.hk

Hong Kong

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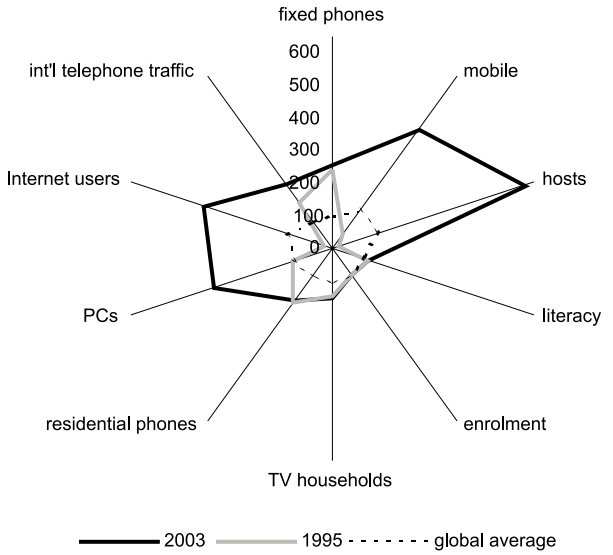

Source: *Monitoring the Digital Divide*. © Orbicom 2004

Overview

The digital access index released by ITU in November 2003 ranked Hong Kong seventh overall among 178 economies, second in the Asia-Pacific region. Hong Kong fared particularly well in terms of Internet affordability: with its Internet cost being only 0.19 percent of per-capita income, it provides the most affordable Internet access in the world. Hong Kong has 14.6 broadband subscribers per 100 inhabitants, placing it second after South Korea among the 178 economies assessed. It was ranked fifth in the world in mobile penetration, with 91.6 subscribers per 100 inhabitants. The latest figure (September 2004) provided by the Office of Telecommunications Authority was 117 mobile subscribers per 100 inhabitants.

Being mainly a service-oriented economy, Hong Kong has a strong dependency on international trade and commerce. Connection to the global economy via the application of ICT is considered a way to sharpen Hong Kong's competitive edge. The government in its Digital 21 policy paper describes ICT as a basic infrastructure of an information society. It believes that ICT should provide the foundation for creativity, e-government as well as economic expansion and transformation. To this end, the government's efforts in harnessing the power of ICT were obvious in 2003–2004. All sectors of the telecommunications market were liberalised from 1 January 2003 to encourage competition and provision of services at affordable prices. Four 3G licences were issued in October 2001, and 3G services were rolled out in January 2004. Hong Kong was among the first group of economies in the world to open up the relevant frequency bands for wireless services based on the IEEE 802.11 standard. Amendments to the Electronic Transactions Ordinance were introduced in June 2003 to ensure an up-to-date legal framework for e-business. By end 2003, 90 percent of public services amenable to electronic delivery became available online, with some 180 public services from over 50 government departments and public agencies being offered via the Electronic Services Delivery Scheme. In addition, over 80 percent of government procurement tenders were conducted through electronic means. Moreover, the government rolled out a major IT project in June 2003 – the multi-application smart identity card for Hong Kong citizens. The card can store a digital certificate, serve as a public library card and be used for automated immigration clearance at border control points. It will also serve as a driving licence in 2006.[1]

Since 2001, the government has been conducting annual thematic household surveys on the penetration and usage of IT. According to the 2004 survey,[2] 71.1 percent of households had PCs compared to 67.5 percent the previous year, while 64.9 percent of households with PCs (excluding palmtops and PDAs) were connected to the Internet compared to 60.0 percent the year earlier. Out of the population aged 10 years and older, 61.3 percent had knowledge in using PCs and 59.5 percent reported that they had used a computer in the past 12 months. This population, totalling 3.67 million people, reported spending an average of 27.1 hours per week on the computer.

The take-up of e-commerce remained low. Only 14.4 percent of those aged above 15 years had made use of e-commerce for personal transactions in 2004, recording a slight increase from 13.1 percent in 2003. Likewise, the level of online purchasing activities remained low at 7.1 percent among those aged 15 years and older, achieving only a 0.1 percent increase from 2003. And for those transactions that actually took place, the median spending was HK$580 (US$1 = HK$7.8), 54.2 percent of the transactions being ticket reservations.

Despite government efforts in promoting e-government and e-services, only 28.5 percent of persons aged 15 and older had used online government services for personal transactions in 2004, compared to 24.3 percent in 2003. On the other hand, the promotion of digital certificates seems more effective, with the proportion of computer users aged 15 years and older who had digital certificates rising almost fourfold from 3.4 percent to 12.4 percent. Conceivably, the rise could be related to the offer of a one-year free digital

certificate to citizens when they swap their old identity cards for smart cards. Out of those who had acquired a digital certificate, only 23.5 percent, or 98,000 people, reported that they had actually used it.

Digital divide

According to the 2004 household survey cited earlier, Hong Kong has made significant progress in computer and Internet penetration. The proportion of households with PCs had increased from 34.5 percent in 1981 to 60.6 percent in 2001 and 71.1 percent in 2004. Similarly, the proportion of households with Internet access had grown from 11.8 percent to 48.7 percent and 64.9 percent, respectively.

As we move towards an information society, and as computer literacy increases, those who have limited access to computer technology or who are slow in catching up with the trend will become even further marginalised. The magnitude of the digital divide in Hong Kong has partially been revealed in the same household survey report. Some 645,600 households did not have PCs at the time of enumeration, their main reason being "did not know how to use computer", as cited by 58.6 percent of the households without PCs. This was followed by "no specific application" (46.1 percent). The digital divide exists between age groups, genders and income groups.

It is obvious from user data that computer penetration dips with increasing age. The 2004 household survey discloses that the proportions of computer users in the age groups 10–14, 15–24, 25–34, 35–44, 45–54 and 55–64 were, respectively, 98.1, 97.2, 87.5, 70.3, 42.6 and 23.3 percent. Those aged 65 years and over scored a mere 4.8 percent. The high computer penetration in the 10–14 age group could be due to the government policy of providing computer equipment to all primary and secondary schools. By 2002, the government had spent an accumulated amount of HK$0.9 billion in computerising schools.[3]

Even senior citizens are slowly catching on, with the computer penetration rate improving from 17.9 percent to 23.3 percent between 2003 and 2004 for the 55–64 age group and from 2.5 percent to 4.8 percent for those aged 65 and older.

The same survey indicates that gender disparity in the younger generations, especially in the first three age brackets, was not very wide. For those aged 15–24, there were even slightly more computer users among the females (97.8 percent) than among the males (96.6 percent). However, the gender disparity among those 65 years and older was marked (6.8 percent for males and 3.0 percent for females), which was probably related to the low literacy rate of elderly women.

There seems to be a strong association between income disparity and the digital divide. The percentage of households with Internet access had increased across all household income groups between 2003 and 2004. What had not changed, however, was the fact that households with monthly income below HK$10,000 were far less likely to have Internet access at home, with rates of 28.8 percent (2003) and 39.3 percent (2004), far below the overall rates of 60.0 percent and 64.9 percent, respectively.

According to World Bank data for 2004,[4] Hong Kong is affected by very severe income inequality, with an income gap that is among the widest across developed countries. GDP per capita grew from HK$92,221 to HK$192,465 between 1981 and 2001, while the Gini coefficient, an indicator of income disparity, rose from 0.451 to 0.525.[5] Over the same period, computer penetration increased from 34.5 percent to 60.6 percent. As the economy develops, and ICT take-up increases, the hope that IT could help to narrow the income gap has so far not been realised; instead the gap has widened.

As schools move towards online delivery of after-school education, which requires preparation and submission of homework online, kids in low-income families, which cannot afford computers and Internet access, are put at a disadvantage. Whether this handicap will raise the chances of inherited poverty and continuation of the digital divide to the next generation is still not known. Clearly, the severity and implications of this phenomenon have to be determined.

In fact, the full picture of the digital divide in Hong Kong is obscured. The extent to which disadvantaged groups in society are benefiting from ICT development remains unknown. The household survey reports, for instance, do not include specific data on people with disabilities, single parents (who are mostly homebound), children from low-income families, and new arrivals to Hong Kong. The government is commissioning a digital inclusion study in an attempt to fill this knowledge gap by measuring how specific groups in society have been "included" in this evolving information society. The research is expected to be completed by end 2005 or early 2006.

Digital inclusion programmes

By 2002, the government had spent a total of around HK$2.2 billion in bridging the digital divide.[6] Building the ICT infrastructure for the general public accounted for HK$918 million, the highest among the various components, while that for specific disadvantaged groups amounted to HK$304 million. ICT-related training and education for the general public accounted for HK$727 million, while that for specific disadvantaged groups accounted for HK$226 million. Spending on promoting web accessibility was the lowest, accounting for HK$4.2 million only. In fact, the accumulated total of HK$2.2 billion amounted to less than 1 percent of total government expenditure (HK$238.6 billion) for year 2001/2002.

Clearly, the efforts had skewed towards the provision of infrastructure and training. Issues such as content development, promotion of usage and accessibility, and

capacity building for sustaining the use of ICT by disadvantaged groups have not received much attention. In 2003–2004, there were more attempts to fill those gaps, such as exploring the use of speech technology to increase website accessibility, establishing a general technical helpline for the general public, and providing recycled computers to the disadvantaged. NGOs and professional bodies in the IT sector have been experimenting with digital inclusion programmes since 1999. Most of them face financial difficulty in sustaining their activities. The following are some of the programmes.

Computer recycling

Caritas and the Salvation Army, the largest PC recyclers in the community, aim to recycle 3,000 PCs per year. The software licences for these PCs are donated via the coordination of the Hong Kong Council of Social Service (*http://itrc.hkcss.org.hk/services/other_project/CoLFO_e.asp*). Recipients of these computers are low-income families, senior citizens, and other people with special needs.

Virtual community for senior citizens

The Hong Kong Cyber Senior Network Association (*http://cybersenior.org.hk*) was formed in 2001 and has since grown rapidly into a virtual place for senior computer users to congregate. It provides a free webmail service for members, hosts their personal websites, offers a discussion forum on various topics and is also a rich source of information on the aged.

Free technical helpline

IT Easy Link (*http://www.iteasylink.org.hk/aboutus.htm*) was established in 2002 as a community service of the Hong Kong Computer Society to encourage computer usage among the general public, especially the disadvantaged. Research indicates that one hurdle to, for instance, the elderly using computers is the lack of support when facing computer problems.[7] The programme is fully funded by the government and provides a high level of professional service to the public. Funding, however, is going to cease sometime in 2005, thus the programme needs to transform itself into a more community-based activity in order to survive.

Promotion of accessibility

The Webcare programme (*http://www.iproa.org/webcare*) organised by the Internet Professional Association contains two parts: providing a unified Internet training programme for people with special needs and accrediting commercial websites for their accessibility.

In 2004, the government supported a community initiative to establish a Digital Solidarity Fund (*http://www.hkcss.org.hk/dsf*) to help finance digital inclusion programmes. The fund aims to promote tripartite cooperation between the commercial sector, the government and NGOs and to form a platform upon which longer-term strategies to tackle the digital divide could be discussed and implemented. Initial contributions from the government and the commercial sector have been received, and a multi-sectoral management committee has been formed to manage the use of the fund.

ICT and sociopolitical development

During the miserable mid-2003, Hong Kong was like a cursed city. The outbreak of SARS claimed a few hundred lives, led to travel restrictions and brought another downturn to an economy which had not yet recovered fully from the dotcom bubble burst. Subsequently, Hong Kong went through a period during which political issues, one after another, hit the headlines. Civil society, via the use of ICT, has become a more active participant in shaping the social agenda. Professional associations, community groups, scholars, researchers, social workers, NGOs and their constituencies are all keen to make their voices heard even more clearly in cyberspace. The social value of ICT has not only been acknowledged but raised to a new height as well.

Healthcare and ICT

Videoconferencing technology played an important role during the SARS outbreak.[8] 3G services had not been launched in Hong Kong at that time. Travel restrictions led to increased use of videoconferencing by businesses and hospitals. SARS being a highly infectious disease had necessitated controlled hospital access, and video-conferencing enabled the major hospitals to maintain a degree of engagement with the community, and for patients with their families. The technology also allowed counselling and other support services to take place for the benefit of the patients' families and the community. All these services were made available via special sponsorships, IT professional groups and support from a range of civil society organisations.

The contribution of GIS technology was also obvious during the SARS epidemic. Mapping and GIS are important tools for identifying environmental factors and possible causes of contagious diseases and for mapping health information and visualising the relationship between spatial graphical data and virus distribution. Web-based GIS also makes it possible to disseminate timely information not only to the local population but also to a global audience. Locally, GIS was used to track the spread of the epidemic and the location of suspected cases.[9] A collection of high-quality GIS websites was developed to provide researchers and the

public with such information, mostly with the help of civil society and commercial organisations.

Following the epidemic, the Centre for Health Protection, established under the Department of Health, unveiled an electronic disease-reporting system that will allow medical personnel to rapidly transmit patients' symptoms and video images to the centre's headquarters.[10] Meanwhile, there have been discussions regarding the integration of the medical records of public and private healthcare systems for the public good. One of the major hurdles is the financing of the infrastructure for private hospitals and clinics. Of paramount concern is how to use electronic means more efficiently in combating health problems in this modern and congested city.

Political development and ICT

On 1 July 2003, around 500,000 Hong Kong citizens took to the streets demanding their political rights. Research indicated that around half of those demonstrators were motivated by information coming from the Internet or were encouraged by email forwarded by friends.[11] More than 80 percent of the respondents of the web-based survey, whose sampling frame would probably be Internet biased, reported that they frequently exchanged community information, shared news and political jokes, and commented on public affairs over the Internet. It seems that for the computer-literate in Hong Kong, Internet exchanges have replaced discussions at community halls and residents' associations. They have also enhanced the power of the interpersonal network in promoting political participation. Such power has been demonstrated in events such as the peace rallies held in 2003 and 2004, the Protection of Victoria Harbour Movement,[12] the debate about the methods for selecting the Chief Executive of Hong Kong, and the campaigns for the 2004 Legislative Council election. Web radio stations also constitute an emerging trend in Hong Kong. Hi-Radio (*http://www.hiradio.net*), People's Radio Hong Kong (*http://www.prhk.org*) and Radio 45 (*http://www.radio-45.com*), for example, all provide content that is not carried by the mainstream media.

Concluding remarks

Hong Kong will continue to be a major consumer and developer of ICT within Asia Pacific and globally. ICT has already become a necessity for the operation of the government and most businesses. It will continue to permeate the daily lives of citizens and will eventually develop to the extent that its deprivation will be considered unjust. To tackle the digital divide, two urgent needs should be addressed.

First, there is inadequate information about how specific disadvantaged groups are experiencing ICT. The general household surveys do not provide details of how people with disabilities, for instance, are accessing ICT. Moreover, having computers installed at home does not necessarily mean that family members with special needs (e.g. the elderly, people with disabilities) have access to ICT. More in-depth information is therefore required in designing suitable digital inclusion programmes. The government's planned large-scale study on the digital inclusion level in Hong Kong will hopefully provide the much-needed insights.

Second, there is a need to inculcate a cultural change in the design and implementation of social policies to take into consideration across the board of the need to tackle the digital divide. For example, ICT is not acknowledged by the social security system as basic expenses. Also, broadband providers accept only credit-card payments, deterring low-income citizens and some elderly persons without credit cards from obtaining broadband access, even if they could afford it. These are issues that call for the concerted efforts of the government (the regulator), businesses (the providers) and civil society (for the users) to address them.

Notes

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