Chapter 8
Embracing Emerging Technologies:
The Case of the Singapore Intelligent Nation 2015 Vision

Pak Tee Ng
Nanyang Technological University, Singapore

ABSTRACT
Many countries are attempting to develop themselves as intelligent nations, equipped and empowered by advanced info-communications technology (ICT). This chapter describes and analyses how Singapore attempts to develop an intelligent nation under its umbrella vision and strategy of Intelligent Nation 2015 (iN2015). It examines the substance of the vision and highlights some of the initiatives implemented to realise the vision. It also discusses the different roles of the government in implementing the iN2015 vision and some of the challenges ahead.

1. INTRODUCTION

As info-communication technology (ICT) rapidly advances, many governments around the world launch initiatives to get their country wired and connected, both nationally and internationally, in order to navigate and compete more effectively in the knowledge age and economy. Many countries are reviewing and restructuring their national network infrastructures, information and media regulations, and fiscal policies to match the speed of these ICT drivers. If they do not match up or transform themselves into intelligent societies, they will be left behind in a connected global economy. Many areas of the society are affected by such technological advancement: basic communications, education, health care, business, and even lifestyle (read, for example, Drucker, 1993, 1998; Greider, 1997; Ohmae, 1990, 1995; Poster, 1990; Postman, 1993; Webster, 1995). These areas will benefit from the development of an integrated network of national information super-highways.

This chapter describes and analyses how Singapore attempts to develop an intelligent nation under its umbrella vision and strategy of Intelligent Nation 2015 (iN2015). It examines the substance of the vision and highlights some of the initiatives implemented to realise the vision. It also
discusses the different roles of the government in implementing the iN2015 vision and some of the challenges ahead.

2. INTELLIGENT NATION 2015 (IN2015)

Launched in 2006, the Intelligent Nation 2015 (iN2015) vision is a 10-year master-plan to grow the info-communications sector and build a well-connected society, thus fulfilling the aim of becoming an intelligent nation, empowered by the latest technologies. According to the Info-communications Development Authority of Singapore (iDA), iN2015 will propel Singapore into the ICT forefront to ensure continued international competitiveness (iDA, 2006). This 10-year master-plan culminates in 2015, which coincides with Singapore’s 50th anniversary of its independence and nation-building.

According to the Finance Minister, Tharman Shanmugaratnam, the info-communications industry today contributes 6% to Singapore’s Gross Domestic Product (GDP). Info-communication technology usage in Singapore households ranks among the highest in the world, with at least one computer in 74% of Singapore homes, more than 40% dial-up Internet penetration, household broadband penetration at 42%, 99% island-wide broadband coverage and mobile penetration rates at 92% (Tharman, 2008). But beyond physical ICT provisions, the iN2015 vision aims for a state of complete ease among citizens with technology, where technology enables new businesses and lifestyles.

A high-level iN2015 Steering Committee was formed at the inception of iN2015 to oversee the project. In particular, its aim was to identify areas of opportunity where ICT could create new value propositions and innovative services, thereby enhancing the competitiveness of key economic sectors in Singapore. These sectors include Digital Media and Entertainment, Education and Learning, Financial Services, Healthcare and Biomedical Sciences, Logistics and Hi-Tech Manufacturing, and Tourism, Hospitality and Retail. The committee also examined how ICT and other emerging technologies (e.g. sensor technology, bio-computing and nanotechnology) could transform the way people live, work, learn and play, the ICT infrastructure to support the future ICT needs, the ICT manpower development strategies to support new high-growth industry clusters, and government policies and regulatory frameworks to support the ICT edifice. Efforts to develop iN2015 include (iDA, 2006):

- seeking views and perspectives of local and international info-communications players;
- seeking views and perspectives of business players in key economic sectors such as manufacturing, logistics, healthcare and education;
- environment scanning and analysis of future global and local trends;
- examination of Singapore’s (and the info-communications industry’s) strengths and weaknesses, as well as possible opportunities and threats;
- review of the current state of info-communications development; and
- identification of the long-term info-communications industry structure and manpower profile.

In a way, the iN2015 vision is not totally new. Rather, it is the confluence of various efforts made in the past, for example:

- **1981–1985**: Singapore embarked on the National Computerisation Plan in the Civil Service to develop automated work functions and improve internal operational efficiencies. This was a massive exercise and laid the foundation for subsequent ICT development in other parts of the economy.