

Chapter 15

Understanding the Policy Implications of ICT for Development

Matthew Clarke
Deakin University, Australia

ABSTRACT

Information and communication technologies are thought by some to offer a new solution to world poverty. It is argued that information and communication technologies (ICT) allow poor countries to 'leap-frog' traditional stages of development and become immediately engaged with the 'new economy'. Such an optimistic view requires appropriate government policies to facilitate this shift. Interventions required would include improving access levels and quality of telecommunication and electricity infrastructure, improved quality of education and numbers of those accessing education, and providing both direct and indirect support to encourage local firms to become engaged with the global economy. Ironically, these policies are consistent with current orthodox development policies currently pursued within the 'traditional' economy. This chapter therefore considers what exactly is new about ICT in terms of its potential impact on the poor.

INTRODUCTION

This chapter questions whether there is anything 'new' regarding the policy prescriptions required to enhance the lives of the poor through information and communication technologies (ICTs). The world economy continues to evolve and in recent years has been most markedly shaped by the convergence of two long-run broad trends:

globalization and advances in information and communication technology (ICT) (see Solow, 1987; Pohjola, 2002a; Sheehan et al., 1995; OECD, 1996a, 1996b; World Bank, 1999). The result of this convergence is a 'new' economy, in which knowledge takes prominence over traditional productivity inputs (land, labour and capital) in driving economic growth (Drucker, 1993). Within this new economy, ICTs have assumed a dominant role and are thought by some to offer a new approach to development and improving

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the life of the poor. It is argued that ICT allows poor countries to 'leap-frog' traditional stages of development and become immediately engaged with the 'new economy' and take advantage of emerging opportunities to achieve economic growth and raise material standards of living. But are the policies required to take advantage of this new environment substantially different to mainstream policies required to achieve development within the 'traditional' economy?

Over the past five decades (and increasingly so over the past two decades) the conflation of the rise in the relatively free flow of trade and capital between most countries and acceleration of advances in ICT and the subsequent increase in the knowledge intensity of the production process has resulted in a 'new' economy. Knowledge now characterizes this new economy and provides the competitive advantage for firms and countries seeking to increase economic growth and social well-being (Mansell, 2002; Mansell et al., 1999; World Bank, 1999). The central tenet of this new economy is the significance of knowledge to the global economic process. The codification of knowledge allows it to be quickly and cheaply delivered to where it is needed, be transformed as required and be made effective in machines and other production and service delivery processes. This codification has enhanced the impact of ICT as a means of production. Knowledge has been so incorporated into the world economy that it has caused structural and qualitative changes in how the global economy operates. Within this economic reality, such knowledge-intensive development has been termed as e-development (Clarke, 2006).

The truly revolutionary aspect of this new economy is that knowledge has become un-bundled from its physical carrier (Quah, 2001). The consequence of this is that it is now possible to separate the economics of knowledge from the economics of physical objects. Where the means of the production traditionally have had a physical presence (it was possible to handle land, labour or capital), this is no longer the case with the new

economy. As knowledge becomes the central means of production, its physical manifestation is no longer important. As a result, as economies grow within this new economy, an increasing percentage of a nation's income will have little or no physical presence.

This sits in contrast to the past in which poor countries and wealthy countries were largely divided by an 'object gap'. Economic development required ownership of or access to resources (natural raw materials, labour) and physical capital (engines, factories, roads). However, within the new economy, constraint to economic development is less concerned with access to 'objects' per se and more related to access to knowledge. The 'digital gap' means a lack of an educated workforce, but also a lack of suitable investment in appropriate ICT that is integrated into the economy. Presently, poor countries that experience this digital gap, lack the ideas or knowledge that are used in industrial countries to generate economic value (Warschauer, 2003). It is important to note that these two 'gaps' are not mutually exclusive and poor countries generally suffer both. However, as the new economy becomes more dominant, the relative importance of the objects gap to achieving economic development will lessen in favour of minimizing the digital gap (though this view is contested – Wilson and Heeks, 2000). Within the new economy, the burden of the object gap and its constraint to development are not as of great importance than in the traditional economy (Mansell et al., 1999; Mansell 2001). Opportunities therefore now exist within the new economy for developing countries to experience accelerated growth by taking advantage of what might be termed 'e-development', which is development based on maximizing the opportunities provided by investment in and use of ICT.

It is possible to imagine a spectrum of possible outcomes that may result from the shift to the new economy brought about by the conflation of globalisation and the ICT revolution. However, highlighting two extreme views might assist in

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