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AUTHOR Soong, Cecilia  
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## ABSTRACT

The information society is a society in which the quality of life, as well as prospects for social change and economic development, increasingly depend on information and its exploitation. In such a society, living standards, patterns of work and leisure, the education system, and the marketplace are all influenced by advances in information and knowledge. The Singapore government is a strong supporter and advocate of Information Technology (IT). One of the three priorities of the government for Singapore's education system in the 21st century is to exploit computer technology for enhancing classroom learning. This paper discusses the negative impact of IT economically, socially, politically, and morally, and the challenges this impact presents to the government. It also discusses the impact on families and how to counsel families of the IT age. Family problems are mostly stress-related; stress is often compounded by advances in technology. Counselors are encouraged to address this issue with families. Clients should learn to be accountable, and adaptable, in learning how to manage stress. (JDM)

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## A Vision of an Intelligent Island

Cecilia Soong

Lecturer, National Institute of Education  
Singapore

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### Introduction

Singapore is a small island with a land area of 647.5sq km, spanning 42 km from East to West, and 23 km from North to South. It has a population of 2,986,500, with an ethnic composition of Chinese (77.4%), Malays (14.2%), Indians (7.2%), and people from other ethnic groups (1.2%). She has a per capita GNP of \$35,035.8, and a per capita GDP of \$34,788.4. Singapore's labour force comprises 1.748m people, and the unemployment rate is 2.7%.

### The state of Information Technology (IT) in Singapore

The information society, according to Martin (1995), is 'a society in which the quality of life, as well as prospects for social change and economic development, depend increasingly upon information and its exploitation. In such a society, living standards, patterns of work and leisure, the education system and the marketplace are all influenced markedly by advances in information and knowledge. This is evidenced by an increasing array of information-intensive products and services, communicated through a wide range of media, many of them electronic in nature.'

The Singapore government is a strong supporter and advocate of IT, so well enunciated by Mr Goh Chok Tong, Prime Minister of Singapore, 'The future belongs to countries whose people make the most productive use of information, knowledge and technology.' (1993) To this end, the vision of Singapore as an intelligent island is encapsulated in the IT2000 Plan. Together with 14 leading technology companies, including Microsoft and IBM investing \$100m, the government has committed \$82m towards the Singapore ONE project - a major component of the IT2000 Plan. This is an island-wide network to develop multimedia applications and services.

Singapore's national computerization plan started in 1980 where there were only 850 computer professionals; in 1995, this figure escalated to 80,000, with more than 90% of companies using IT. According to the World Computerization Report, Singapore is among the top nations in the world to have effectively exploited IT; and culled from the Computer Industry

Almanac (1991), Singapore is one of the top ten countries in terms of number of computer per capita.

IT2000 seeks to develop a global hub for business, services and transportation; to boost the economic engine in manufacturing, commerce, construction and tourism; to enhance the potentials of individuals in multimedia learning, interactive distance education, extension of media to cultural institutions, knowledge navigation and provision of extra help for the disadvantaged; to link communities nationally and internationally through community telecomputing networks and the Singapore International Net; and to improve the quality of life with one-stop, non-stop government and business services, teleshopping, cashless transactions, more options for leisure, easy computing, telecommuting, better healthcare and intelligent buildings.

Singapore's emphasis on education has been unrivalled, gaining the greatest proportion of the government's budget pie. One of the three priorities for Singapore's education system as it heralds into the 21<sup>st</sup> century is to exploit computer technology for enhancing classroom learning. This translates to a five-year masterplan, costing \$1.5b to use IT more widely in the classroom. By this year, every primary school will have at least 100 computers, and pupils will spend 10% of curriculum time learning in an IT environment.

In terms of ownership of personal computers in Singapore households, one in three households owns a personal computer, according to a survey. The typical home computer user is a man, a young working adult aged between 20 and 29, who has tertiary qualifications, the survey also found.

Drawing from the previous paragraphs on IT in Singapore, the positive impacts of IT on the Singapore family are mainly economic. Mr Ko Kheng Hwa, the chief executive of the National Computer Board, explicates that IT is critical to Singapore's national competitive advantage and our development economically. The coming of the IT age, according to the Minister of Education, Rear-Admiral Teo Chee Hean, has a big impact on the way we lead our lives, how we work, study, enjoy our leisure time in the workplace, in schools and at home. In redefining how

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we interact with our fellowmen, IT is not just a technological revolution, but a dramatic social revolution as well.

In the area of education, families, especially the parents, can continue their learning through distance learning. Aimed at strengthening bonds, families can be linked to their members studying or working overseas via the Internet. IT also creates other ways to form social bonds, linking parents together, linking old folks together or linking volunteers together.

In making transactions more efficient, either through teleshopping or engaging in government and business services, there is more discretionary time, leaving the family members more time for leisure whereby there can be more interesting pursuits. Hence, their quality of life - culturally, socially and intellectually - can be improved.

#### Negative Impact of IT and challenges for the government

##### *Economically*

Garson (1995) delineated the four horsemen of the apocalyptic theories of computing as despotism, dehumanization, de-skilling and disemployment. Certain jobs will be obsolete, and this may not involve only those unskilled and low-skilled jobs. Jobs that require much training and skill like shorthand and draughtsmanship, will be displaced and replaced by wordprocessing, voice-recognition and computer-aided design and manufacturing systems. However, new jobs will be created especially for those able to master the latest developments in IT. To redress this issue, the Singapore government, harnessing the Skills Development Fund, is constantly re-training and re-skilling her workforce.

IT is a double-edge thing; while it gives speed, efficiency and effectiveness, paradoxically, it puts demands on one's time, one's working and family life. Technology has not made life easier, just busier. In this way, it engenders much stress, especially in a highly competitive and achievement-oriented society like Singapore.

In attempts to counteract the effects of fast-paced living and the over-emphasis on the ethos of excellence, the government has been promoting the notion of gracious living among Singaporeans. The latter are encouraged to take time to enjoy the arts, to cultivate the reading

habit and the like, instead of being overly obsessive with amassing material wealth. Such efforts are fledgling at the school level, with music, art and drama appreciation programmes.

### *Socially*

A survey has found that personal computer users, especially Internet surfers, are watching less TV, exercising less and spending less time with their family. It discovers that Net users spend an average of nine hours a week on-line; some avid surfers responded that they spend 20 hours a week in cyberspace. About 50% of the 4,000 respondents also said they were sleeping less; and 840 respondents said these had taken over their social life. They said they now spent three to four hours a week with friends and family, which is less than before. Parents also think that their children tend to spend too much time on computer games. As for the Internet being an addiction, Dr John Elliot, a National University of Singapore psychologist, said, 'Unless it starts to affect a person's day-to-day functioning, such as forgetting to turn up at work, or relationships being strained - if it happens, then it becomes a worry; otherwise it's fine.'

Singaporeans' main concern of computers is much more physical - they feel that using them hurts the eyesight. The social impact appears minimal, for after all, although something 'human' may be lost in computerization, 'humans are remarkably resilient and seem to find new ways of establishing authentic interpersonal relationships regardless of the state of technology' (Garson, 1995).

### *Politically*

The IT age expands our information space, with the exchange of information made possible almost instantaneously with people around the world, whether it be conducting business or looking up databases. However, the nagging doubt is that if Singaporeans are so plugged into the world and the region, would they wander off to live their lives elsewhere, or transfer their business activities elsewhere? In conjunction with the government's encouragement for Singaporeans to think globally, will Singaporeans wander off and become lost in cyberspace?

To ensure that Singaporeans are rooted to Singapore, the government has enshrined the following shared values for Singaporeans to adopt: nation before community and society before self; family as a basic unit of society; community support and respect for the individual; consensus, not conflict; and racial and religious harmony. Furthermore, to keep the family intact, these family values are promulgated: love, care and concern; mutual respect; filial responsibility; commitment; and communication.

In addition, to foster a sense of community abroad, Singapore clubs are spotted all over the globe, with the Singapore International Foundation spearheading these projects. To further preempt the brain-flow and to instil in Singaporeans loyalty to the nation, another priority of Singapore's education is to emphasize national education. The goal is to ensure that students are aware of Singapore's constraints and opportunities, and it will be delivered through community service and commemoration of key historical events.

#### *Morally*

With regard to the Internet, with more than 7m people at 1.2m attached hosts in 117 countries (Martin, 1995), there have been complaints which were allegedly upset by the political, religious or racist content of the messages. The most contentious, however, is the alleged pornography on the Internet. The dangers of the easy flow and interchange of information cannot be over-emphasized. Censorship rules in the rest of the world have gone berserk, and one really cannot control as people are at the mercy of anyone who wants to create websites of objectionable material. Moreover, as English is more prevalent in the information services, there is potential erosion of our culture and value systems.

Although standards of control are required, a sense of balance is reasonable. In the case of over-control, one loses the benefits one can get from being connected with the Internet. Nevertheless, some restraint of contents is expedient, not just contents with anti-government ideas, but ideas with impact on the social harmony, e.g., pornography, violence. According to Brigadier-General George Yeo, Minister of Information and the Arts (1996), it is the responsibility

of service providers to block their gateways so that access to objectionable materials can be controlled.

The ultimate way to ward off the undesirable influences is self-regulation. To achieve self-control, the government is educating the public on the sort of values that Singaporeans want for their own country and society. Such teaching is again endemic in schools where values are taught in moral education classes. Parents too, are the target of the new Public Education sub-committee of the National Internet Advisory Committee. Net-confused parents can ask questions and hold forums on the specially created web pages on tips for parents. Such tips include inculcating proper netiquette, telling children to report suspicious activities to them, exploring the Internet with their children, never responding to offensive messages, encouraging children to share what they have encountered on-line, and not to meet face-to-face with another computer user met on-line. Parents are also encouraged to install filtering programmes, like Netnanny -although not fool proof- to cut off access to undesirable items.

Community policing is also a government initiated measure where collectively as a group, Net-users show a 'symbolic' attempt to avert all unpleasant influences, to either collectively ban it or not look at it.

#### Helping families in the IT age

The changing Singapore family in the 1990s is characterized by dual-income families and nuclear families which necessitate increasing childcare services and services of domestic maids. Moreover, the rate of divorce has escalated, giving rise to an increased number of single-parent families. Consequently, family-related problems in Singapore in the 1990s are stress-related problems, runaways, juvenile delinquency and gangsterism, and teen suicide.

The level of stress is compounded by the stress brought about by technology, and the ease of use, accessibility and affordability of videos on demand and home entertainment, which pose a challenge to the moral fibre of society. It behooves counsellors to address stress in the IT age. In dealing with stress in the IT age, one needs to be aware of how stress affects the body both physically and mentally. This leads to an analysis of the source of stress. Acceptance is a vital

stress management technique, of knowing one's limits and lowering one's expectations according to one's ability and capability. Teaching clients to be accountable - to do something to correct the problem before it gets out of control, is another important step. A last move is adaptability - staying in control of stressful situations, overcoming obstacles, neutralizing all negative thoughts, practising time management, being in a relaxed frame of mind, learning how to express one's feelings and listing one's priorities in life. Helping the client understand and manage stress is veritably of paramount importance in the IT age.

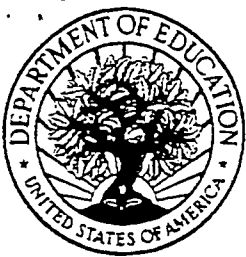
Taking a proactive stance, in Singapore, public education programmes are a prevailing mode of psycho-education. These are delivered by the various government ministries like the Ministry of Community Development, or the family service centres sprouted all over the island. Schools too encourage family life education, as part of their pastoral care and career guidance programme, with parents being the main targets. Counsellors and social workers would provide meaningful insights in addressing issues like family relationships and communications, stress management, morality, values and decision-making.

### Conclusion

Willy-nilly, the IT age is here to stay, and will move beyond 2000. Change is a given, but the kind of change which denotes a major transformation in the ordering of social affairs is open to question. To anticipate the accompanying social revolution, one needs to take stock of one's position and to pre-empt the problems that may beset oneself and one's social milieu of family, friends and the community.

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