

**For discussion
on 13 May 2002**

**Legislative Council Panel on
Information Technology and Broadcasting**

Digital Divide

Introduction

This paper briefs Members on the progress of the Government's measures and its plans in the coming year to drive the building of a digitally inclusive society in Hong Kong.

Background

2. Hong Kong is one of the most advanced economies in the Asia-Pacific region. Our IT development is in the forefront in the region. According to the results of the annual thematic household survey conducted by the Census and Statistics Department in April-June 2001, there was a significant increase in personal computer (PC) and Internet penetration rates in households, from 50% and 36% in 2000 to 61% and 49% in 2001 respectively. The PC and Internet usage rates were higher among higher income households, younger persons, better educated persons and students. There was no significant difference between the two sexes. However, the rates were still low among low-income households, less educated persons and elders. Our PC and Internet penetration/usage rates by household income, educational attainment and age group are tabulated at **Annex A**.

3. Although Hong Kong's PC and Internet penetration rates are comparable to other advanced economies (a comparison of Hong Kong's situation with its major trading partners is at **Annex B**), the Government is committed to building a digitally inclusive society so that different sectors of the community can benefit from IT development to enrich their life. To this end, we have formulated policies and implemented various measures to address the digital divide issue.

4. We briefed Members on our policies and measures at the Panel meeting on 14 May 2001. Representatives of various organisations also attended the meeting to express their views and make suggestions on how to address the issue. We then provided our detailed responses to their views and suggestions at the Panel meeting on 9 July 2001. A motion debate on "bridging the digital divide" was also held by the Legislative Council on 6 June 2001. Taking into account the views of Members and these organisations, we have been implementing a wide range of measures and spending some \$2.2 billion to drive the wider use of IT in the community. We have set out our policies and measures in a booklet "Building a Digitally Inclusive Society" published by the Information Technology Services Department (ITSD) in December 2001 (copies of the booklet have been distributed to Members). This paper reports to Members the progress of the measures we have taken and our initiatives in the coming year to promote IT awareness and strengthen the community's ability to exploit opportunities in a knowledge-based economy.

General Policies

5. Under the 2001 "Digital 21" Strategy promulgated in May 2001, we are committed to enhancing the community's awareness and knowledge of IT, promoting the wider use of IT in the community and improving public access to computer facilities and online services. We have implemented a wide range of measures and initiatives including enhancing the use of IT in education in primary and secondary schools, providing free computer facilities with Internet connection for public use, offering free IT awareness courses to the community, providing free e-mail accounts, enhancing web accessibility and making telecommunications services available at affordable prices.

6. For the disadvantaged persons, we encourage them to use IT through the provision of IT skills training and by making IT facilities readily accessible to them. For example, for people with disabilities, we recognize the potential of IT in enhancing their employability and enriching their lives and provide technology-assisted devices to increase their IT accessibility. We also encourage senior citizens to learn and use IT to enrich their lives.

Progress of Measures Taken

(a) Education and Training Initiatives

Information Technology for Learning in a New Era

7. We have been driving the use of IT in education in primary and secondary schools to eliminate the potential risk of digital divide in our future generation. The Education Department (ED) has been actively pursuing the 5-year “Information Technology for Learning in a New Era” strategy (1998-99 to 2002-03) to enhance the effectiveness of teaching and learning by harnessing the power of IT. This involves capital spending of \$3.2 billion and annual recurrent spending of over \$550 million.

8. We have targeted to use IT as the teaching medium for 25% of the school curriculum by the 2002-03 school year. As regards training for teachers, we have arranged about 85 000 training places to serving teachers during the 1998-99 to 2002-03 school years. Up to March 2002, all teachers have completed the “basic” level training, 12 000 teachers the “intermediate” level training, 3 800 teachers the “upper-intermediate” level training and 1 900 teachers the “advanced” level training.

Increasing the Number of Internet Connections for Schools

9. All schools are now linked to the Internet and over 90% of them are connected by leased line or broadband. Over 300 schools have installed optical fiber networks for their Internet access.

Improving Computer Access for the Under-Privileged Group

10. A sum of \$200 million has been allocated from the Quality Education Fund to secondary schools to buy notebook computers with free Internet access for loan to needy students. Moreover, the ED is providing an incentive grant to schools to encourage them to open up the computer facilities after school hours to students. In the 2001-02 school year, 1 041 schools have joined the initiative and received the incentive grant.

Professional IT Training for Secondary Students

11. We have collaborated with ten IT vendors to provide professional IT training to secondary students. These training programmes help students gain early exposure to the use of IT and prepare them for acquiring professional qualifications that are recognized internationally. The “train-the-trainer” approach is adopted and some 773 teachers, who will in turn train up their students, have received the professional IT training. We expect that over 20 000 students will benefit from these programmes in 2001-02 and 2002-03.

Vocational Education/Training and Employees Retraining

12. At the vocational level, the Hong Kong Institute of Vocational Education (IVE) of the Vocational Training Council (VTC) has offered about 5 800 IT training places up to sub-degree level in 2001-02. During the same period, the Information Technology Training and Development Centre (ITTDC) of the VTC has also provided about 12 000 training places under its IT skills upgrading courses for in-service personnel and IT conversion courses for non-IT university graduates.

13. Apart from the IT courses provided by the VTC, the Employees Retraining Board (ERB) provided about 40 000 short-term basic IT skills training places in 2001-02 to help trainees sustain their employment in a knowledge-based society.

14. Some 2 300 training places have also been provided under the IT Assistant Course in 2000-01 and 2001-02 to help trainees to take up IT jobs at the junior level. The course covers areas like basic IT skills, web content authoring, introduction to e-commerce, networking, etc.

IT in Adult Education

15. The ED runs Government evening schools for people aged 15 or above, offering formal primary and secondary education. Practical computer courses have been offered starting from the 2000-01 school-year.

16. In addition, the ED provides subventions to non-governmental organisations (NGO) to organise informal adult education courses. IT and computer courses are accorded priority in allocating subventions.

(b) Technology Diffusion in the Community

Affordability of Telecommunications Services

17. There are now over 250 Internet services providers providing broadband and dial-up Internet services. Given the keen competition, prices of broadband services have gone down significantly over the past two years. Currently, many service providers offer unlimited Internet usage at HK\$200 to 300 per month, while some offer services at even lower prices.

18. On 1 January 2003, the local fixed telecommunications market will be fully liberalized. We expect market competition will drive the network operators to further extend their network coverage, improve their services and reduce prices to an even more competitive level. In January 2002, there were more than 5.7 million mobile subscribers in Hong Kong. Keen market competition has also driven down the service prices substantially. For example, some service plans offer airtime usage of several hundred minutes at around HK\$100 per month only.

Free Access to IT Facilities

19. With the Community Cyber Points project and through subvention to NGOs, about 4 900 PCs with Internet connection for free use by the public are now provided at convenient locations including community halls/centres, District Offices, public libraries, post offices, government-subsidized organisations and other NGOs.

20. We have established the Super Cyber Centre with 100 PCs at the Canton Road Government Offices in Yaumatei. This centre provides a good venue for free access to IT facilities, resource materials and IT learning to the community. As of March 2002, the Centre has over 9 100 registered members and various organisations have conducted around 400 training classes there since its opening in June 2001.

21. The Social Welfare Department (SWD) has secured a Lotteries Fund grant of \$9.5 million for installing 284 sets of PCs with Internet connection at 213 social centres for the elderly, 35 multi-service centres for the elderly operated by 81 NGOs and one social centre for the elderly operated by the SWD.

22. With the support from the Lotteries Fund, the SWD has set up 538 PCs with Internet connection in 462 rehabilitation service units run by 69 NGOs and the SWD in December 2001 for people with disabilities. Additional facilities like Braille display, screen enlargement software, and voice synthesising software are provided for those service units serving the visually impaired persons, while assistive devices like touch screen, various keyboard modifications and pointer devices, and other environment adaptations are provided for those with spastics or cerebral palsy. For those service units serving other disability groups, devices such as touch screen and trackball are provided to facilitate their access to computers. In addition, the Super Cyber Centre and 24 public libraries also provide PCs with similar software for the visually impaired.

Personal Computers for People with Disabilities

23. The SWD has established a \$1 million Central Fund for Personal Computers to assist people with disabilities to set up PC workstation at home so as to help them find and sustain an income-generating job. To further extend the scheme, an additional \$3 million has been injected from the Lotteries Fund into the Central Fund. Up to March 2002, 101 applicants have received financial support amounting to \$1.49 million from the Central Fund.

24. With the support from charitable funds and their own resources, some NGOs have set up funding schemes, for example, the Employaid Scheme managed by the Hong Kong Society for Rehabilitation and the Independent Living Fund established by the Association for Engineering and Medical Volunteer Services, to provide technical advice, support and grants/loans to people with disabilities for the purchase of computer equipment and devices so as to enable them to lead a more independent life.

25. We support the initiative of donating used PCs to people who are in need but cannot afford to purchase their own computers. We are now launching a campaign for the donation of used PCs which are surplus to Government bureaux and departments to the computer recycling programmes run by the Hong Kong Council of Social Service and the Hong Kong PHAB Association. We anticipate that the donation can be carried out in the third quarter of 2002.

(c) Knowledge and Awareness

IT Hong Kong Campaign

26. In September 2000, the Government launched the “IT Hong Kong” campaign to promote the awareness of IT in the community. The campaign includes the provision of free IT awareness courses to all sectors of the community, the organisation of district activities, the establishment of an “IT Hong Kong” website, and the recruitment of IT pioneers.

27. So far about 20 000 people have attended the IT awareness course offered by the Home Affairs Department (HAD) for housewives, new arrivals and the general public. The ITSD and ED have also organised IT appreciation programmes for parents so as to improve their communication with their children on IT issues. Over 500 IT appreciation classes have been arranged for 11 000 parents and students in 2001-02. In addition, an educational VCD has been produced to enable parents to understand the basics of IT and to guide their children on the proper use of IT. Over 480 000 copies of the VCD have been distributed.

28. The SWD launched a 3-year IT Awareness and Training Programme for people with disabilities starting in October 2001 to provide a series of free training sessions to 600 IT trainers and 15 000 people with disabilities. The training focused on various themes in PC usage and Internet applications to facilitate people with disabilities to use IT in their daily lives. The course structure and delivery model of these training sessions are tailor-made to cater for the distinctive needs of various disability groups including the physically handicapped, mentally handicapped, visually impaired, hearing impaired, ex-mentally ill and chronically ill.

29. We also work very closely in collaboration with various non-government organizations (NGOs) in implementing this initiative. With a Lotteries Fund grant of \$900,000, the SWD has financed six NGOs to run 301 classes of IT Awareness Training Programme for 6 345 senior citizens and 28 classes of IT Training Programme for Trainers of Elders for 651 volunteers and staff in 2001-02.

30. The Lotteries Fund and the Hong Kong Jockey Club Charitable Trust have provided support to the Association for Engineering and Medical Volunteer Services to set up an “Interactive Computer Training Net for Mentally Handicapped Persons”. This portal provides a comprehensive training package in self-care ability and domestic skill, communication skill, community living skill, vocational skill, cognitive and motor function, sex education and health issues, etc. to the mentally handicapped persons.

31. We have also partnered with various NGOs and IT industry bodies to organise activities to enhance the IT awareness of the community. To make the best use of the limited resources available, IT volunteers have been recruited and trained to help providing IT service to the community, such as conducting IT awareness training courses in the 18 districts and the social centres/multi-service centres for the elderly, conducting computer talks at public libraries and organising IT summer camps for youngsters.

Establishing a Digital Culture

32. With the support of the Quality Education Fund, the ED has rolled out the HK Education City web site to promote a proper online culture. The HK Education City has launched a “Digital Age Cultural Campaign” to promote among teachers, parents, students and members of the public the habit of reading, learning and sharing with others on communication and the best use of technology to improve their work and life. Coupled with the learning activities, students will become habitual IT users in accomplishing learning tasks in schools and job-related tasks in their future careers.

(d) Access to Online Services

33. To enable the visually impaired to access online public services, we adopt internationally recognised web accessibility guidelines in the design of Government web pages. At present, the design of the Electronic Service Delivery (ESD) web site and the web sites of 88 government bureaux and departments already conform to the guidelines. We expect that all Government web sites will conform to the guidelines within 2002. The ESD scheme also supports a variety of electronic payment methods to meet the different needs of users.

34. We have been working with the Equal Opportunities Commission, industry organisations, local universities and user groups such as the Hong Kong Blind Union, the Hong Kong Society for the Blind and the Hong Kong Retinitis Society to promote the community's awareness of web accessibility. We have also collaborated with the Internet Professionals Association and sponsored it to launch the Web Care Campaign to promote the design of barrier-free web sites to the private sector. Three seminars on web accessibility were conducted in 2001-02. A Web Care Award has been set up to give recognition to those web sites that conform to the barrier-free web site design guidelines. So far, over 60 web-sites from various organizations including banking and financial institutions, management services companies, insurance companies and public services bodies have been enrolled for the Web Care Award.

35. The SWD has also sponsored NGOs to enhance their web sites to facilitate people with visual impairment to browse through these web pages by various assistive tools.

36. The six mobile operators launched the inter-operator short message service (SMS) in December 2001. This is a very convenient data service, especially to people with hearing disabilities. Through the efforts of the Office of the Telecommunications Authority (OFTA), four mobile operators have already provided concessionary service packages to the hearing impaired.

37. To assist those who do not have credit card for making payment for subscribing to Internet service, the OFTA has successfully persuaded major ISPs to accept payment in cash or by cheque so that those without credit card would not be denied from obtaining Internet service.

Future Plan

38. In 2002-03, the Government will spend some \$677 million to further promote IT awareness and encourage the wider use of IT in the community. Our measures and initiatives are outlined in subsequent paragraphs and a summary of the expenditure involved is at **Annex C**.

Annual Surveys on PC and Internet Penetration

39. We will continue to monitor the IT adoption in Hong Kong through annual surveys. The 2002 annual survey on IT penetration and usage in households will be conducted in May to July this year and the results are expected to be available in the last quarter of the year.

Education and Training

40. The ED will further encourage more schools to make their computer facilities available to students after normal school hours through the provision of incentive grants. It will also continue to arrange professional IT training for secondary school students in collaboration with IT vendors.

41. In 2002-03, the IVE of the VTC will provide about 6 400 IT training places up to sub-degree level while its ITTDC will provide about 14 000 training places in IT upgrading and conversion courses. In addition, the ERB will provide about 48 000 part-time IT courses. For the IT Assistant Course, we plan to provide 1 000 training places each year from 2002 to 2005.

Technology Diffusion in the Community

42. We will continue with the Super Cyber Centre and the Community Cyber Points projects to provide free computer facilities for public use. We are exploring the establishment of cyber centres at regional or district level in phases to cope with the increasing public demand for free access to IT facilities. About 20 to 30 PCs with Internet connection will be provided at each centre for free use by the local residents. We aim to set up the first such centre at Tin Shui Wai in Yuen Long in 2002-03. We are exploring sites to set up similar centers in other parts of the territory.

43. All NGOs operating rehabilitation service will be equipped with personal computers and broadband or modem dial-up access to the Internet starting from 2002-03 to provide people with disabilities with free access to PC and the Internet. Financial assistance will be provided to people with disabilities to purchase personal computers and relevant assistive devices through the Central Fund for Personal Computer so that they can work independently.

44. The HAD will install additional assistive software at Community Cyber Points designed for use by the visually impaired and explore the provision of additional assistive software such as text-to-speech (Cantonese) translation software at some Community Cyber Points to enhance access to web site information by the visually impaired. Also, the ITSD will explore the development of text-to-speech translation service for Government web sites to further enhance their accessibility.

Knowledge and Awareness

45. We will continue to organise the “IT Hong Kong” campaign in 2002-03. Under the campaign, we will offer some 13 500 training places in our IT awareness programme to housewives, new arrivals, parents and the general public. Documentary television programmes will be produced to promote IT in the community. We will also maintain up-to-date information in our IT Hong Kong web site to promote the wider use of IT.

46. The SWD will continue with the IT Awareness and Training Programme for the People with Disabilities, under which 200 places for trainers and 4 000 places for people with disabilities will be provided in 2002-03. In addition, 4 200 awareness course training places will be provided to senior citizens.

47. The Information Technology and Broadcasting Bureau and the ITSD, in partnership with the Hong Kong Computer Society, will launch a community IT user support service, called “IT Easy Link”, in June 2002. The service will provide members of the community with advice on general problems that they may encounter when using basic IT applications such as word processing, file management, spreadsheet, presentation and Internet and e-mail operation. Enquiries can be made by phone, fax or e-mail. A web site will also be maintained with frequently asked questions posted on it for reference by the general public.

48. The Leisure and Cultural Services Department (LCSD) will sponsor the Hong Kong Computer Society and the Pegasus Social Service Christian Organisation to deliver computer talks and IT training to adults, housewives and senior citizens at 11 public libraries with computer training centres.

49. In mid 2002-03, the SWD will launch a portal for people with disabilities to disseminate information on support services for this group, provide chat room facility and facilitate on-line registration of computer courses.

Access to Online Services

50. We will continue to enhance Government web sites within 2002 to bring all of them in compliance with our internal web accessibility guidelines, which have been developed based on the internationally recognised “Web Content Accessibility Guidelines” and with input from the Hong Kong Blind Union.

51. In 2002, we will provide a simplified Chinese character version of Government web pages to facilitate browsing by the new arrivals from the Mainland, as well as the Chinese communities in other parts of the world.

52. The SWD will continue providing free Internet access at the existing social centres and multi-service centres for the elderly with funding support from the Lotteries Fund.

Conclusion

53. Digital divide exists in every economy, including advanced economies, though in different forms and to different extent. The Government is determined to build a digitally inclusive society in Hong Kong and has partnered with professional associations and NGOs to implement measures to strengthen the capability of the community to explore the opportunities in the digital world. We will continue to monitor the situation of digital divide and review our measures in addressing the issue.

Information Technology Services Department
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PC and Internet Penetration/Usage in Hong Kong

A. By Household Income

Monthly household income (HK\$)	PC Penetration Rate (%)		Internet Penetration Rate (%)	
	2001	2000	2001	2000
below 10,000	22.8	15.3	14.5	7.7
10,000 – 19,999	58.3	45.9	42.9	29.5
20,000 – 29,999	76.2	62.8	61.3	46.7
30,000 – 39,999	82.9	70.7	69.5	55.9
40,000 – 49,999	86.1	74.2	76.8	60.2
50,000 or above	89.5	82.8	82.7	71.5
Overall	60.6	49.7	48.7	36.4

B. By Age Group

Age Group	PC Usage Rate (%)		Internet Usage Rate (%)	
	2001	2000	2001	2000
10 – 14	90.8	72.8	79.4	43.1
15 – 24	88.0	78.9	81.1	64.5
25 – 34	73.6	65.0	65.1	48.1
35 – 44	52.0	44.5	42.3	28.3
45 – 54	26.2	20.2	19.6	11.5
55 – 64	8.80	6.6	6.0	3.2
65 or above	1.20	0.6	0.8	0.2
Overall	50.3	43.1	43.3	30.3

C. By Educational Attainment

Educational Attainment	PC Usage Rate (%)		Internet Usage Rate (%)	
	2001	2000	2001	2000
No Schooling/ Kindergarten/ Primary	14.3	8.4	11.1	3.3
Secondary/ Matriculation	60.0	52.3	50.1	34.4
Tertiary	91.1	89.5	86.9	78.5
Overall	50.3	43.1	43.3	30.3

IT Penetration in Hong Kong and Its Major Trading Partners

	Survey Period	PC Penetration Rate (%)#	Internet Penetration Rate (%)#	Source
Hong Kong	04-06.2001	61%	49%	Census & Statistics Department
Australia	11.2000	56%	37%	Australian Bureau of Statistics
Japan	02.1999–02.2000	41%	27%	Prudential Japanese Consumer Confidence Survey
Korea	2001	54%	40%	National Statistical Office of Korea
Singapore	12.2000	61%	50%	The Infocomm Development Authority of Singapore
USA	08.2000	51%	42%	US Department of Commerce

As a percentage of all households in the respective economies.

Digital Divide Programme Spending in 2002-03

Items	Responsible bureaux/ departments/agencies	Estimated expenditure (\$ million)
<i>Education and training</i>		
<ul style="list-style-type: none"> To encourage schools to make their computer facilities available to students after normal school hours by the provision of grants 	Education Department (ED)	18.00
<ul style="list-style-type: none"> To collaborate with the industry in providing professional IT training to secondary school students 	Information Technology and Broadcasting Bureau (ITBB), Information Technology Services Department (ITSD), ED	0.10 (sponsorship from the industry not included)
<ul style="list-style-type: none"> To organise IT vocational training programmes 	Vocational Training Council	545.20
<ul style="list-style-type: none"> To organise IT training programmes 	Employees Retraining Board	59.00
<i>Enhancing access to IT facilities</i>		
<ul style="list-style-type: none"> To continue with the Super Cyber Centre and Community Cyber Points projects, etc. to provide free computer facilities for public use 	Home Affairs Department (HAD), Social Welfare Department (SWD), Leisure and Cultural Services Department (LCSD), Post Office	13.69
<ul style="list-style-type: none"> To set up a district cyber centre in Yuen Long 	HAD	1.65

<ul style="list-style-type: none"> To install computer facilities and provide free Internet access for rehabilitation units 	SWD	14.00
<ul style="list-style-type: none"> To provide financial assistance from the Central Fund for Personal Computers to people with disabilities for purchasing computer facilities so that they can work independently 	SWD	1.00
<ul style="list-style-type: none"> To install additional assistive software at Community Cyber Points designed for use by the visually impaired 	ITSD, HAD	0.48
<i>Raising knowledge and awareness</i>		
<ul style="list-style-type: none"> To continue with the “IT Hong Kong (ITHK)” campaign including producing television programmes and updating information on the “ITHK” web site to promote the wider use of IT 	ITBB, ITSD	1.55
<ul style="list-style-type: none"> To organise IT awareness courses for housewives, new arrivals, parents and the general public 	ITBB, ITSD, HAD	1.65
<ul style="list-style-type: none"> To provide IT awareness courses for people with disabilities and train the trainers 	SWD	2.90
<ul style="list-style-type: none"> To launch the “IT Easy Link” service in partnership with the Hong Kong Computer Society 	ITBB, ITSD	2.50

<ul style="list-style-type: none"> • To organise talks on computer awareness in public libraries 	LCSD	0.90
<ul style="list-style-type: none"> • To set up a portal for people with disabilities, providing information on support services for people with disabilities, chatroom facility and on-line registration of computer courses, etc. 	SWD	0.50
<ul style="list-style-type: none"> • To improve Government web sites to enhance web accessibility for people with disabilities 	Home Affairs Bureau, ITSD, Information Services Department	2.30
<ul style="list-style-type: none"> • To provide a simplified Chinese character version of Government web pages 	ITSD	9.96
<ul style="list-style-type: none"> • To provide free Internet access for elderly service units 	SWD	1.65
	Total	677.03