The Hong Kong Council of Social Service
Information Technology Committee
Position Paper on Digital Divide in Hong Kong

1 Introduction

1.1 As an international city, Hong Kong has been very successful economically. Our respectable legal system, and the sound banking and finance structure are not only assets we are all proud of but also provide an important foundation upon which businesses can flourish. To maintain its competitive advantage in the new information era, Hong Kong is migrating into an economy leveraging on information and information technology capability. [1] Information infrastructure therefore is becoming an important part of the equation.

1.2 Infrastructure, however, should not only refer to the physical setup such as optical fibre and high-powered machines. General computer literacy and access of the public to information technology are also important factors leading to the overall social development and economic success. International data shown in Figure 1 [2] indicates that the Internet penetration rate of Hong Kong ranks number 5 in the Asia Pacific Region, far behind Singapore and South Korea. In the same chart, it is also evident that when compared to other cities, Hong Kong's Internet penetration does not commensurate with its GDP. There is a big gap between our potential and the solid execution.

1.3 On top of economic reasons such as providing a local market for e-business and maintaining a computer-literate workforce for international competition, access to information technology is also an important social issue. Although there is no scientific evidence on information technology development leading to poverty, many believe that there is a strong association between the two. Not only is it more difficult for the computer-illiterate unemployed to acquire jobs, low-skilled labour are also at the fringe of loosing their positions if they do not develop their computer competency.

1.4 Our Government has been pushing ahead with the development of information technology in the last few years. Recently, it is prepared to import IT practitioners from the Mainland without any limitation in quantity, signifying an earnest demand of IT specialists in the city. A new economic structure based on information technology, besides dictating a change of the operational modes of our business and trade, is shifting the power base towards those who could master the technology; on the other hand, those who are less competent would be sacrificed. As a matter of fact, the ability to learn and to use information technology is becoming more a basic life skill than a luxury.

The implementation and likely rapid development of the SAR government initiative Electronic Service Delivery (ESD), the preferential treatment to e-banking users offered by the banks, and the growing difference of employability between computer-literates and illiterates are all indicative of a widening Digital Divide. A few disadvantaged groups – such as the low-income families, housewives, the elderly – due to their financial conditions, academic achievements and jobs, are unable to catch up with the development of information technology. Consequential to their lesser access to information technology, it is likely that they would be further marginalised in terms of life chances, employability, access to resources, citizen rights and quality of life. It is also widening the poverty gap between the rich and the poor. Failure or sluggishness in moving towards universal access to information technology and the Internet will lead to further polarization in society, leading to potentially serious social consequences.

2 Measuring Digital Divide

2.1 The recent Thematic Household Survey Report No. 2, compiled by the Census and Statistics Department of HKSAR has for the first time provided a useful snapshot of the magnitude of Digital Divide in Hong Kong.

2.2 As expected, people in lower income households tend to have a lower percentage of having computers at home (Table 1) [3]. Among all households with monthly household income below $10,000, only 15.3% have PCs at home. The percentage keeps increasing with higher income brackets. For households with monthly household income of more than $50,000, 82.2% have PCs at home.

2.3 The percentage of computer users in the group of elderly, the less educated and the economically inactive are also found to be much lower than other groups (Table 2, Table 3 and Table 4). [4]

2.4 The survey also shows that these groups are less likely to use ESD and less supportive to the government investment in the development of information technology. The most disturbing part of course is that they are also less able to see the trend of daily life needing the assistance of information technology.

2.5 Besides, there are also evidences indicating a substantial difference in attitudes towards information technology development in Hong Kong between computer users and non-users. It is reasonable to believe that most of the discrepancy between the groups of information-haves and have-nots could be attributed to knowledge deficit. According to the survey, “Do not know how to use computer”, “Lack of confidence/skills in using computers” are popular reasons for not having computers at home and accessing Internet

from home. Thus, awareness of and skills in mastering information technology are highly essential amongst the disadvantaged groups.

2.6 It is a pity that the survey does not include much information about people with disabilities, their usage of computer and access to Internet. Nevertheless, inferring from the fact that most people with disabilities would belong to the lower income group, their needs and demands would by and large be reflected in the survey. It should also be apparent that their special need for costly assistive peripheral equipment has posted extra problems to accessing information technology.

2.7 The demand for more knowledge could also be reflected by the usually over-subscribed computer training courses / interest groups / awareness building sessions run by NGOs in the community. A survey done by HKCSS in 2000 amongst the elderly group also showed that the demand for more computer training in the community was very high. [5]

3 Tackling Digital Divide

3.1 There are different programmes for tackling Digital Divide. These programmes however need the blessing of a high level governing policy so that different government departments could work towards the same goal. The US has identified universal access to the Internet as a top national policy. Neighboring countries such as South Korea and Malaysia have also tailored their IT policies to tackle Digital Divide.

3.2 At the programme level, there are four different dimensions or approaches to tackling Digital Divide.

3.2.1 Infrastructure Building. This includes the provision of equipment and connectivity to the disadvantaged groups. Establishing the so called "Cyber-points" in the community belongs to this category. Programmes used in other parts of the world include subsidy or loan for disadvantaged groups to purchase or borrow computers to use at home, recycling old computers or organizing donations of new computers for low income families, and supporting the not-for-profit IT operations or Internet Service Providers either run by volunteers or subsidized staff providing Internet access to disadvantaged groups.

3.2.2 Skill / Capacity Building. This refers to the wide spectrum of induction and training ranging from awareness raising (such as IT Hong Kong initiated by ITBB), IT interest groups, formal training and advanced training organised by various formal training institutions or NGOs in the community. Other initiatives such as establishing and maintaining a group of volunteers readily available to

provide IT support to disadvantaged groups, and the facilitation for the disadvantaged individuals to support each other all belong to this category.

3.2.3 Proper Design. This includes both the various programmes to promote practical design of equipment to suit the use of people with special needs and the notion of barrier-free design of websites and software, for instance, for people with disabilities. The construction of best practice guidelines for website design in relation to the need for the visually impaired is an example of what professional bodies could help in addressing Digital Divide.

3.2.4 Web Content. People from the disadvantaged population might have special needs for information. They might also need to come together within the cyberspace to learn, to share and to network. Vertical portal sites for various disadvantaged groups such as elderly, women and people with disabilities in other cities and countries are believed to be useful in fighting Digital Divide.

3.3 With reference to these four approaches, the Council has listed in the Appendix some programme ideas. The SAR Government is urged to study the feasibility of these ideas and implement the relevant programmes at the soonest possible.

4 Recommendations

4.1 The government should acknowledge the urgent need to narrow the gap between the information haves and the information have-nots as fundamental elements of sustainable social development. Universal no-barrier access to information technology and the Internet should be a major objective and a guiding principle in the overall information technology policies of the government. Disadvantaged groups, being less capable to help themselves in catching up in the information era, should have priority in receiving assistance.

4.2 A task force to tackle Digital Divide should be set up. The task force should be convened by the Government, with membership including users, professional bodies, information technology services providers, non-government organizations and relevant government departments. Besides providing a forum for discussing the issue, it should also be a venue to facilitate cross sectoral collaboration. Reasonable and effective measures to tackle Digital Divide should be adopted via concerted effort. Commercial entities, especially telecommunication carriers and Internet service providers in particular, should be encouraged to participate in fighting Digital Divide. For example, related licensure requirements should be considered in addressing the need for commercial entities to realize their social responsibility.

4.3 Various programmes in the categories of a) Infrastructure Building, b) Skill / Capacity Building, c) Proper Design and d) Web Content (with examples in the Appendix) should be supported and conducted in a balanced and synchronized manner.

4.4 Indicators to measure the magnitude of Digital Divide should be updated and reviewed periodically in order to monitor the progress and effectiveness of programmes.

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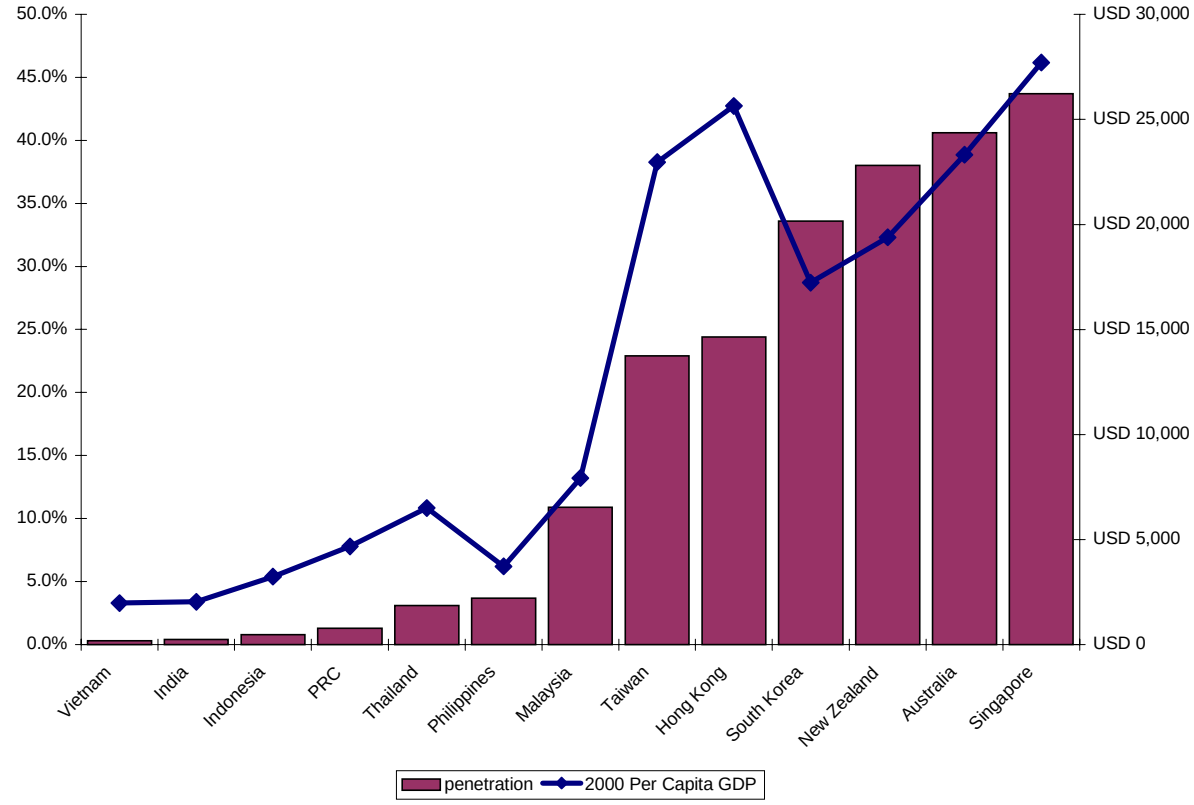
Figure 1 - Asia/Pacific (Excluding Japan) Internet Penetration and Per Capita GDP at PPP*



* Per Capita GDP is calculated at Purchasing Power Parity (PPP)
Source: IDC, 2001

Table 1 – Households with Personal Computer at Home by Monthly Household Income

Monthly household income (HK$)	No. of households ('000)	%	Rate*
<10,000	81.4	7.7	15.3
10,000 – 19,999	274.4	26.1	45.9
20,000 – 29,999	255.3	24.3	62.8
30,000 – 39,999	163.1	15.5	70.7
40,000 – 49,999	90.7	8.6	74.2
>= 50,000	186.2	17.7	82.8
Overall	1,051.1	100.0	49.7

Median monthly household income (HK$) 27,500

* As a percentage of all households in the respective monthly household income groups. For example, among all households with monthly household income of less than $10,000, 15.3% had PCs at home.

Source: Thematic Household Survey Report No. 2, page 23

Table 2 – Persons aged 10 and over who had used personal computer in the past 12 months by age and sex

	Male			Female			Overall		
Age group	No. of persons ('000)	%	Rate*	No. of persons ('000)	%	Rate*	No. of persons ('000)	%	Rate*
10 – 14	155.8	11.6	73.0	147.8	11.4	72.6	303.6	11.5	72.8
15 – 24	339.2	25.2	76.1	374.8	29.0	81.7	713.9	27.0	78.9
25 – 34	348.2	25.8	63.6	407.1	31.5	66.2	755.3	28.6	65.0
35 – 44	347.1	25.8	48.6	286.0	22.1	40.4	633.0	24.0	44.5
45 – 54	127.5	9.5	25.2	66.8	5.2	14.6	194.4	7.4	20.2
55 – 64	25.9	1.9	9.1	9.1	0.7	3.7	35.0	1.3	6.6
>= 65	3.6	0.3	1.0	0.8	0.1	0.2	4.4	0.2	0.6
Overall	1,347.3	100.0	44.1	1,292.4	100.0	42.0	2,639.7	100.0	43.1

* As a percentage of all persons in the respective age and sex sub-groups. For example, among all males aged 10-14, 73.0% had used PC in the past twelve months.

Source: Thematic Household Survey Report No. 2, page 46

Table 3 – Persons aged 10 and over who had used personal computer in the past 12 months by educational attainment

Educational attainment	No. of persons ('000)	%	Rate*
No schooling/kindergarten/primary	166.8	6.3	8.4
Secondary/matriculation	1,727.0	65.4	52.3
Tertiary	745.9	28.3	89.5
Overall	2,639.7	100.0	43.1

* As a percentage of all persons aged 10 and over in the respective educational attainment groups. For example, among all persons with tertiary educational attainment, 89.5% had used PC in the past twelve months.

Source: Thematic Household Survey Report No. 2, page 47

Table 4 – Persons aged 10 and over who had used personal computer in the past 12 months by activity status

Activity status	No. of persons ('000)	%	Rate*
Economically active	1,795.4	68.0	51.1
Economically inactive	844.3	32.0	32.3
Students	714.3	27.1	81.6
Retired persons	13.0	4.2	1.6
Home-makers	110.1	0.5	12.4
Others	7.0	0.3	15.4
Overall	2,639.7	100.0	43.1

* As a percentage of all persons aged 10 and over in the respective activity status groups. For example, among all economically active persons, 51.1% had used PC in the past twelve months.

Source: Thematic Household Survey Report No. 2, page 48

Appendix

Programme Ideas for Tackling Digital Divide for the Consideration of the SAR Government

A Infrastructure

1 Expand the portable computer loan scheme for secondary school students to cover participants of adult education and employee retraining programme.

2 Incentive programmes for vendors to offer special discounts for disadvantaged groups.

3 Continual support for computer recycling programmes.

4 Sufficient cyberpoints offering quality Internet access to the public.

5 Promote a competitive environment to encourage vendors developing alternative solutions so that the public might have more choices.

B Capacity Building

6 Continual IT awareness promotion programmes for disadvantaged groups.

7 Free computer training at various skill levels for the disadvantaged communities.

8 Financial support to organize volunteer groups to provide technical support and trouble shooting services to disadvantaged communities.

9 Training Coupon Programme for disadvantaged communities to acquire suitable computer training.

C Barrier-Free Design

10 Endorse, with the help of professional IT assications, code of practice for barrier-free design of websites.

11 Promote the use of proper server tools and applications contributing to barrier-free design. For instance, The Hong Kong Council of Social Service could become a social service sector virtual data center hosting all barrier-free websites for NGOs by adopting such applications.

12 Programmes to acknowledge websites which facilitate access of disadvantaged communities.

D Content

13 Provide support to establish vertical portal sites for different disadvantaged groups, such as elderly, people with disabilities, women, new arrivals and low-income families. The portals should provide personalization service and a forum for networking in the cyberspace.

Bibliography

[1] Planning Department - HKSAR, *Study on Sustainable Development for the 21st Century*, August 2000

[2] Census and Statistics Department – HKSAR, *Thematic Household Survey Report No. 2: Information Technology Usage and Penetration*, November 2000

[3] Ibid.

[4] Ibid.

[5] Hong Kong Council of Social Service, Survey on Computer Usage Pattern among the Seniors, 2000

Acknowledgement

IDC is a leading provider of technology intelligence, industry analysis, market data, and strategic and tactical guidance to builders, providers and users of information technology. It provides global research with local content through more than 600 analysts in 43 countries worldwide. It is a division of IDG, the world's leading IT media, research, and exposition company.

The HKCSS Information Technology Committee would like to thank IDC, Hong Kong for making avail the information on Asia/Pacific (Excluding Japan) Internet Penetration and Per Capita GDP at PPP as contained in Figure 1 for the purpose of this position paper.

The HKCSS Information Technology Committee, nevertheless, is responsible for interpreting and elaborating the information in this position paper.