Horizontal layers in Latin America and the Caribbean 61
A. Infrastructure 61
1. The digital divide 63
2. Infrastructure and Internet traffic flows 76
3. Digital television 82
4. Mobile communications 89
B. Generic services 102
1. Business applications 103
2. Software implementation in companies 113
3. Software as a service: Application Service Providers (ASP) ... 118

Chapter III
Diagonal areas in Latin America and the Caribbean 125
A. Regulatory frameworks 125
1. Telecommunications regulation 126
2. Judicial framework 143
3. Intellectual property 151
B. Financing 159
1. The macro and microeconomic background to the transition 159
2. Investing in the development of an information society ... 163
3. Financing a universal information society for all 168
C. Human capital 182
1. Human capital for an information society 182
2. Technical profiles 186

Chapter IV
Vertical sectors in Latin America and the Caribbean 197
A. E-Business 202
B. E-Government 222
C. E-Health 232
D. E-Culture 247
E. E-Learning 257
F. E-Media 273

Chapter V
Policy Agenda for the Information Society in Latin America and the Caribbean 289
A. Strategies for an Information Society 289
B. Building the Infrastructure Layer 295
C. Building the generic services layer 298
D. Regulatory frameworks for an information society 300
E. Financing an information society 302
F. Human capital for an information society 304
G. E-Sectors 307
1. Digitizing the economy (e-business) 307
2. Digitizing government (e-government) 309
3. Digitizing the health sector (e-health) 310
4. Digitizing culture (e-culture) 311
5. Digitizing education (e-learning) 313
6. Digitizing the media (e-media) 314
H. Final consideration 316

Bibliography 317

Special Acknowledgements 335

Abstract

New technological options that permit the use of digital systems to create and disseminate information around the world are paving the way for new means of organizing society and economic production and are gradually giving rise to a meta-paradigm that has come to be referred to as the "Information Society". Viewed from the perspective of developing countries, the question of how to employ this emerging paradigm to achieve broader development goals and to integrate them more fully into the global Information Society is an issue of the utmost importance on the development agenda. In seeking to address this challenging issue, the present document asks three key questions:

1. What does the "Information Society" consist of?

The first chapter of this study develops an analytical framework to consider the many complex issues involved in the construction and operation of an Information Society.

2. What are the basic characteristics and distinctive regional aspects of the transition to an Information Society?

In order to understand what current and future paths Latin America and the Caribbean can choose to follow in making the transition to an Information Society, chapters two, three and four review some of the specifically regional features of the current process.

3. What policies can help to facilitate the transition towards an Information Society?

The fifth and final chapter proposes a positive agenda for the Latin American and Caribbean region's transition to an Information Society.

Resumen

Las nuevas tecnologías que permiten crear y difundir información en todo el mundo mediante sistemas digitales están conduciendo a nuevas formas de organización social y producción, y dando origen gradualmente a un metaparadigma conocido como "sociedad de la información". Ante esta situación, la búsqueda de formas de aprovechar este paradigma emergente para lograr metas cada vez más amplias e integrarse más plenamente en la sociedad mundial de la información adquiere una importancia fundamental para los países en desarrollo. En vista de este desafío, en el presente documento se plantean tres preguntas de primordial importancia:

1. ¿En qué consiste la sociedad de la información?

En el capítulo I del estudio se ofrece un marco analítico para la consideración de los numerosos y complejos problemas que suponen la construcción y el funcionamiento de la sociedad de la información.

2. ¿Cuáles son las características básicas y las peculiaridades regionales del proceso de transición a la sociedad de la información?

Para facilitar la comprensión de las diversas vías que pueden tomar América Latina y el Caribe en el proceso de transición a la sociedad de la información, ahora y en el futuro, en los capítulos II, III y IV se examinan algunas de las características de este proceso en la región.

3. ¿Qué políticas podrían facilitar la transición a la sociedad de la información?

En el capítulo V se presenta una agenda positiva para la transición de América Latina y el Caribe a la sociedad de la información.

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_2926