Economics of Information Technology and the Media

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Economics of Information Technology and the Media

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To Wai Seng, Susan, Vincent and Peggy

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Foreword

As we prepare to welcome the dawn of the new century, we feel increasingly overwhelmed by the development and application of new information and communications technology (ICT). The new media and new information technology (IT), in their ever-changing forms, are shaping every aspect of our lives from work to education to leisure to the management of interpersonal relations, from the office to the family to the school, and from politics to entertainment to culture to the economy. All indications suggest that we will see more new media and IT, in their hybrid and convergent forms, being developed and introduced as we enter the new millennium.

Sociologists tell us we are living in an information society, while economists stress the growth of the information sector of the economy. Communication researchers, on the other hand, focus on the changing process of communication, the new network of distributing and disseminating information and the social and political impact of the new ICT. What is missing is an analysis of information, information technology and the new media, as well as their content as economic goods. An analysis of the process of production, distribution and consumption of such goods requires a new perspective grounded in classic economics. Similarly, the laws of supply and demand can be applied, but only with some qualifications. Our understanding of modern communication would be incomplete without an informed analysis of the economic dimensions in this era of new ICT.

This book fills the gap. It applies an economics framework to an analysis of the nature and scope of information technology and the new media. It is a welcome addition to the scholarly literature in both economics and communication studies.

For the author, this book complements her earlier works on *Professionals at the Crossroads* (Times Academic Press, 1996), *Housing a Healthy, Educated Wealthy Nation through the CPF* (Times Academic Press, 1997) and *Political Economy of City-State: Government-made Singapore* (Oxford University Press, 1998). It introduces a new perspective for all students and researchers of new information technology and the media.

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Preface

Information exploding through information technology and the media has become a central, rather than peripheral, resource in the knowledge-based production of goods and services involving suppliers, producers, information providers and information users. An economic framework using supply and demand to attain equilibrium to denote the efficient allocation of the factors of production and optimum welfare is appropriate in considering the economics of information technology and the media.

Information technology and the media is undergoing rapid change and development and defining the nature and scope of this area is not an easy task. Neither is it simple to analyse the field from an economics perspective since socio-political and legal dimensions are also involved. The impact of the information and communications technology (ICT) revolution is both shrinking and expanding the global economy and creating many paradoxes (Naisbitt, 1994), even as it breaks the tyranny of space and time or causes the death of distance (Caincross, 1997). This book tries to meet the challenge in four parts.

Part I addresses the economics of information. Chapter 1 introduces various concepts and definitions of information, information technology, knowledge and information economy and media. Chapters 2 and 3 cover relevant theories and principles in both macroeconomics and microeconomics.

Part II focuses on the players and markets in information technology and the media, namely, sellers and buyers (chapter 4) and the government (chapter 5). The impact on employment and labour (chapter 6), the role of technology (chapter 7) and the management of information, especially with multimedia (chapter 8) further highlight the relationships and interactions between players and markets.

Part III considers public policy in the national context (chapter 9) and the global sphere (chapter 10). Both national information infrastructure and global information infrastructure have spawned information and media networks in order to operate efficiently and effectively. Increasing and liberalising trade in telecommunications services allow more countries to enjoy the socio-political and economic benefits of a global economy connected in a fluid, seamless form. Finally, Part IV presents empirical evidence, applications and case studies from the Asia-Pacific region.

The book is motivated by a general lack of educational material on the economics of information technology and media. Yet, in many countries in the Asia-Pacific, mass communications and the media are growing in importance as subjects are taught at both the university and polytechnic levels within communications, management or engineering departments. The book can be used as a textbook, a source book or a structured synthesis for teaching, research or policy making on the subject. It will complement the extant literature on other technical aspects and project the contribution of economics and other social sciences on information technology and the media.

Linda Low

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