ABSTRACT
In this paper the maturity of Vietnam’s massive multiplayer online role-playing games (MMORPGs) is used as evidence to illustrate the structure contradiction between two objectives of the Vietnamese government: the objective to support local information technology (IT) industry, and the objective to control online gaming. The contradiction in these two objectives shows the paradox in socio-technical developmental trajectory in Vietnam, when the government, on the one hand, is trying to facilitate domestic technological capacity, on the other hand is suppressing one of the most dynamic technology sectors like the MMORPGs.

Categories and Subject Descriptors

General Terms
Economics, Human Factors

Keywords
Massive multiplayer online role-playing games (MMORPGs), Vietnam, government control, online restriction

1. INTRODUCTION
Being the first Asian nation to host World Information Technology Forum in year (WITFOR) 2009, Vietnam was proud to show the world what the country has got to be the next global emergence IT production hub. The Vietnamese authorities’ take this opportunity advertises the domestic IT industry and seeks international investors and/or partners to come to Vietnam [5]. This event was hold with a good timing, as considering the event was at the end of Directive 58 – the effective official IT plan in Vietnam.

After a long struggle with a series of wars, Vietnam is now under a full-power economic revolution program to catch up with the global economy, with its mission to become modernised and industrialised by 2020. The IT industry, has become one of the strategic technology industries for Vietnam to achieve this mission. Additionally with great support from the government to facilitate the growth of the domestic IT industry, Vietnam’s technology firms have played a significant role in the enhancement of the domestic technological capacity especially given Vietnam’s situation as a technologically backward society, where technology infrastructure is still lagging behind, and the role of public R&D agencies is still minimal. However, having an enormous impact on technology development can jeopardise the technology firms even in the country where technology development is a high priority like in Vietnam, when technology products are viewed as social threat rather than youth pop culture and technological hero.

2. A Quick Glance at Vietnam’s Online Game Industry
In 2009, the government of Vietnam first published an official statistics report on the development of Vietnam’s Information and Communication Technology (ICT) Industry; it is called ‘The White Book on Vietnam ICT 2009’. The Minister of Information and Communications, Dr. Le Doan Hop, stated that obtaining accuracy statistics is a tough job to do in Vietnam’s ICT industry [7]. This is due to the fact that the industry is growing with a fast pace and very highly socialized [7]. This statement might illustrate the shortcomings and challenges in obtaining the official and trustable sources of Vietnam’s online gaming industry statistics. However, this does not mean there are no available related statistics that would allow us to explore the growth and economic contributions of Vietnam’s online gaming.

2.1 The Revenue
In this section the growth and economic contribution of Vietnam’s online gaming will be viewed though the lenses of the sector revenue within the context of digital content industry and.

The government of Vietnam has officially divided its domestic IT industry into three sectors: hardware; software and digital content industries. Online gaming is a major business that contributes to the growth of digital content. This conclusion is drawn from the official report [7][8] when mention about the business areas that the digital content industry covers and the major leading enterprises in this industry mention online gaming as their main scope of business.

Table 1. Revenues of Vietnam’s IT Industry in Three Sub-Sectors, Year 2008 and 2009 (Million USD)

<table>
<thead>
<tr>
<th>Industry</th>
<th>2008</th>
<th>2009</th>
<th>Growth Rate of 2009 (%)</th>
</tr>
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From table 1, Digital content’s share in the whole IT industry is the smallest industrial share, however; it possesses the highest growth rate out of the three industries. Furthermore, even the hardware industry is the biggest contributor to domestic IT industry revenue; it pays the lowest wage per person out of the three.

Table 2. Numbers of Workers, Revenue and Wage per Worker, Year 2008 and 2009

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of Workers (Person)</th>
<th>Revenue per Worker (USD/Person/Year)</th>
<th>Wage per Worker (USD/Person/Year)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2008</td>
<td>2009</td>
<td>2008</td>
</tr>
<tr>
<td>Hardware</td>
<td>110,000</td>
<td>121,300</td>
<td>37,200</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>38,145</td>
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<td></td>
<td></td>
<td></td>
<td>1,440</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1,809</td>
</tr>
<tr>
<td>Software</td>
<td>57,000</td>
<td>64,000</td>
<td>12,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13,281</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3,600</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4,250</td>
</tr>
<tr>
<td>Digital Content</td>
<td>33,000</td>
<td>41,000</td>
<td>13,300</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16,829</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>2,820</td>
</tr>
<tr>
<td></td>
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<td>3,505</td>
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Table 3 shows the market revenue of online gaming in Vietnam. Even the numbers are crude; they provide the picture of how much online gaming contributes to digital content industry. Online Gaming in Vietnam took around 15% and 16% of the total digital content market revenue in 2008 and 2009 respectively. Furthermore, gaming is the business that generates other types of digital content and services, for example, a social network, ang blogs.

To conclude the emergence of Vietnam’s digital content industry is young and small but powerful in the sense of economic distribution.

3. Online Gaming as Technology Hero and Social Evil, and the Government Reactions

3.1. Online Gaming as Technology Hero

To observe the evolution of MMORPGs in Vietnam, Vinagame Join Stock Company (now changed to be VNG Cooperation, thus hereafter VNG) is employed as a case study. VNG is found by five hardcore gamers back in 2004 [the VNG site], and only started their business by licensing and localising imported MMORPGs from China. The Swordsman online, the Vietnamese name ‘Vo Lam Truyen Ky’, is the first MMORPG in Vietnam, and was introduced to Vietnam in 2005 by VNG. The game was developed by a Chinese software company and was monopolised for VNG as the only distributor in Vietnam [18].

Despite starting only as a local licensed distributor, four year later VNG has thrived extensively. In 2008, government official statistics showed that VNG’s market revenue was 41.0 million USD [7]. Referring to table 3, the importance of VNG in Vietnam’s online gaming market can be seen. The company’s market revenue presents 61% of the total online gaming revenue in that year, thus VNG is a validity case to represent the impacts of online gaming business on Vietnam’s domestic technology development.

The prosperity of online gaming is not only benefited by game companies. The online gaming has created favor conditions for the development of ICT infrastructure. In more details, it could be seen that the online gaming business could not started if the country does not have a decent broad-band Internet service. On another hand, the nation’s technological development has been drove by this progressively more. The MMORPGs are consumed notably though Internet rooms across Vietnam [13]. This has increased the number of Internet rooms across Vietnam [Le Hong Minh, personal communication], and eventually increases the rate of County’s Internet penetration. From the Interview Mr. Le Hong Minh, one of VNG’s founders now chairman and chief executive, mentioned that in 2004, where the company first started, there were about 5,000 Internet rooms in Vietnam. Then in 2009, the numbers are around 30,000 [Le Hong Minh, personal communication].

The pace of penetration has been skyrocketing, reported by the HCMC Computer Association [6]. The association mentioned that the percentage of growth of Internet penetration surpassed the global usage percentage in 2006 [6]. Even though there are other factors that affect the growth rate of Internet penetration, this should not outshine the fact that online gaming is one of them.

In terms of technological consumption, MMORPGs are consumed mainly by the youth, which is considered to be the majority of Vietnamese population. Vietnam is the country with remarkable young age population. Among the total 90,549,390 people, the majority of population is young, with 27.8 years as a median age [2]. Furthermore, the majority of Vietnamese population is a precious human resource of their new economy. Combining 70 % of population is in the working age group (age 15-64 years old), and a high rate of literacy (with 90.3% of population) together, it is undeniable that the country is comprise with a great deal of skill labor, who are young and taking advantage of its rapid growth economy [2].
Vietnam knows this well when it comes to the development of country’s IT industry, being a pool of young and skilled working population is often teamed with a willingness to work hard for a fraction of labour cost when compare with many international IT workers like China and India [9].

As the nature of the business, the online games in Vietnam have also pushed the youth over technological boundaries, by connecting them together though virtual communities that are emerged accordingly to the popularity of online games [15].

The role of online gaming as technology hero can be examined in greater details to the areas of middleware technology and bandwidth capacity development. However, as the poster focuses mainly on the interplay between the desire to develop domestic IT industry and the desire to control the dynamic of one of the most vibrant IT sector, the online gaming. The poster now moves on to the social challenges that online games in Vietnam have been facing.

3.2 Online Gaming as Social Threat and the Government Reactions

The major disadvantage of online gaming is measured from a public outcry and a negative press. Online gaming has been blamed for their negative effects on displaying illicit images, causing violence among the youth, school juvenile crime, school truancy, and severe addiction among youth [12][11][16][4].

The government has expressed the concern of online gaming on the youth though several channels: constantly expressing the concern though government media such as the news site Vietnamet; coordinating with local government to forbid online games that considered containing violence scenes [11]; and coordinating with games provider not to provide service in any internet rooms located near education institutes [11].

The government of Vietnam has implemented several restriction related to online gaming activities in different levels, both in banning game playing activities and the game contents. The earliest concern in regards to online gaming dates back to the time when the online gaming business is Vietnam started. In 2007, the Ministry of Information and Communications issued Circular 60 as a time restriction rules for online game playing [10]. Under Circular 60, game providers have to put the limit on playing time that varies by each game, for example few games can be played continuously three hours or five hours. The most difficult part of this restriction was the effectiveness in implementations [10]. Then it comes to the recent and most controversial as this time the government moves the pressure from online game providers to Internet service providers (ISPs) instead. The ISPs now are requested by the Ministry of Information and Communications to restrict the access to online games from 10.00pm to 08.00am from 3rd March 2011 onward. Failure to keep up with these results in business shut down.

More still to come, the state control over online activities is now moving to another area of online gaming, the virtual asset. The World Bank reports that the China and Vietnam are on a supply side for online game virtual resources for [17]. While the World Bank projects this as a virtual economy, the Ho Chi Minh City people’s Committee has proposes the prime minister to ban the trade of online game virtual assets [14].

This raises the question whether it is an excessive game addiction that causes problem or this is the gap in two generations which could resulting in the suppression of one of the most vibrant economic and technology sectors, online gaming in Vietnam.

4 Conclusion and Future Work

The late night banning on online gaming is a step further of Internet usage intervening. The Vietnamese government is known for playing a big brother role watching online activities, and once blocked the access to Facebook site, though a DNS-level barrier [1]. Now it comes to the late-night banning. What would it cost to get this ban implemented and how effective could this be?

The late night banning has been enforced now, and the ISPs have to find the efficient ways to implement the blocking. Without doubt, this action has an economic cost.

Furthermore, this ban questions the validity of Vietnam so call socialist market economy, when the government can intervene the dynamic of economic activities. There have been concerns expressed by Chinese technology investors on the credibility and stability of Vietnam technology market [13]. This could be seen just as an uncertainty in business environment, but can further affect technology transfers and spillovers from foreign technology enterprise who withdraw their technology investment plans from Vietnam, and many international technology enterprises lose trust in their Vietnamese partners.

This poster is a part of an ongoing research that aims to analyze the policy aspects that affect technological upgrading approaches in Vietnam’s IT industrial development. The case of online gaming is one of the set of evidences that demonstrate an unclear trajectory of Vietnam technology policy.

5. REFERENCES


DOI= http://english.vietnamnet.vn/social/201005/Online-games-entertainment-or-addiction-911687/

DOI= http://www.chinadaily.com.cn/business/2010-08/06/content_11107120.htm


DOI= http://www.infodev.org/publications