

**For discussion on
16 February 2016**

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

Promotion of Digital Inclusion

Purpose

This paper briefs Members on the progress and latest position of the Government's initiatives to promote the adoption of information and communications technology ("ICT") by underprivileged groups, and seeks Members' views on the proposal to extend the Internet Learning Support Programme.

Background

2. Hong Kong is a mature digital economy with a world-class ICT infrastructure that supports reliable, fast, and affordable Internet service. ICT products and services are developing rapidly, bringing convenience in many aspects of our daily lives, including education, business, entertainment, health care, government services and social interactions. People from all walks of life should have equal opportunity to use ICT and acquire digital literacy skills, so as to fully integrate with the digital society. However, following the rapid development of technology, some people, including the elderly and the underprivileged groups, are vulnerable to digital exclusion. Therefore, the Government has actively promoted digital inclusion ("DI") to achieve the vision of "empowering everyone through technology".

3. The social and economic impacts of an ageing population have become a global issue, and Hong Kong is no exception. In Hong Kong, the population of elderly persons aged 65 or above as at mid-2015 stands at 1.1 million¹, representing about 16% of the total population, and is projected to rise to one in three by 2041².

¹ Source: provisional figures of mid-2015 population estimates (excluding foreign domestic helpers), Census and Statistics Department.

² Source: Hong Kong Population Projections 2015 – 2064, Census and Statistics Department.

4. One of the work priorities of the Innovation and Technology Bureau (“ITB”) is to promote the adoption of innovation and technology to address social issues (such as serving the elderly and underprivileged groups), including the promotion of DI.

Progress

5. Over the past few years, we have implemented various DI initiatives that benefited the elderly and different underprivileged groups. Details are set out in the ensuing paragraphs.

(I) DI Mobile Applications

6. Since 2012, we have launched two rounds of funding schemes to provide funding support for non-governmental organisations (“NGOs”) to develop mobile apps that address the special needs of individual target group and bring convenience to their daily lives. A total of 12 mobile apps have been funded and developed, benefiting the elderly, persons with disabilities, children with special education needs and ethnic minorities. These mobile apps are well-received by the target groups with over 56 000 downloads. Details of these apps are set out at **Annex A**.

7. In November 2015, we launched the third round of the funding scheme. We aim to complete the assessment in March 2016 for the successful applicants to start the development of their mobile apps proposals.

(II) Web Accessibility Campaign

8. Promoting web accessibility is another key initiative of DI. It enables people with disabilities to perceive, understand, navigate and interact with the web. In the past few years, we have been actively facilitating different sectors in Hong Kong to adopt web accessibility design for their websites and mobile apps, so as to facilitate persons with disabilities or the elderly to easily access online information and services.

9. Since 1999, all government websites have been required to adopt the web accessibility principle. In 2012, we required all government websites to meet the more stringent requirements under Level AA standard of the Web Content Accessibility Guidelines Version 2.0 promulgated by the World Wide Web Consortium (“W3C”). As at end of

2015, among the 465 government websites, 458 have been enhanced to meet the W3C Level AA standard, representing 98% of the total. The remaining 7 websites are being revamped to conform with this standard with a view to providing alternative solutions for persons of different disabilities to access the website contents. For instance, websites should be able to work with screen readers and screen magnifiers, and use colours that are visible to persons with colour blindness, so that persons with visual impairment can obtain the online information; all audio contents on websites should have text transcript or subtitles to ensure that hearing-impaired persons can obtain the information transmitted through sound.

10. All websites of statutory and public sector organisations are equipped with web accessibility functions. 57% of which have conformed to the more stringent international standards or guidelines, such as Level AA standard of W3C.

11. We have promulgated best practices for website and mobile apps development to both private and public sectors, and prepared a guide for preparation of procurement specifications for accessible websites. Since 2012, we have been co-organising four rounds of the Web Accessibility Recognition Scheme with the Equal Opportunities Commission. We provide participating organisations with free assessment and advisory services to help them understand and meet the relevant technical requirements. We also offer recognition and commendation to the participating organisations for attaining the web accessibility standards. In the third round of the recognition scheme concluded in April 2015, 199 accessible websites and 45 mobile apps were awarded. The number of participating organisations in the third round recorded a three-fold increase from the first round. Results of the fourth round will be announced in April 2016.

12. Currently, there is no single tool in the market that meets the needs of different target groups for web accessibility. To facilitate wider adoption of web accessibility design, we will collaborate with the industry and the academia to develop innovative solutions to evaluate accessibility compliance more effectively and practical tools to transform websites into accessible version in a comprehensive and automatic manner.

(III) ICT Outreach Programme for the Elderly

13. We have been coaching and encouraging the elderly to use ICT to broaden their social circles and improve their quality of life through different computer literacy programmes and award schemes. With increasing public awareness of ICT, the use of Internet among the elderly persons aged 65 or above has significantly increased from 3.0%³ in 2004 to 35.9%⁴ in 2015.

14. Through the ICT Outreach Programme for the Elderly, we arrange volunteers to reach out for institutionalised elderly people at elderly care homes to provide computer training, and arouse their interests in ICT through digital games and communication software. The programme has also successfully reached out to some “hidden” elderly and encouraged them to participate in the programme and visit elderly centres for using digital devices, and continue to visit the centres even after completion of the project. In addition, some participating elderly centres as well as family members understand that ICT activities can improve the quality of life of the elderly, especially for those with limited mobility. Therefore, they have purchased their own digital devices for the elderly persons’ continued use. A new round of 12-month programme was launched in July 2015 to extend the programme to elderly persons receiving day care centre services and home care services. As at December 2015, we have visited 49 residential care homes and day care centres and reached out to 1 300 seniors . A summary of the achievements of the programme is set out at **Annex B**.

(IV) Internet Learning Support Programme

15. The Finance Committee of the Legislative Council approved funding of \$220 million in May 2010 to support students with limited means to learn through the Internet. Since July 2011, we have implemented the Internet Learning Support Programme (“ILSP”) for an initial five-year period. As at December 2015, some 250 000 services have been delivered to about 44 000 eligible families. A summary of the services and the latest position is set out in **Annex C**. The annual expenditure in financial year is as follows –

³ Source: figure on the percentage of persons aged 65 or above having used the Internet in the past 12 months from the Thematic Household Survey conducted by Census and Statistics Department in 2004.

⁴ Source: figure on the percentage of persons aged 65 or above having used the Internet in the past 12 months from the Thematic Household Survey conducted by Census and Statistics Department in 2015.

Year	Expenditure (in \$million)
2011-12	28.1
2012-13	25.6
2013-14	21.2
2014-15	21.1
2015-16 (up to December 2015)	18.4
Total:	114.4

16. The programme has narrowed the gap in respect of ICT usage between students from low-income families and their mainstream counterparts. Based on the latest survey on ICT use, since the introduction of the programme in 2011, Internet adoption rate for students from low-income families has increased from 87%⁵ in 2010 to 95.2%⁶ in 2015, which is close to that of mainstream families at 96.7%⁶.

17. In addition, according to the implementing organisations, ILSP has successfully inspired vendors and the community to donate computers and sponsor through participation as mentors under the programme. Universities have even included ILSP mentorship as part of their “service learning” programme curriculum. The mentorship arrangement has not only enhanced IT knowledge of the service recipients, but also established a trustful and caring relationship between them and their mentors which has facilitated their personal growth.

Next Steps

18. Advancement in ICT can open up opportunities for special need groups, facilitating them in expanding their social horizons and integrating with the society. With the advent of Internet of Things, integrating with other technologies such as cloud computing, big data analytics, remote health monitoring and wearable devices, persons in need could improve their quality of life whether at home or outdoor. We will review the existing initiatives and take the latest technology application trends into account when mapping out a more comprehensive strategy and plan to promote DI.

⁵ Source : a survey conducted by Policy 21 Ltd in early 2010.

⁶ Source : figures on the percentage of households with PC at home connected to the Internet from the Thematic Household Survey conducted by Census and Statistics Department in 2015.

Extension of the ILSP

19. We anticipate a residual fund of about \$83 million after the completion of the initial five-year period of ILSP by the end of the 2015/16 school year. In view of the satisfactory response, we propose to extend the ILSP for a period of two years up to the 2017/18 school year to continue to provide support to the target beneficiaries. The programme expenditures for the 2016/17 and 2017/18 school years are estimated to be \$30 million and \$31 million respectively. In consultation with the implementing organisations, we will adjust the detailed arrangements of the programme taking into account the actual needs.

Innovation and Technology Fund for Better Living

20. In the 2016 Policy Address, the Chief Executive has proposed the setting of a \$500 million “Innovation and Technology Fund for Better Living”, to be spearheaded by the ITB to provide funding support to projects that make use of innovative ideas and technologies to improve people’s daily lives. The fund will be open to applications by NGOs, public service organisations and enterprises, who will need to put up specific proposals to improve the daily life of our people. We will finalise the operation details such as vetting criteria and subsidy format, etc. We also plan to leverage on the fund to encourage innovation in the market to support DI initiatives. We would invite the social services sector and the ICT industry to instil ideas to establish meaningful programmes for various underprivileged groups. We will consult the Panel regarding details of the fund at a later stage.

Advice Sought

21. Members are invited to note the content of this paper and to give their views on the proposed two-years extension of ILSP.

Innovation and Technology Bureau
Office of the Government Chief Information Officer
February 2016

Digital Inclusion Mobile Apps

Beneficiaries Group	Mobile Apps / NGO Partner	Function
Elderly	eElderly Activity Search Hong Kong Society for the Aged	A platform for the elderly to search activities in over 190 local elderly centres
	One Click to Know Dementia Jockey Club Centre for Positive Ageing	Provide dementia patients with cognitive training and help seek emergency assistance when getting lost
Persons with disabilities	Barrier-Free Travel Guide Hong Kong Federation of Handicapped Youth	A barrier-free travel guide for persons with physical disabilities, detailing the accessibility facilities in tourist spots of Hong Kong
	Searching & Exploring with Speech Augmented Map Information (SESAMI) Hong Kong Blind Union	Speech augmented map information and indoor venue facility information to visually impaired persons
	SignChat Hong Kong Association of the Deaf	Maintain a library of sign languages for persons with hearing impairment to communicate in sign language through instant messaging applications
Children with disabilities or special education needs	Articulation Screening and Training Tool Hong Kong Society for the Deaf	Assess and train phonological abilities of persons with hearing impairment
	Auditory and Speech Training App Hong Kong Society for the Deaf	Cantonese speech recognition training kits for children with hearing impairment
	“Learn smart” teaching material publishing platform Hong Kong Lutheran Social Service	Training kits and a publishing platform of teaching materials for students with cognitive impairment

Beneficiaries Group	Mobile Apps / NGO Partner	Function
Children with disabilities or special education needs (cont'd)	HOPE Chinese Character Game Hong Kong Young Women's Christian Association	Assist children with dyslexia in learning the structure of Chinese characters by decoding method
	MathAid Ebenezer School and Home for the Visually Impaired	Reinforce the learning of core mathematical skills for students with visual impairment
	Stories for Social Skills Made Easy SAHK	Social learning educational kits for children with autism
Ethnic minorities	Hong Kong Easy Yang Memorial Methodist Social Service	Chinese learning platform for ethnic minorities to learn vocabularies and Cantonese pronunciation

ICT Outreach Services for the Elderly

Metric	Achievement as at December 2015
Number of elderly units visited	49
(a) Residential care homes	30
(b) Day care centres	19
Number of elderly engaged	1 325
(a) Institutionalised elderly	690
(b) “Hidden” elderly	87
(c) Elderly receiving day care service	473
(d) Elderly receiving home care service	75

Internet Learning Support Programme

Service Items	Achievement as at December 2015
1. Number of eligible families served	43 724
2. Total number of services rendered	249 537
(a) Number of training services provided for eligible parents and students	87 561
(b) Number of social support services rendered	58 985
(c) Number of technical support services rendered	78 675
(d) Number of computer equipment sale services	10 889
(e) Number of Internet package sale services	13 427