

**Clerk to Panel on Information Technology and Broadcasting Legislative Council Secretariat**

Dear Sirs,

Introduction:

HMSCIA is dedicated to promote the Hong Kong software industry and its product's marketability to China market, promote the interactivities between Hong Kong and Mainland, to the effect that Hong Kong can become the software trade hub of this region. Digital divide is a topic that we are hugely concerned from the following perspectives:

1. Training and availability of highly qualified software engineers.
2. Market growth coming from the proliferation of digital technology, and thereby a potential of software trade hub in Hong Kong.
3. Appropriateness of IT investment.
4. What need to be done in the future to capitalize on the investments made.

This perspective is different from that of a social equality and stability viewpoint but we believe the new perspective will bring in higher effectiveness of the Government investment on Digital Divide and bring in more benefit to the lesser privileged people in the society through better IT knowledge and better anticipation of IT demand and technology trends in the coming years.

The latest document in our hand is published May 13 2002, all our viewpoint is based on that paper and related readings from Mark Warschauer, August 2003, Scientific American.

## **Review of the past activities and our position on these activities**

### **1. Overall spending**

It is obvious that most investments are hardware and/or infrastructure oriented; on the 667 mn spend in 2002-03(Annex C of May 13 2002 document) only 2 items can be related to software and development of software, namely:

To improve government web sites to enhance accessibility for people with disabilities; 2.3mn, and to install additional assistive software at community cyber points designed for use by the visually impaired; 0.48mn totaling 2.82 mn out of 677.03; a mere 0.4% of the total, even if we consider the provision of a simplified Chinese character version of Government web pages: 9.96 million; the percentage is only 1.88%.

We propose a higher spending on software and related services by IT professional to the effect that a “clothings” approach is emphasized more in the Digital Divide spending vs the “fire” (page 44 Warschauer august 2003) approach that characterize the past expenditure pattern.

In the clothings approach, a detail study of the need of the lesser privileged people is studied, skilled personnel services and assistance (sometimes chargeable to enhance its sustainability) In past record in India and USA, California, this approach proves to be more successful. And in Hong Kong, since software industry is facing a hard time with unemployment at 20%(data published by HKPC), this approach will help preserve the industry talent while increasing the effectiveness and return on investments of all the hardware platform created so far with the total cost of HK\$ 2.2 Billion.

The future expenditures, a study must be made to identify the mission of the investment on digital divide, specifically what the underprivileged will achieve by using the new gadgets provided. And the measurement of the mission accomplished will be a guideline on the success of the project. For example, if we want to help the new immigrant to improve their English using the many PCs available in the cyber spot, we need to invest on English tuition software, have a few tutors available to get the student started in the process(some service may be chargeable), and log the grade of accomplishment of the students concerned. Otherwise the cyber spot will be a playground for free and eventually lower the academic achievement of these new comers since they spend most of their time fooling around internet and tell their ignorant mom that they have been studying in the cyber spot.

## 2. Training expenditure

We have no breakdown in the training expenditure, but they seems to be mostly usage oriented. The total figure was 604.3 mn , 89.35% of 02-03 spending.

In future, we urge the training to focus more on programming, software development and usage of “free software” with source code. Without which all such training will become free advertising and promotion to major branded software, unless such major brands sponsor these training, the government spending should not be biased towards these well established brands.

Instead training on “free software” should be emphasized, “free software” is a very important trend in IT, “free” is freedom to use but commitment to recognize the original programmer. Notably Linux operating system and thousands of related software. The trainee will get to know “why” instead of just “how” on the software being used.

It is difficult to review the successfulness of the training, as a proxy, we will use university application rate. Despite the heavy spending on training of IT skills, software development talents and willingness to go to University for further study is declining( CUHK enrolment on IT had dropped 15%). These young student may think there is no future in IT despite being made aware of and trained in using the IT apparatus, yet they are less interested in the subject than before when less training was provided before the Digital Divide investments began. The approach on training may be flawed to create such outcome, without a more objective way to review the success of these training, we cannot take a position to endorse the present expenditure and direction.

## **Proposal**

### **Cloths approach to future investment**

As reported in Warschauer august 2003, the “fire” approach had proved to be wanting in many cases in closing the gap of digital divide, whereas the “cloths” approach is proved to be successful. All future investment should consider this and the STIR process: study, tailor, implement and review. Without which all investment will become blind money throwing everywhere with no perceivable effects.

### **Use the existing facilities to promote Digital Text Book**

Hong Kong educators is not using the digital technology effectively even with all the hardware, broad band installed, and the main reason is that the text books used in school-they are till in stone age vs digital age. In a sense they are the left behind, without a proper tool of digital textbook and contents, the existing vast investments of IT infrastructure will not be effective and may even be an obstacle, extra investment should aim at making all text book internet browser based and on-line readable- coupled with the existing features that help the visually impaired, they can have access to text books and feel equal to all other classmates. Online progress monitor and test can also be implemented to allow different rate of learning for different students.

### **Put Smartphone into the digital divide picture**

Due to the mobile phone proliferation and speed of technology enhancement we observed in the trade, in the near future hand held smartphone will be more important than desktop in bridging the digital divide and all future government investments should consider this effect.

Government should promote smart phone with internet browser, since they are cheaper than a PC and is essential to life in terms of getting connected and involved in the society, without being pined to a fixed location. Study should be conducted on how lesser privileged people can use these in innovative ways and how IT professions can help them enhance their life in the digital age . The study must accomplish the STIR steps cited above. An example will be letting blind people know where they are using mobile phone location service – this should be given to the visually impaired free of charge.

## **Regional Perspective**

The service and product derived from government investments, especially those that can be resold to mainland China, should be considered in any initiation of future investments. This will create a bi-directional flow of information and necessary help to the Digitally impaired groups, many of which will be in mainland China. Whereas giving it to them free of charge is unreasonable, selling them at a price which is lower than their cost of redevelopment will be a proper way to use the money spend on existing project. But this must start in planning stage, and we urge the future project should take this regional factor into consideration.

## **Conclusion**

HMSICA is concerned about Digital Divide and our position is:

- 1.Changing from “fire” to “cloths” approach.
- 2.Engage the software industry in an early stage of future investments.
- 3.Text book should go digital and educators should not be part of the digitally impaired sector, they should embrace digital technology into their daily teaching.
- 4.More service spending in the future to help the unemployment in IT.
- 5.Review and redefine the training so that more young people know IT and programming – increasing the talent pool for a knowledge based economy.
- 6.Increase the usage of “free” software.
- 7.Include Smartphone in the Digital Divide perspective.
- 8.Bi-directional engagement with mainland in future projects.