

***Infrastructure Roadmap  
to the  
Ubiquitous Network Society***

**Science and Technology Advisory Group,  
Executive Yuan  
2006/4/1**



# Content

- Background**
- Concerns and Issues**
- Strategies and Action Plans**
- Discussion Topics**



# Backgrounds

Vision

**With all-embracing e-services, making Taiwan a more secure, convenient, and safer society**

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Goal

**Making Taiwan The most Advance U-Island**

- **90% of broadband coverage by 2010**
- **80% of satisfaction rate of U-Life by 2010**
- **80% of citizens recognized Gov performance by 2010**

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Strategy

**Promoting Killer Applications**

**Quality Network**

**Quality Environment**

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# Backgrounds (Cont.)

**80% of satisfaction rate of  
U-infrastructure by 2010**

**Solutions to Public Issues**

**Countermeasures to  
Public Concerns**

**Strategy and Actions**



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# Potential Issues

## □ Piracy

Many in the research and development community clearly recognize the inherent challenge that a pervasive system of networked computers is against privacy and surveillance concerns.

## □ Intellectual Property

Piracy issue has been one of the major concern in the industry development, but still been unsolved.

**In order to face the challenge of the emerging technology, and promote the u-industry, a “ICT Basic Law” or regulations revisions may need to be in place.**



# Potential Issues (cont.)

## □ ICT Security

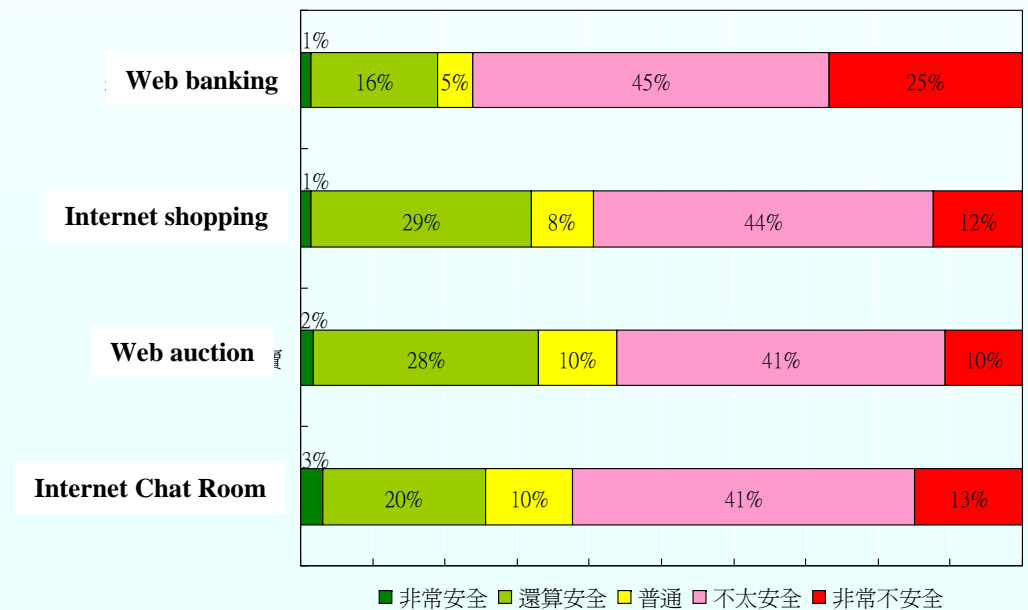
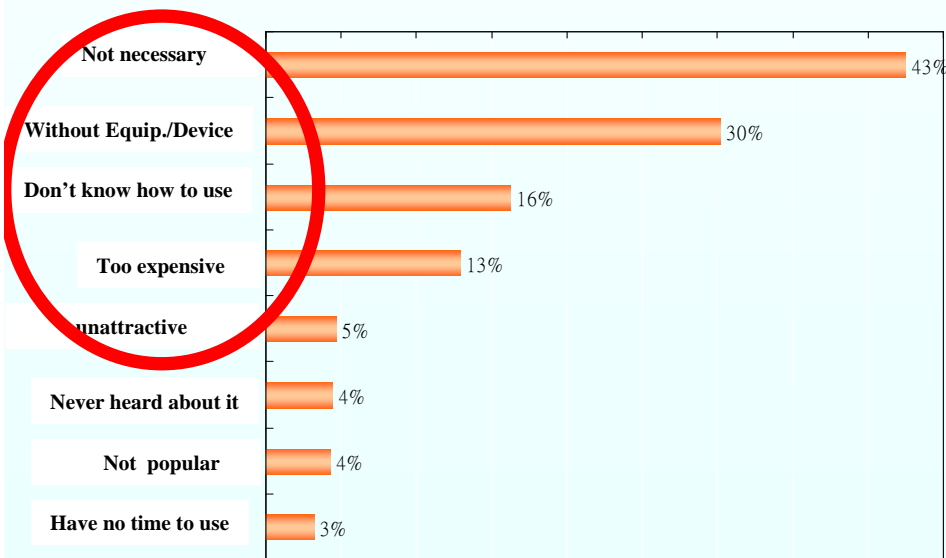
- With the increasing usage of wireless communications, the security issue of the network and internet need to be paid much more attention
- The more powerful of the plug-in mobile device, the more difficult to control or maintain security issue
- In the UNS environment, a lot more data saved or transited in the network need to be secure and protected

**In addition to build an secure internet networks, next step is to raise the consumers' confidence over the internet transaction environment.**



# Issues & Concerns (1/3)

□ According to III's Survey, the concerns of internet users are network traffic, SPAM, connection quality and Virus, also there are over 70% of citizens worry about the internet security on online banking, and online trading.



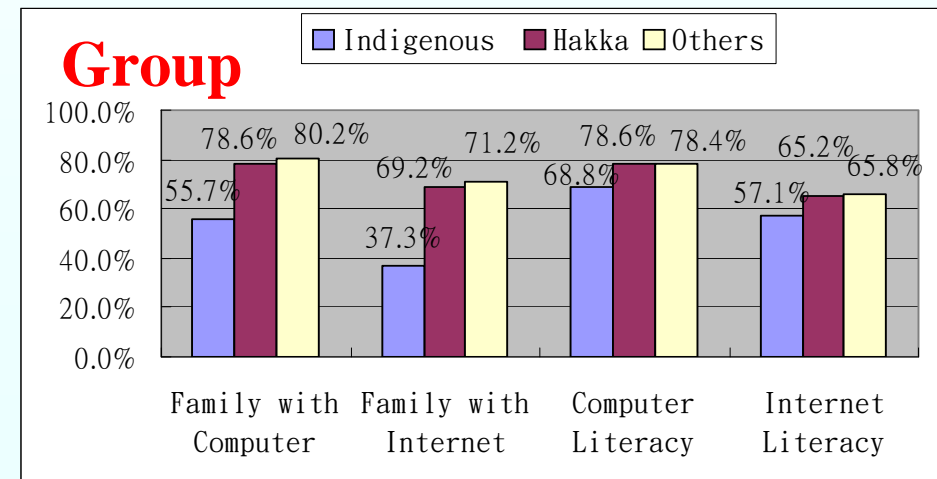
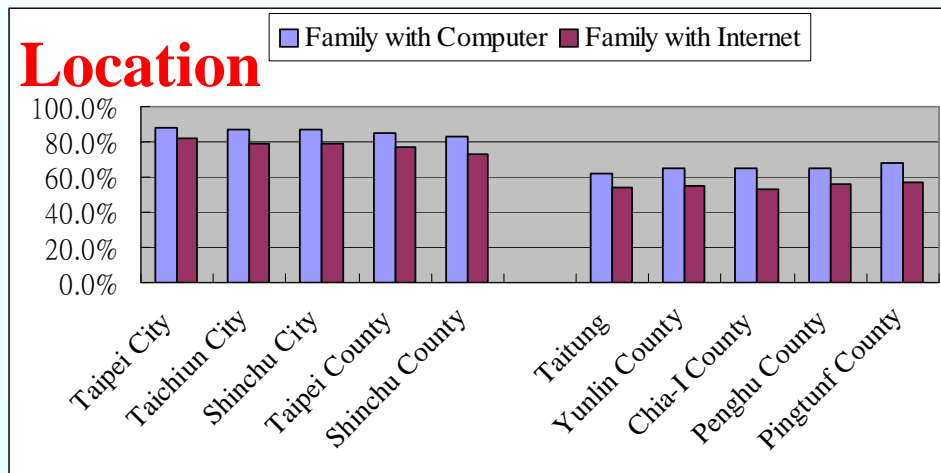
Source: III ACI-FIND , 2005/03



# Issues & Concerns (2/3)

## Bridging Digital Divide , Creating Digital Opportunity

- ❑ Because of different locations and groups, there is a group of people left behind in ICT literacy.
- ❑ WSIS declares our common desire and commitment to build an Information Society, where everyone can create and share information in promoting their sustainable development and improving their quality of life.



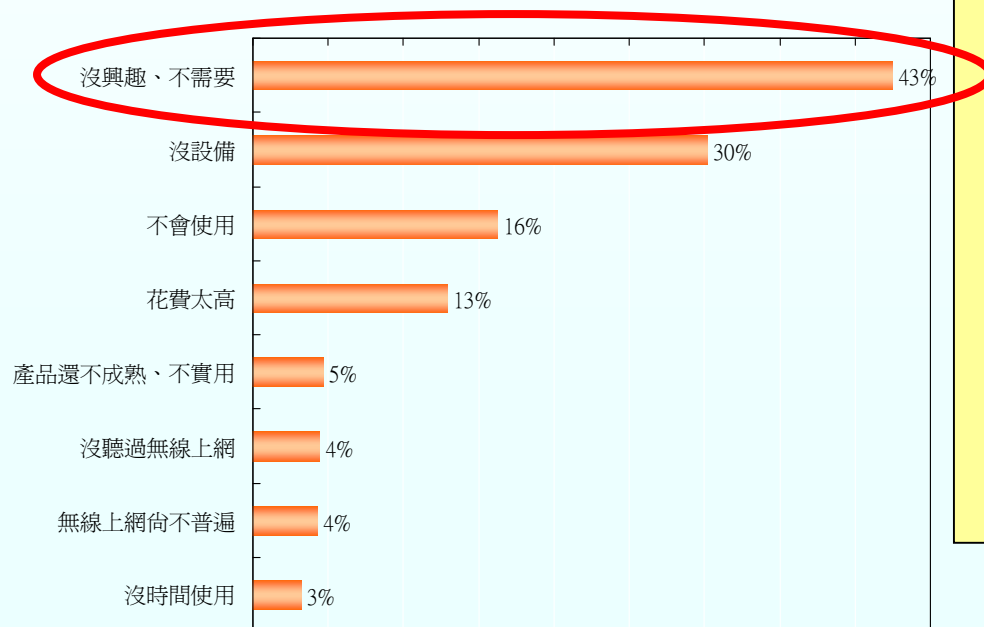
Source: RDEC, Executive Yuan 2005



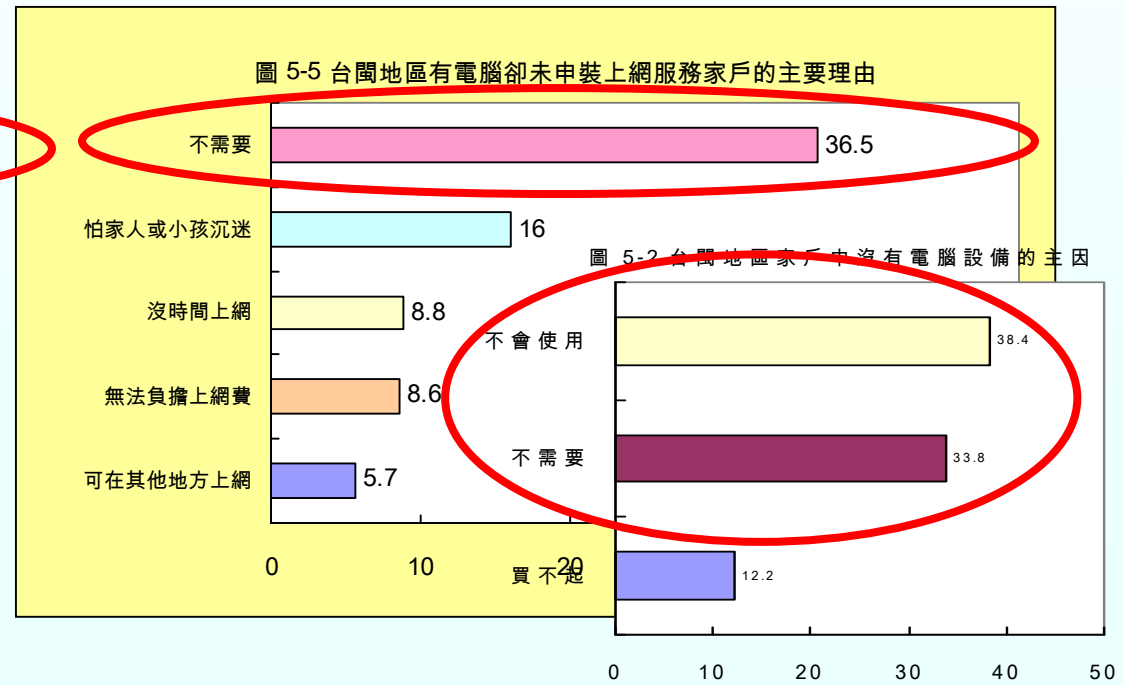
# Issues & Concerns (3/3)

## All-pervasive ICT education & literacy

- According to III's survey, the key reason citizens not using wireless or mobile internet is “not necessary”
- Also on RDEC's survey, the key reasons citizens not to have computer and not to use internet are the same “not necessary”



Source : III ACI-FIND , 2005/03



Source: 2005 digital divide survey, RDEC



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# Quality UNS Infrastructure

## Vision

Establish a environment which citizens can enjoy their daily lives, and business can enjoy an fair competitive scenario

## Goal

- 80% of satisfaction rate from Citizens by 2010
- 80% of satisfaction rate from business by 2010

**Government Lead,  
with Private Sectors Assistance**

## Policy

ICT Basic Law

Building consumers' confidence upon secure UNS networks

Promoting digital content industry

Bridging digital divide and providing equal e-Opportunity

Advancing computer literacy and talent cultivation

Expanding international collaboration



# 1. Reasons to Promote ICT Basic Law

- ❑ **Integrate the current regulations, and propose the “ICT Basic Law” to balance the emerging ICT developments and the human rights.**
  - Japan initiated the 「ICT Basic Law」 in 2001 to deal with the emerging technology.
  - In 1995, South Korea also promoted 「ICT Basic Law」 as a guide moving into information society.
- ❑ **Currently, ICT budget is often in the lower priority, 「ICT Basic Law」 may assure the ICT budget reaching the proper ratio of yearly national budget**
- ❑ **With the 「ICT Basic Law」, there are still issues need to be solved**
  - Under current regulations and the later 「Government Reform Act」, which agency is responsible for the 「ICT Basic Law」?
  - Need more communications among all stakeholders to reach common consensus



# Proposition of ICT Basic Law

## Goal

**Build an information Society, Having quality living style,  
bridging digital divide, Increasing economic growth**

**Policy & Action Plans**

**Information Society Steering Committee**

**Bridging Digital Policy**

**UNS Talent Cultivation**

**Privacy Protection**

**Government Information Publicity**

**Establish Internet Morality**

**Promote ICT Culture**

**Promoting e-commerce**

**Regulating UNS Security Standards**

**Promote ICT Industry**

**Promoting UNS Applications**



## 2. Information Security and Trust Mark Mechanism

**S**

- National information security policy
- 5 Year e-gov experience
- One year Promotion experience
- ICT Security industry is warming up

**W**

- Business is lack of security governance
- Need to enhance ICT security concept
- More Actions against Cyber crime
- More complete ICT security regulations

**SWOT**

**O**

- Security concept in governments
- Private sectors invest aggressively
- Emerging wireless technology
- National Broadband Policy

**T**

- Confidence over the web transactions
- Privacy Issue
- Less aware of risk of ICT security
- Hackers' technology keep changing



## 2. Information Security and Trust Mark Mechanism (Cont.)

### Goal

**Building a secure internet network infrastructure, and Increasing consumers' confidence.**

- Continue to conduct and manage the “National Security Operation Center” (NSOC)
- Establish trust mark mechanism on UNS products and services

### Policy

- Assure all governments, private sectors, and citizens to be responsible for the information security (Ex: Japan encourages all business applied for ISMS certification.)
- Keep up with the international standards of internet security
- Enhance the security mechanism in the wireless communication environment.
- Promoting internet security concept in publics



## **3. Challenge on Bridging Digital Divide**

- ❑ It's very challenging to implement digital opportunity centers (DOC), and provide the e-Opportunity to all.**
- ❑ There are not enough resources and experienced staff implementing the e-opportunity project.**
- ❑ The success of DOC is depend on local characters, should not be one size fits all.**
- ❑ e-Opportunity projects involved many stakeholders, and it's not easy to satisfy all of them.**



## 3. e-Opportunity Project (Cont.)

### Goal

- **70% of families in the rural area with the broadband connections**
- **20 quality Digital opportunity centers (DOCs) as best practice.**
- **80% of citizens recognizes the benefits of the u applications.**

### Policy

- ❑ **More research and practices on the sustainable operations of DOCs ◦**
- ❑ **Integrating resources and applications to reach the better synergy ◦**
- ❑ **Establish a cross-agencies promotion mechanism, and encourage the group of civil society running the DOCs ◦**
- ❑ **Continue to promote the DOCs, so every citizen understands the project and is willing to contribute on it.**



## 4. Issues in Talent Cultivation

- Lack of incentive is the major reason people not using computers and internet.**
- Still short of quality professionals.**
- Not easy to cultivate cross domain expertise, and creative talents.**
- ICT application literacy still need to be improved.**
- School systems need to be more flexible in order to catch fast changing technology trend, and paradigm shift.**



## 4. Talent Cultivation Program (Cont.)

### Goal

- **Raise overall ICT literacy**
- **Reinforce talents in the area of basic science, application innovation, and Technology service industry**

### Policy

- Regulate the school systems in order to catch the speed of technology changing, and enhance the ability of technology specialists.**
- Promote the UNS related curriculums , and be focus on ability of creation and innovation.**
- Promote e-learning and digital content institute.**
- Train and Transform resources into UNS service Industrty**
- Recruit overseas professionals ◦**



## **5. Promoting Digital Content Industry**

- ❑ After computerization and digitalization in the past 20 years, there are tremendous information and materials kept as our valuable asset, digital content industry can help us utilizing those information and creating more value-added applications ◦**
- ❑ In the Ubiquitous Network Society, Issues in the promoting digital content industry are :**
  - Digital Archives authorizations and popularity of digital content applications**
  - The circulation and transaction of digital content mechanism (Privilege management , copyright regulations, and transaction platform)**
  - Target market and differentiation**



## 5. Digital Content Program (Cont.)

### Goal

**Establish a sound digital content development environment**

### Policy

- Popularizing the applications of digital archives**
- Continue to open Government information to public and create value-added applications**
- Complete the digital content circulation and transaction mechanism**
- Creating incentive to promote digital content industry**



## 6. Expanding International Collaboration

- ❑ In the globalization, and knowledge-base economic, most countries had recognized ICT strength an essential factor in determining a country's competitiveness
- ❑ After Dr. Joseph Nye initiated the concept of “Soft Power”, countries around the world has been participating international collaborations more aggressively.
- ❑ In WEF global information technology report 2004-2005, there is a case study introducing Taiwan's ICT development model and experience, and call Taiwan “The emerging ICT Giant”
- ❑ In addition to be more involved in the international affairs, Taiwan needs to be focus on few topics, and integrate resources so as to reach synergy.
- ❑ Encourage civil society to be more involved into international affairs, so as to increase Taiwan's attractiveness and visibility to the world with the expression of soft power.



## 6. International Collaboration Project (Cont.)

### Goal

**By sharing the successful ICT experience, Taiwan can increase our own “soft power”, keep our competitiveness and empower our global influence.**

### Policy

- Work with APEC member states, and establish the Asia-Pacific “e-Competitiveness Report”**
- Continue to promote ADOC project, and assist under developing countries bridging digital**
- Consolidate public and private sector resources to participate international ICT meetings (WCIT、IGF...etc)**
- Holding the international ICT conferences**



# Discussion Topics

- 1. Referring to Japan & Korea's strategy, promote the 「IT Basic Law」 to assure actions, regulations and government budget are bundled properly.**
- 2. Encouraging both public and private sectors share the social responsibility in the internet network security, either have them applying for the Information Security Management System (ISMS) mechanism or take the security certification into consideration while issuing the business permission.**
- 3. Promoting UNS related curriculums in schools, and assisting to cultivate UNS industry talents.**
- 4. Integrating resources and long term projects to ensure the sustainability of digital opportunity centers.**