



# Grounding e-Government in Vietnam

## *Bringing more government services to citizens*

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### Abstract

The development of electronic government has become a global trend of public sector reforms during the last decade. By now, significant experience of e-government has been accumulated, revealing key factors success and failure. Efforts to build e-government in Vietnam are, however, often top-down from the policy makers, and thus, lack practicability and sustainability.

In order to plan strategy more effectively, the government needs to improve its understanding of the citizen base of e-government. From January to April 2006, 36 in-depth interviews were conducted by the first author with Vietnamese ICT users and nonusers across the country to research challenges facing ICT use. Economic affordability, infrastructure availability, psychological reluctance and time constraint are major obstacles preventing Vietnamese people from using the Internet. Luckily, despite the fact that nonusers have never touched computers many of them invest for their children to be able to adopt the new technology and their potential demand for e-government services is relatively high. For the group of ICT users, education, age, ICT seniority, ICT literacy and social skills, finance and time as well as the availability of e-government services are critical factors that affect them in exploiting the ICT application in general and e-government service in particular.

Based on our field work study, we suggest that appropriate e-government promotion activities focusing on current ICT users need to be carried out. Amongst several solutions, extending and clustering information channels, especially local government, netcafes and post and culture centers in rural communes, are recommended to bring e-government down to the non-users.

**Key words:** e-government, ICT users, ICT nonusers, Vietnam.

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## **1 Introduction**

Recently, the World Bank published a report titled "Governance Matters V: Governance Indicators for 1996–2005" which provided worldwide governance indicators, covering 213 countries and territories and measuring six dimensions of governance (Kaufmann, Kraay, & Mastruzzi, 2006). While political regime is stable, all other 5 elements, namely voice and accountability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption, receive very low score compared with other countries and almost not much considerable improvement can be seen during the last 10 years. The assessment indicated that quality of governance as well as the capacity to meet the people's demand is not satisfactory and needs to be strengthened accordingly. Clearly, it is essential to enhance the capacity of the government to effectively manage its resources, implement sound policies and satisfy better the needs of citizens, community and business sector, especially when Vietnam is integrating into the global economy and joining the WTO.

For that purpose, the building of an electronic government (e-government) is considered as a promise to build *a government of, by and for* the Vietnamese people (Tuyen Thanh Nguyen., 2001). Of those people, 12 million are living in a wired world where night and day they interweave together with the Internet (HCA, 2006). Earlier studies, unfortunately, do not reveal how Vietnamese people can access to the public services via the ICTs mediated channels. Once connected in the wired world, a series of questions are also unknown such as for what purposes Vietnamese people connect? Which activity do they usually do? Do they use e-government services? And finally above all what are real changes, benefits and difficulties that the people are experiencing and how do they tackle when they adapt the e-government services? Of those people, more than 70 million others are still living and working without computer. Therefore, in order promote them to use e-government services, it is necessary to find out what are the major channels of information through which they acquire new information and knowledge to tackle the problem? And what are the barriers that prohibit nonusers to enjoy the benefits of e-government?

This paper attempts to analyze factors that may affect the adoption of ICTs applications and e-government in Vietnam. From the demand side, we identify challenges and obstacles that prevent people from enjoying e-government achievements. By carrying in-depth interviews with 36 citizens in various regions of the country and analyzing their data and related documents we found that the computer experience, education level, age, gender and the availability of ICTs infrastructure influence the probability of ICTs adoption. Obstacles to nonusers are financial affordability, infrastructure unavailability, educational and psychological restrictions.

Understanding the obstacles to ICTs, the key media of online government, will help government to define appropriate measures to overcome in delivering public services to citizens in the form of e-government. However, as a major limitation of the paper, we do not have direct data about e-government itself from respondents. That shortcoming, we



expect, will be surmounted by further studies that specialized in e-government needs and obstacles in Vietnam in the future.

## **2 E-Government from Demand Side**

E-government refers to harnessing ICTs to improve the way government serves citizens, businesses and agencies alike. Early trials of online governance were guided by government-centric approach. However, the experience of e-government projects later shows that successful e-government programs could only be based on the demands of consumers rather than by the government itself. It is especially important in the case of developing countries where the difference between reality and design is often widened by the gaps of hard-soft, private-public and countries-context (Dada, 2006).

There are many definitions of citizen centric strategy in e-government. Put simply, a citizen-centric government is one that favors citizens and businesses like the first priority. Citizen-centricity is about turning the focus of government around—looking at the world through the other end of the telescope, so that the needs of the citizen and businesses come first, rather than operational or other imperatives inside the government machine. While this consideration is underpinned by the opportunities provided by technologies to change citizens' interactions with public institutions, it recognizes that successful implementation depends on significant organizational changes, together with leadership and the development of new skills.

In Vietnam, the government has started the 112 Project on computerization of state administration, some of the first initiatives to realize e-government basis, along with the Public Administration Reform (PAR) with since 1999. At the moment almost all ministries and national departments and 64 provincial governments have website presentation. In parallel with that project, many governmental agencies from ministries to provinces have set up their own websites to provide information and limited services to business and individuals.

Still, a large number of lower level agencies including 1,843 district and 9,595 communes have not been connected to this system except some districts in Hanoi and Hochiminh cities. In a survey made by Pham, only 2 out of 49 websites provided on-line services such as licensing, registration, custom procedure and Q&A (Thi Bich Hoa Pham., 2005). The benefits of Vietnamese online services are moderate. For instance, NBIN, an automation of the business registration process, did not allow any registration to be carried out online. That static website simply provided information and application forms and people still had to meet government staff to register their business (Vu & Jones, 2006). Furthermore, little attention has been given to identify the needs and obstacles of the people towards e-government. E-government projects basically focused on internal administration - G2G affairs rather than G2C and G2B relationship. Vu & Jones (2006) argued that

E-Government initiatives have been far to focused on modernisation and the purchase of hardware for government agencies. (...) All initiatives (Project 112



and PAR initiatives) are supply side focused with little thought to the actual needs of users, business and citizens, and how these needs can best be met...

They hence recommended that "the service needs of citizens and businesses be addressed and e-government initiatives and PAR meet these needs rather than taking a supply side approach to projects." (Vu & Jones, 2006)

The lack of information of customer's needs, obstacles and weaknesses on online services could be likely the visible failure, large investment wastages and reputation ruin of future e-government projects.

### **3 Methodology**

The main sources of information in this paper come from the data collected in two series of in-depth interviews in Vietnam from January to April 2006 by the first author. The focus of the study was ICT users who had been using a computer and ICT nonusers.

For the nonusers, the following open-ended issues among others were investigated: what are major problems they encountered? What are major channels of information through which they acquire new information and knowledge to solve the problems? What are barriers that prohibit them to use ICTs? For the users, the key open-ended questions were: for what purposes do they use ICTs? What are difficulties that they are experiencing and how do they handle with? Does the usage of ICTs help them in their work and life?

36 respondents were chosen randomly in net-shops or in their working places from North to South of Vietnam. We used Vietnamese language in interview. An explanatory statement and a letter of consent were given to let the respondents know about the purpose and the method of the interview. If they agreed, the conversation started and recorded. If some respondent requested to be anonymous, in this paper, a code, for example I04, would be used. Otherwise, their names with the date of interview and a brief description will be given according to APA-5 reference style. Despite the focus of this study was mainly qualitative, quantitative analysis is though less statistically significant not less implicative. Thus the paper will present both quantitative and qualitative analysis of the data.

### **4 Demographic Data**

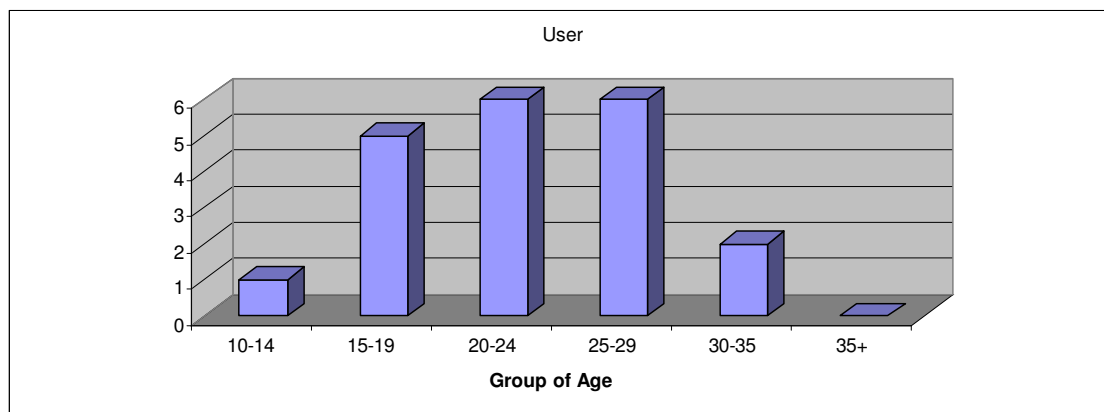
There were 16 nonusers and 20 users and half of them were female. Among the users, 18 lived in cities and 2 in communes. Of the 16 nonusers, 5 were in suburbs, 4 in agricultural villages, 4 in villages that were changing into towns and 3 moving from the countryside to cities. By region, 28 lived in the North, 1 from the Center and 7 in the South of Vietnam.

#### **4.1 Age**

The age of nonusers distributes almost evenly in ten-year groups from 25 to 71. We did not have data about nonuser below 20 of age thus would recommend further study to

explore the features of young nonusers. Users were younger than nonusers. Their age distributes almost normally from 12 to 35. Age distribution of users is shown in Figure 1.

**Figure 1 - Age of Users**



*Tuyen Thanh Tuyen, 2006*

Given the age of users, e-government projects targeting online individuals should take into account the features and demands of youth, such as education, training, job and entertainment.

#### **4.2 Income**

Monthly income per month of nonusers varies widely from VND100,000 to 4,000,000. The average income of a northern/central farmer and a student is much lower than that of other jobs (VND400,000 and 1,237,500, respectively). Other nonuser had an income comparable to that of a user. It would be necessary to remark that 1) farmers were more economic self-reliant and their incomes, such as rice or maize, were often not accounted in monetary terms; 2) 1\$US was 16,550VND in official exchange rate, yet, was about 2,826VND in purchasing power parity (in February 2006)<sup>3</sup>. Thus, farmer's actual income, if exchanged into money, could be higher. For reader's reference, 1kg of rice costs about VND 5,000 and a student's lunch was from VND 5,000.

Users, excluding students, had an income varying from VND 600,000 to 3 million per month with a mean of VND 1,216,000. A students got a monthly allowance of about VND544,000 on average. Rural users spent much less in total, but relatively high in proportion of their stipend. For instance, Nguyen Dang Phuc (personal communication, February 20, 2006) a high school student, paid VND 100,000 monthly, one third his allowance, for the Internet - a considerable amount equivalent to his monthly rice cost.

<sup>3</sup> [http://www.theodora.com/wfbcurrent/vietnam/vietnam\\_economy.html](http://www.theodora.com/wfbcurrent/vietnam/vietnam_economy.html)

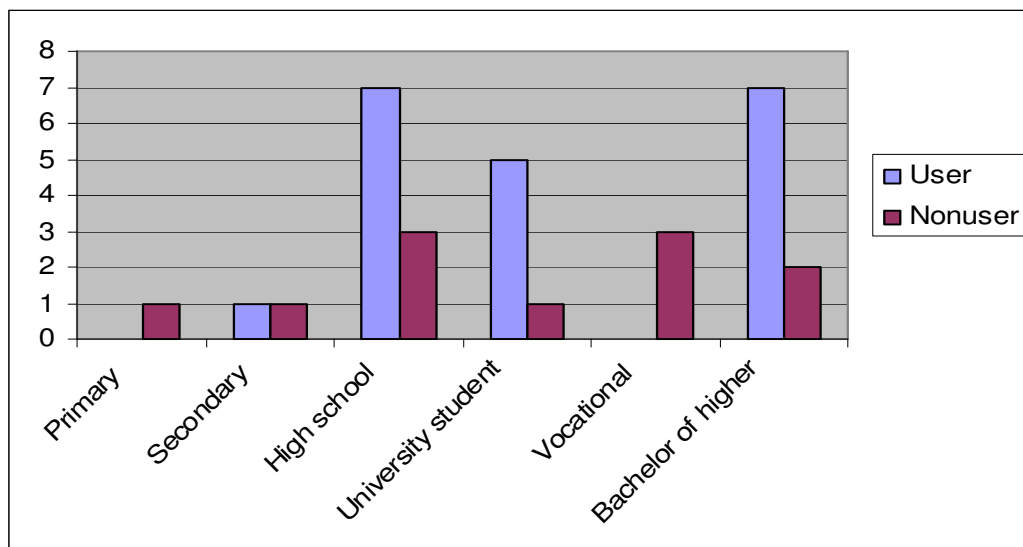
As the incomes of users and nonusers, excluding farmers, are not considerably different, we can argue that economic factor is not the only determinant to prevent people, excluding farmers, from e-government service.

### 4.3 Education

Education was pre-classified by primary, secondary, high education, vocational and higher training and others. In nonuser group, farmers had lower education (from primary to secondary levels) than the others (from high education to vocational training). In general, users had a higher educational background than that of nonusers, from high education or above. Many users obtained bachelor's degree or above.

There were nonusers who attained only primary education but there existed also ICT illiterates among high literates. Several nonusers got high school graduation, bachelor degree or were university students. Clearly, a low education clearly prevents people from using ICTs applications like e-government but a high education is not enough, too.

**Figure 2- Education background of Nonuser and User**



Tuyen Thanh Tuyen, 2006

### 4.4 Occupation

Among nonusers farmers were the biggest group consisting of 3 in the North and 3 in the South. Their main jobs were cultivating rice or aquaculture. Other nonusers were 3 folk-artists in Bacninh province, 1 owner of a large seafood restaurant in Hochiminh city, 1 director of a *Quanho* culture business center in Bacninh province and 1 student in Hochiminh city who came from the poor province of Quangtri in the Center.



Users' professions were more diversified, including student, government officer, university staff, researcher, public relation, medical doctor, guard keeper, hair dresser and a sale manager of *Dongho* folk printing.

It is likely that skilled workers tend to use ICTs more than laborers. Among nonusers, skilled people like businessman or folk-artists did not use ICTs because they got no time or interest. Other obstacles are identified in the next sections.

## **5 How Nonusers Get Information**

### **5.1 Sources of information**

Almost respondents were aware of the importance of information and knowledge to compete with the growing demands of work and life. However few people knew the actual use of ICTs or e-government. Instead, they were using other channels to get information though not all of them were effective and useful.

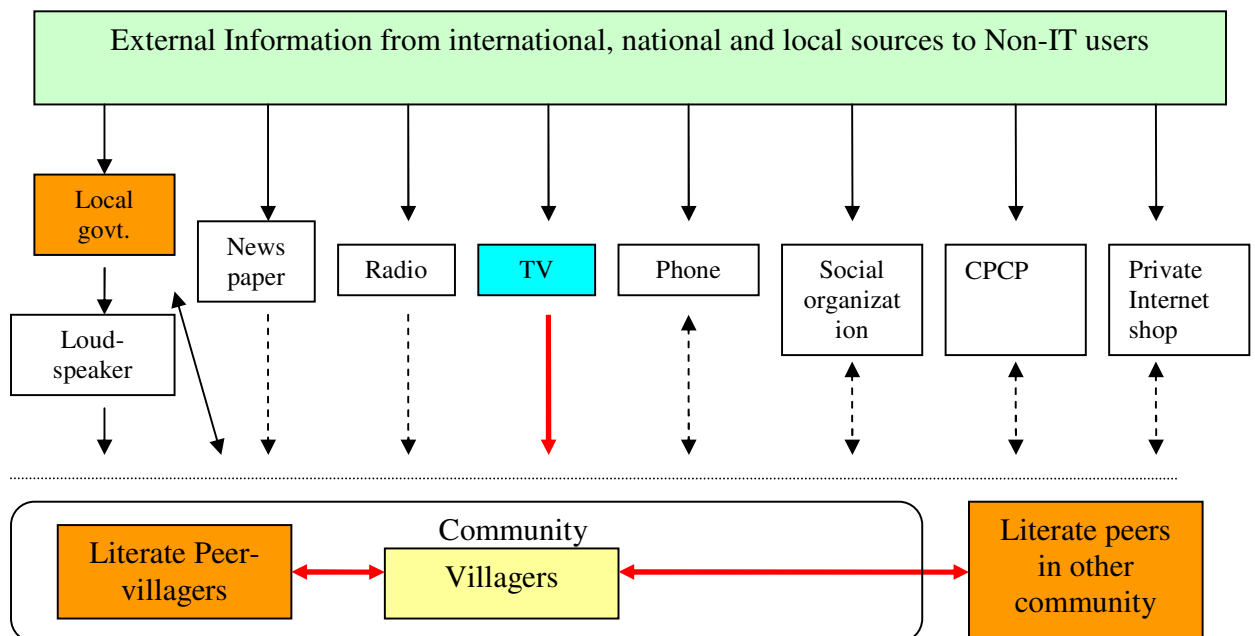
Some years ago, loudspeaker was identified as the major channel of information to farmers (Smith, Toulmin, & Qiang, 2003; World Bank., 2002). Our study shows that loudspeaker lost its leading position. As depicted in Figure 3, the major channels are:

- **Television and peers** (people who lived, worked or studied near by) overtook loudspeaker to be the top sources of information. When TV provided various kinds of general information, peers gave specific knowledge, such as job availability, working know-how or learning-related information.
- **Loudspeaker system** in commune still existed but was less important. Through that channel local authority announced local guidelines or government regulations to the people e.g. hygiene cleaning, farming schedule, health or vaccination time table. Nevertheless, information from loudspeaker was often less attractive and very narrow (Ngo The Bang, personal communication, February 25, 2006). Furthermore, the transmission time was very limited and often conflicted to the availability of villagers who were usually busy to work a second job (I37, personal communication, March 7, 2006).
- **Newspaper and books** were rarely read by most non-ICT users, except residents in urban areas (e.g. Ngo The Bang and Hoang Thi Tuyet in Dapcau town, and Dang Thi Minh Loan, a student in Hanoi, I53 in Hochiminh city).
- **Radio:** Only two interviewees (Ngo The Bang, personal communication, February 25, 2006 and I37, personal communication, March 7, 2006) claimed that radio was a source of information but they often had few time to listen to.
- **Communal government and social organizations** (e.g. Farmer's Association, Women Association or Veteran Association): social organizations sometimes organized meetings to provide villagers with information. Almost respondents claimed that they did not have time to attend (I37, personal communication, March 7, 2006; Vo Van Hoa, Nguyen Van Hac and Pham Van Lap, personal communication, April 7, 2006). In addition, communal authorities supported farming promotion associations to disseminate information prepared by

agriculture departments to farmers such as how to raise cow or goat or to get loan. However, farmers did not get much benefit from these activities because the procedure was very cumbersome (Vo Van Hoa, Nguyen Van Hac and Pham Van Lap, personal communication, April 7, 2006).

- **Telephone:** thanks to the expansion of public telecom infrastructure, more households possessed telephone set, mainly fixed phone (Dang Thi Minh Loan, personal communication, 24 February 2006 or I36, personal communication, March 7, 2006), through which they could exchange information about market or job with their peers.
- **Computer and the Internet:** to all nonusers those technologies were something far away. One of the reasons was because they did not know what benefit the new technologies could bring to them (I37, personal communication, March 7, 2006).
- **Communal Post and Cultural Points:** According to Vietnam Posts (Vienampost, 2006), as a joint initiative between the Ministry Posts and Telematics and Ministry of Culture and Information, about 8,000 *Communal Post and Cultural Points* (CPCP) with Internet and telephone connection were set up in the total of 10,782 communes. That initiative was an effort to enable villagers in poor and remote areas to access to ICTs. Unfortunately, we did not record any feedback about that system in our study. More study should be conducted to see the actual effectiveness and efficiency of this channel as the coverage of only one point per a large commune with thousands of households could be not adequate.

**Figure 3- Main Sources of External Information**



Tuyen Thanh Nguyen, 2006



Literate peers or neighbors played an important role in providing new knowledge as the closeness in terms of geography and content of that source of information to nonusers. With peers, they can seek the most necessary information conveniently, informally and they can check if the knowledge they receive can be usable or not. From other perspective, that trend can be interpreted that if some years before, general information from TV or loudspeaker could have been adequate, now farmers need more specific and practical knowledge for working or living rather than traditional media do not keep pace.

## **5.2 Obstacles to e-government**

It was the most difficult for farmers to access to the Internet, therefore, to e-government services. Many farmers who even lived next door to cables of the Internet, TV and telephone in Bacninh or Haiphong did not use these services. Besides providers' challenges, major weaknesses from the nonusers' side were not resemble to everybody but varied by profession, living areas, age and economic status.

Firstly, the unaffordable cost of ICTs is a forbidding barrier to farmers. In the North, the income from farming was too low, about VND 100,000 a month (US\$ 6) compared with Internet installation fee from VND 80,000 to 470,000 (Hoang Thi Tuyet, personal communication, February 25, 2006, Nguyen Thi Tuyet, personal communication, March 7, 2006, Ngo The Bang, personal communication, February 25, 2006) or cable TV subscription fee at VND55,000 a month (I37, personal communication, March 7, 2006). In the South, Vo Van Hoa, Nguyen Van Hac and Pham Van Lap (personal communication, April 7, 2006) claimed that "only rich family can afford to buy a computer at 3.5-5 million VND. (...) Many households are very poor or live in slum."

Secondly, the gap in infrastructure availability between urban and rural areas became larger. Meanwhile the telecommunication infrastructure, including Internet, telephone, cable TV, quickly developed and became more available in urban areas, in communes like Dongho in Bacninh province or Nhanbinh in Longan province, Internet service was not available. The nearest Internet shop to Nhanbinh, for example, was 7km away. Students at secondary or high schools were not taught computer because there was no computer lab there (Vo Van Hoa, Nguyen Van Hac and Pham Van Lap, personal communication, April 7, 2006).

In regards to subjective difficulties, time constraint was often heard. Farmers claimed they were very busy to do a second job to get more income (Dang Thi Minh Loan, personal communication, February 24, 2006, Nguyen Thi Tuyet, personal communication, March 7, 2006). They also argued that their education limitation, such as English and business skills, prohibited them to use the Internet (Dang Thi Minh Loan, personal communication, February 24, 2006). Consequently, farmers were reluctant to use the Internet because they did not know how to use it (Vo Van Hoa, Nguyen Van Hac and Pham Van Lap, personal communication, April 7, 2006). Especially, farmers did not see potential benefits of the new technology. "Works at commune are often simple, do not require technology. The Internet is something faraway. We do not know which benefits



ICTs can bring about to us”, argued Nguyen Thi Tuyet (personal communication, March 7, 2006).

While most elder nonusers said that they would refuse to use the Internet, younger persons appeared more active in approaching ICTs. Many kids were observed surfing the Internet in net-shops in communes. Though being more enthusiastic to the new technology than elder, psychological reluctance was likely more difficult for juniors to overcome. Shy and timidity stopped many interviewees for the first trial of a new technology like the Internet. Dang Thi Minh Loan revealed:

The feeling of a person who never uses the Internet is very shy (...) Although I already know the Internet is a new channel rich of diversified information and there is an Internet shop next door, I dare not to try. (Personal communication, February 24, 2006)

Fortunately, if they were asked to try the Internet by a peer, they could pass that adverse feeling, as I53 ) recalled: “I used computer for the first time thanks to some friends who often went to Net shops asked me to go with them” (personal communication, April 6, 2006).

When almost all farming respondents did not have the intention to use the Internet or computer, some expressed that they might encourage their children to use ICTs in the expectation that their children could learn the emerging technology. Along these lines, Ngo The Bang (personal communication, February 25, 2006) bought a computer set for his son who studied in Hanoi. Similarly, old artisan Nguyen Dang Che asked his children to set up a website to marketing his *Dongho* printings in the Internet.

In summary, nonusers are visibly less disadvantageous than users in receiving e-government services. Many of them are farmers in the countryside where more than 60 million Vietnamese people are living (General Statistics Office of Vietnam., 2006). Main obstacles to them are limited education, low awareness and literacy of ICTs, low income, old age, timidity and the availability of e-government services and telecom network.

## **6 In the Wired World**

This section presents major features of and obstacles to online users in Vietnam, including frequency, experience, access place, education and purpose of online activities.

### **6.1 Online Time**

**Table 1 - Usage Time**

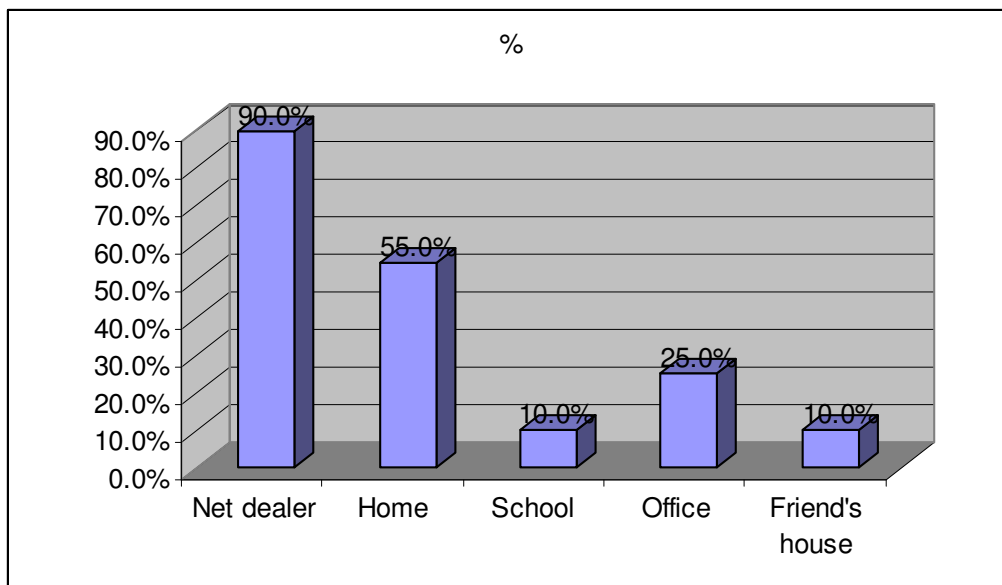
	City	Rural
Average year of using a computer	8.9	2.0
Average year of using the Internet	5.7	2.0
Average weekly using hour	23.6	6.8

Maximal weekly using hour	56	8
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There is a clear difference of using time between rural and urban users. Users in city had longer experience with computer and the Internet than counterparts in countryside (8.9 years and 5.7 years vs. 2.0 years and 2.0 years, respectively). In terms of using hours per week, the former also used at least three time more than the later (23.6 hours vs. 6.8 hours, respectively). Many users were computer players who spent much more time with the Internet than general users, with a mean of 47.4 hours per week (about 7 hours per day). Phan Manh Tien, a player of grade 12 even claimed that sometimes he played 20-22 hours a day (personal communication, January 24, 2006). Youth exposed to computer and the Internet from very early, for example, the 12 year old I33 (personal communication, March 6, 2006) disclosed that he had exposure with a computer for 3 years. Some even used computer before going to primary school, as revealed by Nguyen Phung Anh, a gamer in Hanoi (personal communication, January 24, 2006). Data of time usage is shown in Table 1.

## 6.2 Access Point

Figure 4 - Access Place



5 main sources of Internet access listed in descending order of use frequency are: net shop, home, office and school and peer's house. Net shops (other names: net cafe, Internet dealer or Internet service center) were the most popular places where users could come to play game, chat, surf the net or make an international VoIP call with very low rate, only VND 2-3,000 per hour. Those places were usually full of students from near-by schools. 90% respondents used computers in such places.



More than half of people used home computer (55%). This is a new phenomenon if we recalled that computer had been a luxury to family just few years ago. A quarter of people used office computer (25%). Two teenagers claimed that they retrieved the web from their friend's house. Sadly, schools did not play much role in providing computer and Internet service to the people (only 10%). Some school even prohibited students from using the Internet. Nguyen Dang Phuc, a student of high school in Ho town (personal communication, February 20, 2006) revealed:

Many students dare not go to net cafes either because they don't know about IT or their teachers forbid. My school also prohibits students to use the Internet because using of the Internet means playing games or accessing to bad websites. My school expelled several students who went to net cafes.

Nobody claimed that they had access the Internet from VNPT's communal posts and cultural points. Figure 4 presents the access place of users.

### 6.3 Usage

To answer the question "What are the primary purposes for which you use the Internet/ICTs?" 10 top activities were identified in Table 2. None of them related to e-government subject. 90% users had at least a Yahoo email account though they did not spent much of time on. ICTs purposes listed in the most-mentioned order are: chatting, online multiplayer games, news or information, online music, downloading educational materials, solo games, work, other entertainment, creating online content, making friends and relaxing. It is noted that although several data in Table 2 may resemble one another, for example, the rates of high school students down loading music, news and studying online, it is simply because of the small size of the sample.

**Table 2 - Top Ten Most Popular Activities and Education (%)**

Purpose	Pool	Rural	Urban	Data from this study			
				2nd school	High school	Univer sity student	Bachel or or higher
Email	90.0	100.0	88.9	100.0	85.7	100.0	100.0
Chat	60.0	50.0	61.1	0.0	85.7	80.0	28.6
Multiplayer game	55.0	0.0	61.1	100.0	42.9	80.0	42.9
News & information	50.0	50.0	50.0	100.0	42.9	60.0	100.0
Music	35.0	0.0	38.9	100.0	28.6	60.0	42.9
Study	35.0	50.0	38.9	100.0	14.3	60.0	42.9
Solo game	25.0	100.0	16.7	0.0	42.9	0.0	28.6
Work	25.0	50.0	22.2	0.0	14.3	0.0	71.4
Other entertainment	15.0	0.0	16.7	0.0	0.0	0.0	42.9



Create online content	10.0	50.0	5.6	0.0	14.3	20.0	0.0
Group/total	100.0	10.0	90.0	5.0	35.0	25.0	35.0
N= 20							

#### **6.4 Usage and Education**

The usage purposes are different between those who had high education and those who had not. University students were the most active online users who exploited many functions of computer and the Internet such as email, chat, multiplayer game, then for study, online music and searching news and information with high rates. One university students created online content as a super moderator of an online forum. High school holders used less sophisticated applications such as emailing and chatting, then multiplayer or solo games, news and information and other activities. Many male high school students played truant from school to play game at net shops. Bachelor's degree holder spent less time on chat, computer games than others but more for work, study, news and information. The data of secondary school students was too little as only one student was interviewed. However, his data suggested that people with low education background used computer with more simple activities, such as entertainment or study

#### **6.5 Usage and Other Factors**

Besides education, the online behavior of the users was also affected by other dimensions such as gender, experience, hobby and living location.

Firstly, male users spent more time on chat and multiplayer games than female who likely spent more time to search for news and information, play solitary gamed, entertainment, study and work. In searching news or information, male users looked for political, sport or lottery information while female users spent more time on social, business and IT or on women or children topics. However, both genders resembled in emailing, listening to online music. The majority of users did not chat with a stranger but merely with old mates. Several male users made friends with unknowns. This finding is somewhat similar to the features of American online male and female users in 2001 (Howard, Rainie, & Hones, 2001).

Secondly, experience influenced the way people used ICTs. Similar to American users (Lebo et al., 2004), very experienced Internet users (with 5 years or more experience) spent the largest time dealing with email, instant message, multiplayer games, more specific news and information and professional work while new users (with 2 years or less) spent most time in emailing and chatting, followed by surfing information, offline or solo games and music.

Thirdly, people with different ages used computers differently. Elder people spent less time in chatting than younger. Other cofounders, for example, marital status or family duties, may limit people to be online. Dong Trung Kien, a medical doctor, explained why he seldom chatted in interview: "Before marriage I chatted a lot. Now I seldom enter a



chat room except when I chat with my sister overseas." (personal communication, March 6, 2006).

Lastly, the distinction in the simplicity of rural users' in comparing with urban users' somewhat reflects the social divide among the wired Vietnam. While urban residents explored diversified online activities, rural users only had simple actions such as email and chat. They also spent much of their time for offline game due the low quality of connection.

### **6.6 External Challenges**

Despite the increasing development of local e-newspapers and publications in Vietnam recently, interviewees still complained the quality and poverty of Vietnamese content. Dong Trung Kien (personal communication, March 3, 2006) remarked: "the Internet does not change much of my working style because when I need a professional document, I have to search in foreign websites." In addition, Nguyen Phung Anh (personal communication, January 24, 2006) adduced: "Information in Vietnamese websites is not always most updated."

In relation to infrastructure, most users (except users in Hanoi and Hochiminh cities) complained about the poor telecommunication infrastructure. Even in a big city like Haiphong, a major harbor 100 km east to Hanoi, users were discontent with the service. "The connection is often disrupted", said Dong Trung Kien (personal communication, March 3, 2006). In rural areas, the infrastructure was even worse in both of coverage and quality. Nguyen Dang Phuc (personal communication, February 20, 2006), in a rural net shop in Bacninh province, 30 km north east to Hanoi, exclaimed "the connection in rural net shop is very slow. Many times I wanted to send a message but had to drop since waiting so long."

Last but not least, the way the government controlled the Internet was a critic of many respondents. Nguyen Phung Anh (personal communication, January 24, 2006), for example, explained: "The requirement of the government for security purpose, such as showing identification card when entering an Internet shop, is neither relevant nor manageable." Doan Minh Nam (personal communication, March 6, 2006), an owner of a Net cafe in Haiphong shared this idea. Vietnamnet, a popular Vietnamese online newspaper argued that no Internet dealers could avoid violating the Circulation No. 02/2005/TTLT-BCVT-HHTT-CA-KHDT on management of Internet dealer. Such regulation was not only cumbersome, unrealistic but also restricted children under 14 from using Net cafes (Vietnamnet 19/07/2006).

Challenges caused by technologies, providers and governments were the burdens to users who were not always skillful with the new technologies. In comparison with users in developed countries, the complex level of online applications of Vietnamese people was clearly lower. While the Vietnamese online users spent most of their time for simple applications like email, chat and game, American users exploited the web with more



sophisticated activities such as shopping and buying online, searching for health or travel information, tracking credit cards, banking or paying bills (UCLA, 2004 or Fallow, 2004). The diminution of threats and challenges would encourage people access more to the Internet and use e-government applications. In addition, overcoming users' internal weaknesses which severely restrict the full effectiveness of e-government is not less important.

### **6.7 User's Weaknesses**

Five major obstacles from the user side were found, namely the illiteracy of English, technological and social skills, economic affordability and the disadvantages of rural people.

Firstly, English, the Internet dominating language, was a great barrier to majority of Vietnamese users. That's why a normal user like Nguyen Phung Anh (personal communication, January 24, 2006) adduced: "Foreign websites keep updated instantly but you need to be good at English." Even Vietnamese intellectuals admitted that they had that problem. Do Thi Hang of the Hanoi University of Social and Human Civilization (personal communication, January 24, 2006) claimed "I do not know much of English, especially technical terms." Dong Trung Kien, a doctor of Haiphong Preventive Healthcare Center explained why he only read Vietnamese websites, as "It is compulsory to know English to read professional document in the net. Therefore, I only enter Vietnamese websites." (personal communication, March 3, 2006)

With the Internet literacy takes on greater importance, as it is mostly text based (Tigre & O'Connor, 2002) and typically in English. Therefore language becomes an issue (De Boer & Walbeek, 1999; Palmer, 2000). Salman (2004) argues that these content related barriers need to be seriously addressed. For instance, China and Russia only experienced significant growth in Internet users once content was provided in Chinese and Cyrillic (Cullen, 2001).

Secondly, users had difficulty in searching needed information because they did not have operational skills, firstly searching technique. I04 complained: "It takes much time to find necessary information if the connection is not speedy and we don't know appropriate keyword." In addition, users expressed their concerns about Internet security, such as virus, spam (Nguyen Minh Thu, personal communication, January 25, 2006; Do Thi Hang, personal communication, January 24, 2006; Dong Trung Kien, personal communication, March 3, 2006 and Vu Phuong Giang, personal communication, January 24, 2006) or being hacked (Tran Thien Toan, personal communication, April 5, 2006).

Thirdly, social skills including the self awareness and the ability of adolescents, the major users of the Internet in Vietnam, were worrisome. Unhealthy content of the net, such as erotic websites or the like, may badly spoil the personality of adolescent, those who often have limited social knowledge and experience become bewildered accessing the enormous information in the Internet, may not adjust themselves bad



information. That can have negative impact on their personality development.  
(Tran Thien Toan, personal communication, April 5, 2006)

Fourthly, while rural nonusers were reluctant to use the Internet due to financial shortage, in fact it turned out to be not a big problem to users. Numerous private net cafes appeared in all cities and towns in recent years made the Internet affordable and accessible to all users. I03 (personal communication, January 20, 2006) affirmed that "the cost of using the Internet at Net shops is not a problem". However, if they used too long for gaming, the financial burden would not be small. We thus argue that Net cafes should be one of the best points to provide e-government services.

Finally, the effectiveness of ICTs in helping rural villagers in their business is not visible because they were more disadvantageous than their urban counterparts in many aspects: financial inadequacy, availability of technology and training, social and digital skills, etc. Rural students have more difficulty accessing the Internet than their counterparts in the city as revealed by Nguyen Dang Phuc "In the net cafe, many students only use the applications like chat or email which have already been installed by the net shop manager. They don't know how to access a website or how to search for information" (personal communication, February 20, 2006). Farmers lacked IT literacy simply because there was no IT training available in their region. I23 explained:

Our IT literacy is limited. In rural areas, even if we want to learn IT, we do not have much chance. There is no IT training center in my district but only in Hanoi and Bacninh. How can I arrange my time to study there and to work here as well as to look after my children?

In summary, the difficulties from user side, excluding financial problem, all relate to skills and experience that can be ameliorated with education, training and communication propaganda.

## **7 Discussion**

As online users and nonusers are not identical, e-government approaches to them should at least consist of two versions. The first version is for the 12 million online users and the second for the 70 million nonusers. By approaching each group properly government can help citizens overcome the obstacles in receiving public services.

First of all, nonusers have much more difficulties than users in the possibility to receive electronic services from the government. Thus besides considerations to users below special considerations should be taken to make nonusers, bit by bit, familiar with electronic transaction and administration. As a prerequisite, to be a direct beneficiary of e-government, a nonuser must become a user. They should be aware of the importance of ICTs and the Internet, lately e-government. Therefore, programs to raise awareness on ICTs and the Internet among nonusers via mass media, particularly through TV channels are very important. Special attention is needed to young nonusers who are more likely want to approach to new technology. Young people should be encouraged to get familiar



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with the Internet and online public services. Pilot projects such as the VDC's WiMax test in Vanhoa Secondary School in Laocai in October 2006 where student had the first chance to approach to computer and the Internet (Hai Hung., 2006) should be encouraged in other places. Such activity will help youth overcome the psychological timidity of the first trial to get used to ICTs. At the national scale, ICTs literacy could be given in schools, ICT training centers and TV programs so that students and needed persons can come up to the technology.

Nonusers can also be indirectly beneficial from public services through channels other than the Internet. As shown in Figure 4, nonusers can receive public services or information from peers, family relatives or communal authorities who have more chance to access to e-government websites. These services must meet the very concrete demands of people in each locality, such as land/house registration and disputes, denouncement of governmental corruption, the current hottest topics the Vietnamese public often pose to the authorities. In the worldwide, e-government projects such as Online Dispute Resolution, the emerging set of tools and techniques for resolving disputes online, can successfully resolved half million disputes per year (Tyler & Bretherton, 2004).

To users, given that the majority of them are young, well-educated, initiatives of e-government should be relevant to them, firstly to satisfy their needs in education and job.

Firstly, public services need to satisfy young people's demand in education and jobs. The first thing the government can do is to legalize the validity of electronic application forms and allow the youth to down load them from government websites rather than buying paper-forms from authorities. That simple activity could save much logistic workload from government agencies as well as clear the red tape of these organizations upon the people. Vu and Jones (2006) argued that "Before investing resources and time in new online services or initiatives provinces should ensure they have done all they can do with their current infrastructure, such as ensuring forms are available for download..." .

At the moment <http://moet.gov.vn>, the website of Ministry of Education and Training provides information to students, from news, legal document to examination plan and student's score. If students and their parents could also down load training and education related application forms such as enrolment, resume to university exam application and education books from grade 1 to 12 that all 20 millions Vietnamese students need, it would save much of time, paper and money for all parties.

Similarly, we recommend that <http://www.molisa.gov.vn/>, the website of Ministry of Labor, Invalids and Social Affairs, provide all job-related application forms and launch online forums on job opportunities and required skills. At the provincial level, if departments of education and training and departments of labor, invalids and social affairs establish websites, we would suggest more concrete contents on education, training and job be prepared to meet the exact demand of each locality. This activity would be much more beneficial, thus, attractive to the users than general introduction or news quoted from other newspaper as governmental websites often do. From this one-



way provision of information, government websites can go further to accept the submission of applications online.

We also recommend more awareness enhancing programs on e-government to inform citizens about the existence of e-government websites and online services available. These programs can be transferred to the people through popular channels such as television. It is important to equip users with ICTs skills as searching e-government services in the Internet. There would be necessary also a Vietnamese searching tool to help the users who, as shown above, have trouble in finding needed information. Jaeger & Thomson claimed that an e-government system would fail if the government did not take active role in educating citizens about the value of e-government (Jaeger & Thomson, 2003).

To provide e-government services to users in rural and poor areas, much more work is needed. The importance of two-way channels of information, including of telephony, professional associations and especially peers are extremely important to villagers and should be encouraged properly. Local governments play a critical role in promoting those channels as well as potential Internet access points, such as communal post and culture centers or private internet shops. Farmers, especially those in the north, center, highland and mountainous area, have very-low revenue. As telecom and Internet fees are still high, a policy to reduce or subsidize telecom tariff as well as other measures to encourage them to use the Internet are recommended. Cecchini & Raina asserted that e-government projects imperatively need the collaboration of the local staff which reduces the gap between technology and the reality of social context and create a sense of local ownership. "The local administrative and political actors need to be involved in the implementation of the project. Otherwise, the likelihood of failure increases dramatically (Cecchini & Raina, 2004).

Finally, the availability of technology including the presence of telecom network in communes and the existence of Internet access point is essential to hand information to the people. For that purpose, the role of net-cafes with their high prevalence and low cost, should be taken into consideration in e-government strategy and programs. Clusters of the e-government projects + governmental authorities + communal posts and cultural points + net-cafes are possibly prominent channels in providing government services to citizens. In that approach, computers in net-cafes with their wide presence in the country may have government websites with some simple guide to users.

## **8 Conclusion**

The society of Vietnam is transforming into a networked society where more people are becoming connected and more sophisticated applications, such as e-government, are available. Compared to young, dynamic and well educated users, nonusers are more disadvantageous in accessing e-government services. We, therefore, argued that to provide e-government to the people, first of all, they need to turn into users. People should be get acquaintance to computer and improve IT literacy. We also recommended



that for poor and disadvantageous areas and for farmers, special measures more than simple communal posts and cultural points should be taken. People should be given a chance to use the Internet via accessing points, clustering private Net-cafes and public communal posts and cultural points where government websites with relevant content and services can be accessed.

Certainly, to provide qualified virtual government services to citizens, the availability of technology, services and skills are not enough. Could a good virtual government exist without the strong, accurate and speedy capacity of a real government as well as the ICT capacity of each government officer to deal with the new electronic administration environment or what are other necessary and adequate conditions to bring down more government services to Vietnamese citizens? We expect future studies can answer these questions.

## Bibliography

- Cecchini, S., & Raina, M. (2004). Electronic Government and the Rural Poor: the Case of Gyandoot. *Information Technology and International Development*, 2(2), 65-75.
- Cullen, R. (2001). Addressing the digital divide. *Online Information Review*, 25(5), 311-320.
- Dada, D. (2006). The Failure of E Government in Developing Countries: a literature review. *The Electronic Journal of Information Systems in Developing Countries*, 26.
- De Boer, S. J., & Walbeek, M. M. (1999). Information technology in developing countries: a study to guide policy formulation. *International Journal of Information Management*, 19(3), 207-218.
- General Statistics Office of Vietnam. (2006). Average population by sex and by residence. November 15, 2006, from [http://www.gso.gov.vn/default\\_en.aspx?tabid=467&idmid=3&ItemID=4704](http://www.gso.gov.vn/default_en.aspx?tabid=467&idmid=3&ItemID=4704)
- Hai Hung. (2006). Thử nghiệm WiMax không đơn thuần là công nghệ [WiMax test is not simply technology] [Electronic Version]. *Vnexpress*. Retrieved October 31 from <http://vnexpress.net/Vietnam/Vi-tinh/2006/10/3B9EFDD4/>.
- HCA. (2006). Toan Canh CNTT Vietnam 2006 [Vietnam ICT Outlook 2006]. Retrieved July 28, 2006, from [www.hca.org.vn/tin\\_tuc/hd\\_hoi/nam2006/thang7/vio2006/baocaotoancanh\\_2006.pdf](http://www.hca.org.vn/tin_tuc/hd_hoi/nam2006/thang7/vio2006/baocaotoancanh_2006.pdf)
- Howard, P., Rainie, L., & Hones, S. (2001). Days and nights on the Internet: The impact of a diffusing technology. In B. Wellman & C. Haythorthwaite (Eds.), *The Internet in everyday life* (pp. 45-73). Oxford: Blackwell.
- Jaeger, P. T., & Thomson, K. M. (2003). E Government around the World: Lessons, Challenges, and Future Directions. *Government Information Quarterly*, 20(4), 389-394.



- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2006). Governance Matters V: Governance Indicators for 1996–2005. from <http://web.worldbank.org/WBSITE/EXTERNAL/WBI/EXTWBIGOVANTCOR/0,,contentMDK:20771165~menuPK:1866365~pagePK:64168445~piPK:64168309~theSitePK:1740530,00.html>
- Lebo, H., Cole, J. I., Suman, M., Schramm, P., Bel, D. v., Lunn, B., et al. (2004). The UCLA Internet Report: Surveying the digital future, year four: Ten years, ten trends. Retrieved July 4, 2006, from <http://www.digitalcenter.org/downloads/DigitalFutureReport-Year4-2004.pdf>
- Palmer, J. J. (2000). Internet access in Bahrain: business patterns and problems. *Technovation*, 20(8), 451-458.
- Smith, P., Toulmin, L., & Qiang, C. Z. W. (2003). In-Focus: ICT in Vietnam - Accelerating ICT Development in Vietnam. *I-Ways, Digest of Electronic Commerce Policy and Regulation*, 26 31-40.
- Thi Bich Hoa Pham. (2005). Vietnam E-Government Overview: A Survey of Government Websites. In H. C. Association (Ed.), *Vietnam IT Overview 2005*. Hochiminh: Hochiminh City Computer Association.
- Tigre, P. B., & O'Connor, D. (2002). Policies and Institutions for E-Commerce Readiness: What Can Developing Countries Learn from OECD Experience? *Technical Papers No. 189* Retrieved January, 2005, from <http://www.oecd.org/pdf/M00028000/M00028358.pdf>
- Tuyen Thanh Nguyen. (2001). Tổng quan về chính phủ điện tử [Overview of electronic government]. In D. M. Giao & N. C. Hoa (Eds.), *Tin học hoá quản lý nhà nước ở Việt Nam và mô hình chính phủ điện tử [Computerization of state administration in Vietnam and the electronic government model]*. Hanoi Office of Government, Defense Publishing House.
- Tyler, M. C., & Bretherton, D. (2004). *Lessons for eGovernment: Online Dispute Resolution*. Paper presented at the the Australian Electronic Governance Conference 2004, Melbourne.
- Vienampost. (2006). Điểm bưu điện văn hoá xã: một điểm sáng ở nông thôn [Communal Post and Cultural Center- A bright spot in countryside]. *Vietnam Posts* Retrieved June 11, 2006, from <http://vietnamgateway.org/vanhoaxa/dbdvhx.php?action=thongtin&chuyenmuc=0901&id=060103160035>
- Vietnamnet. (2006). Đại lý Internet công cộng: không vi phạm mới lạ [Public Internet dealer: how can not violate] [Electronic Version]. *Vietnamnet*. Retrieved July 19 from <http://www.vietnamnet.vn/cntt/206/07/592721>.
- Vu, K. M., & Jones, R. (2006). VNCI Policy paper #7: E-GOVERNMENT AND BUSINESS COMPETITIVENESS: A POLICY REVIEW. Retrieved November 1, 2006, from <http://www.vnci.org/default.asp?act=Download&downloadID=57>
- World Bank. (2002). *Accelerating Information & Communication Technologies Development in Vietnam*.