

**Panel on Information Technology and Broadcasting  
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**Building a Digitally Inclusive Information society**

***Paper for Consideration***

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**1. Introduction**

It is difficult to gain an overall understanding of the "Digital Inclusion", the different approaches to solutions, and what is really making a difference when there are multiple definitions of the "digital inclusion" conflicting papers of whether it is growing or shrinking, and a range of opinions on the key factors affecting it. In fact, the digital inclusion is a complex movement that manifests itself in different ways in different countries.

This paper reviews some of the basic facts about ICT (Information and Communications Technology) access and use, and provides an extensive list of resources for the topic of "Building a digitally inclusive information society."

**2. International and Domestic Digital Inclusion - Trends**

**Real discrepancies exist in access to and use of information and communications technology (ICT) between countries and between groups within.** There is a true fact to support this statement. Wealthy nations comprise some 16 per cent of the world's population, but command 90 per cent of Internet host computers. Of all the Internet users worldwide, Hong Kong is the most PC populated users in the world while PC or internet is the luxury item for people in the under-developed countries.

**In highly developed countries, some observations are listed as follows :**  
In certain rich countries (such as the US and Finland), saturation points for baseline technologies such as PCs have almost been reached for some groups. Therefore, since the underserved are increasing baseline technology access and use, the gap between the information "haves" and "have-nots" *appears* to be closing.

When new technologies are introduced, the actual divide is happened again because only the "information haves" can afford to acquire, and have the skills to use, the technology quickly, and they derive privileged benefits.

**The underlying trend is that privileged groups acquire and use technology more effectively, and because the technology benefits let them become even more privileged.**

The infusion of ICT into a country paints the existing landscape of poverty, people class discrimination, and quick adoption of new technology. ICT can reward those who know how to use it with increased income and cultural and political advantages.

Therefore, ICT disparities usually happen based on location (such as rural-urban), gender, physical disability, age, ethnicity, and income level

**The digital inclusion will be achieved by different levels of ICT access, basic ICT usage, and ICT applications among countries and peoples.**

Each country and group has a unique profile for how technology is used, or not. Most national government do not provide a coherent plan of action to address the inequities they describe such as gender, ethnicity, physical disability, age, etc.

E-readiness assessments are a valuable tool with which to gain this more informed, region-specific understanding, and to develop an action plan.

### **3. Recommendations**

Most offer recommendations for tackling the problems, usually suggesting specific ground level initiatives and policy reforms. Many also cover the wider issues that impact on digital divide, such as e-commerce, information society, and international trade. Major international initiatives such as the G8's Digital Opportunity Task Force (DOT Force) have brought together leaders and decision-makers from around the world for a consultation process to determine the key factors and how to address them. Several organizations have undertaken "e-readiness" assessments to determine a country's readiness to integrate technology and e-commerce and establish a benchmark for regional comparison and public and private sector planning.

Recommendations to build a digitally inclusive information society are as follows :

**Numerous on-the-ground initiatives are working to provide technology access and help put technology to use in the underprivileged groups.**

There are an enormous number of efforts, ranging from NGOs to government departments to provide trainings to the underprivileged groups. However, Hong Kong government should encourage local community bodies to continue organize innovative E-Inclusion projects by sponsoring some funding. Large high-tech MNCs are invited to sponsor these projects.

**Many initiatives address specific aspects of the range of issues, but too often they neglect related factors that limit their success.** For instance, the number of computer training centers are growing in recent years. Sometimes, they have failed to address the role of the training centers in the local economy or the need for locally relevant content. There is a need for a holistic approach to cover the range of issues to create effective and sustainable uses for technology that are integrated into local society.

## **Real Access to Technology**

In order to build a digital inclusive information society, we must consider the following critical success factors in whether or not people have "*real access*" to technology; i.e. access that goes beyond just physical access and makes it possible for people to use technology effectively to improve their lives.

### **Critical Success Factor of Real Access to Technology**

**Affordability.** Is technology access affordable for people to use? Open of telecommunication industry is one way to reduce the cost

**Appropriate technology.** What is the appropriate technology according to local conditions, and how people need and want to put technology to use? Can Smart ID project really enforce a secure and privacy transaction taken place ?

**Physical access.** Is technology available and physically accessible?

**Capacity.** Do people understand how to use technology and its potential uses? How we can educate some low-educated immigrants from our Mainland to adopt the technology ?

**Relevant content.** Is there locally relevant content, especially in terms of language? Not too many Chinese language of applications are built !

**Socio-cultural factors.** Are people limited in their use of technology based on gender, race, or other socio-cultural factors?

**Trust.** Do people have confidence in and understand the implications of the technology they use, for instance in terms of privacy, security, or cybercrime?

**Legal and regulatory framework.** How do laws and regulations affect technology use and what changes are needed to create an environment that fosters its use? Can ETO cover the daily legal implication of electronic transactions ?

**Local economic environment.** Is there a local economy that can and will sustain technology use?

**Macro-economic environment.** Is national economic policy conducive to widespread technology use, for example, in terms of transparency, deregulation, investment, and labour issues?

**Overall, a pooling of resources and experiences is needed.** Dealing with the digital inclusion is beyond the scope of any single initiative. It is important for organizations doing community ICT projects to meet the needs of their clients as comprehensively as possible. More collaborations with ICT and IT professional associations should be encouraged.

**Donation and other philanthropic programs are necessary.** Donations and philanthropic programs have demonstrated the useful application of technology

among underserved populations, but in many cases they have failed to produce sustainable, widely replicable models.

**The digital inclusion is long-lasting mission.** We should learn from previous experience in fields such as economic development, technology transfer, and sustainable development. Many of these ongoing programs have an impact on digital inclusion, and coordination will benefit both sides.

#### 4. Policy

Hong Kong government can play a fundamental role in creating an environment that will foster technology use and encourage more investment in ICT infrastructure, development, and a skilled workforce. Government action is also important in spreading the benefits of technology throughout society, and governments have the power and mandate to balance the needs of their citizens for long-term economic growth and social prosperity.

*Real access* to ICT is affected by nearly all aspects of policy, ranging from digital signatures to collective bargaining and general macro-economic policies, which places "the digital inclusion" debate in a wider context.

Other major stakeholders and actors in the policy-making process include: a wide range of organizations and companies, including, international organizations (e.g. UN, ITU, World Bank, WTO, W3C), regional Internet registries (RIPE, ARIN, APNIC), private businesses (e.g. Internet service providers, Telecom companies, Financial sector companies, Certification Companies), business associations

**Policy directions must be adapted to the local context.** Often basic policy principles are agreed at the international level, or policies are transferred from highly industrialized countries to developing and emerging countries. The local context -- in terms of local needs and skills and local political issues -- has a significant impact on whether generally accepted policy reforms are actually adopted and put into practice. Policies and processes that are grounded in real life experience, in local circumstances, based on real user needs, and addressing the multiple issues of *real access* to ICT have been more effective than those that have not.

#### 5. Conclusions

**A failure of development initiatives.** Development initiatives have been essential in providing basic access to underserved populations, but have failed to provide sustainable, replicable models for community ICT use, and often with top-down approaches that are not grounded on the needs, interests, and participation of local residents. They would benefit from involving the private sector in an effective way so that the results of their efforts are integrated into the local economy to ensure sustainability. Sustainable Growth in ICT is a very important factor for building a digitally inclusive information society in Hong Kong.

**A holistic approach which aims for *real access* to technology is needed.** The critical success factors that we outlined above provide a roadmap to a digital inclusion approach aimed at integrating technology into society in an effective, sustainable way so that people can put it to use to improve their lives.

**There are real disparities between countries and socio-economic groups that are benefiting from information technologies, and those that are not.**

While information technology use is growing around the world, the disparities are also growing. Whether or not one chooses to label these disparities as digital inclusion is immaterial: the disparities remain.

**There is a disconnect between on-the-ground efforts and policy-making processes.** Both ground-level initiatives and policy reform are necessary, and information flow between them will make both approaches more effective.

Unfortunately, there are few models that effectively bring the two together.

Government, business, society and current and future technology users must understand and acknowledge each other's position and responsibilities.

**A failure of market forces.** The private sector has slowly spread technology to middle income groups, but on the whole has failed to see the developing world and underserved populations as valuable markets which require targeted products

**A failure of the government.** Government policy has often tried to meet the short term demands of their constituencies, but failed to provide a coherent long term plan for prosperity, or hindered the efforts of development initiatives and the private sector to address ICT disparities. More promotion to SME market is required.

**All three failures need to be turned around if we are to bridge the divides with effective, practical applications of technology.** Without entrepreneurship, and government policy encouraging and supporting equity, development initiatives face insurmountable tasks and no funding to finance them. Without basic electrical and telecommunications infrastructure programs and universal service initiatives by government, ICT companies will have little incentive to develop new products to meet the needs of people who cannot use or afford their existing services. And, government policies are useless without ground-level programs to take advantage of them.