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INNOVATION OF RETRIEVAL SYSTEM TO INVESTIGATE CENSORSHIP
IN ONLINE SOCIAL MEDIA

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A Dissertation Submitted in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy Program in Technopreneurship and Innovation Management
(Interdisciplinary Program)
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หัวข้อวิทยานิพนธ์	ระบบนวัตกรรมค้นคืนเพื่อตรวจสอบการเซ็นเซอร์เนื้อหา ในสื่อสังคมออนไลน์
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ความผิดเกี่ยวกับคอมพิวเตอร์ พ.ศ. 2550 ทำให้ผู้ให้บริการสื่อสังคมออนไลน์พยายามที่จะ
ควบคุมเนื้อหาที่ผิดกฎหมาย รวมถึงเนื้อหาที่มีแนวโน้มว่าจะเป็นปัญหาหรือเป็นอันตราย ระบบ
นวัตกรรมค้นคืน (IRS) ที่ถูกพัฒนาขึ้นได้ตรวจสอบห้องต่างๆ จำนวน 4 ห้องในเว็บไซต์
Pantip.com ซึ่งเป็นเว็บบอร์ดยอดนิยมของไทย ผลปรากฏว่ามีการเซ็นเซอร์มากเกินไปจน
หรือที่เรียกว่า overblocking อยู่ค่อนข้างมาก โดยระดับของ overblocking มีอยู่สูงกว่าร้อยละ
70 ของเนื้อหาที่ถูกเซ็นเซอร์ทั้งหมด และการเซ็นเซอร์ในแต่ละห้องก็ไม่มีรูปแบบที่แน่นอน
ตายตัว ซึ่งส่วนใหญ่หลักเกณฑ์ในการเซ็นเซอร์นั้นจะขึ้นอยู่กับเนื้อหาในแต่ละห้องและ
วิจารณ์ญาณของผู้ดูแลเว็บไซต์เป็นหลัก เนื้อหาที่ถูกเซ็นเซอร์เหล่านี้ไม่ผิดกฎหมาย แต่เป็นการ
เซ็นเซอร์มากเกินไปจนขอบเขตของผู้ให้บริการเนื่องการเกิดความกลัว 3 ประการ ได้แก่ ความกลัว
จากการแทรกแซงของหน่วยงานรัฐ ความกลัวจากการถูกฟ้องร้องโดยภาคเอกชน และความ
กลัวภาระรับผิดของผู้ให้บริการตาม พ.ร.บ.ว่าด้วยการกระทำความผิดเกี่ยวกับคอมพิวเตอร์
พ.ศ. 2550 ถึงแม้ว่าการเซ็นเซอร์ดังกล่าวจะเป็นการลดทอนสิทธิเสรีภาพในการแสดงออกของ
ผู้ใช้งานอินเทอร์เน็ตและเป็นอุปสรรคต่อธุรกิจออนไลน์ แต่ผู้ดูแลเว็บไซต์ก็ยอมรับว่า ยอม
เซ็นเซอร์และสูญเสียผู้ใช้เว็บบอร์ดไปบางส่วนเพื่อหลีกเลี่ยงปัญหาที่จะเกิดขึ้นกับการดำเนิน
ธุรกิจ ดังนั้น การแทรกแซงของหน่วยงานภาครัฐและภาระรับผิดของผู้ให้บริการ นอกจากจะ
เป็นอุปสรรคสำคัญต่อการสื่อสารของประชาชนแล้ว ยังกระทบต่อธุรกิจออนไลน์ การก่อเกิด
นวัตกรรม และการเติบโตทางเศรษฐกิจด้วย และก็จะเป็นการขัดขวางการลงทุนและการเติบโต
ของภาคอุตสาหกรรมออนไลน์ในประเทศไทยในที่สุด

สาขาวิชา ธุรกิจเทคโนโลยีและ
การจัดการนวัตกรรม
ปีการศึกษา 2556

ลายมือชื่อนิติต
ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์หลัก.....
ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์ร่วม.....

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Baramee Navanopparatskul: Innovation of Retrieval System to Investigate
Censorship in Online Social Media. Advisor Asst. Prof. Pirongrong Ramasoota,
Ph.D. : Asst. Prof. Sukree Sinthupinyo, Ph.D., 116 pp.

Provision of intermediary liability in computer crime law in Thailand has induced online service providers to control illegal content including content that is deemed harmful or problematic excessively. The constructed Innovative Retrieval System (IRS) had investigated four forums in the most popular social media forum in Thailand, Pantip.com, and found that excessive censorship or overblocking in the website is prevalent. There is no consistency of censorship pattern among forums. The censorship criteria depend mostly on type of content in each forum and the judgment of website administrator. The result of IRS investigation also found that overblocking rate in each forum is quite high. Over 70% of all content removed were not illegal. They were all removed because online service providers are fear of three factors: intimidation of governmental agencies, threat of lawsuits from business organizations, and fear of intermediary liability. Even if such censorship law both infringes users' freedom of expression and impedes the social media business, website administrator admitted that it would worth it to cut off some users to avoid troubles. Therefore, government interference and intermediary liability provision in computer crime law are likely to be main obstacles threatening not only ingenious communication of the public, but also Internet business, innovation, and economic growth. The investment and growth in the Internet industry in Thailand would be deterred as long as these obstacles remain.

Department : Philosophy..... Student's Signature

Field of Study : Technopreneurship..... Advisor's Signature

and Innovation Management

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CHAPTER I

INTRODUCTION

1.1 Background

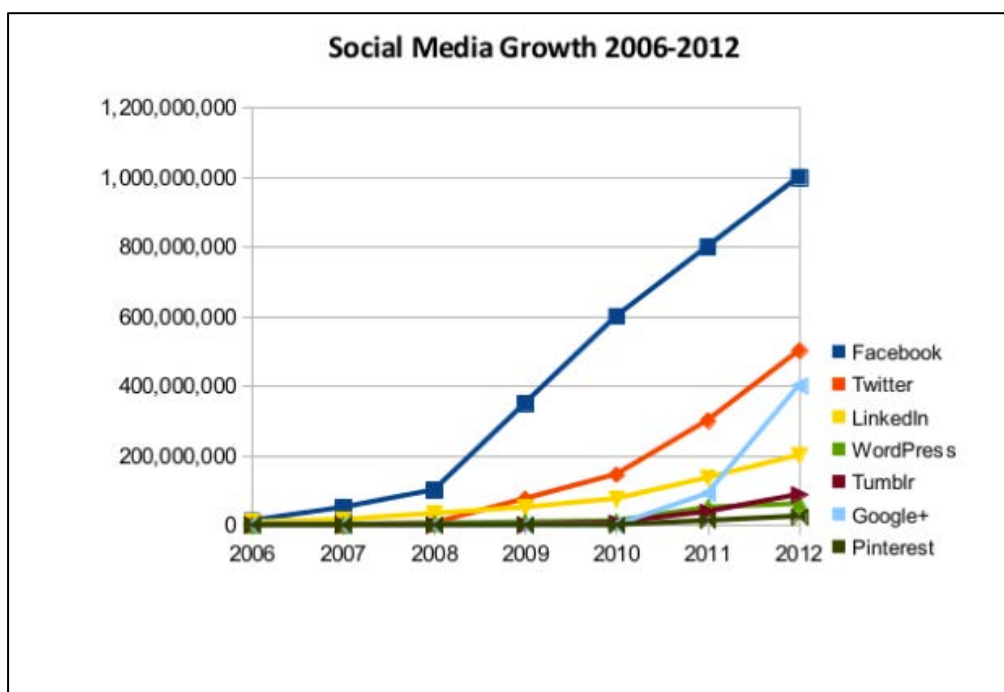
Online social media such as social networking, blogging and video sharing sites are one of the most popular technologies in the Web 2.0 Age. Applications like Facebook, YouTube, and Twitter enable ordinary users to post their own content, share information, and connect with large audiences. They have changed how people communicate and connect to each other. Not only have they enabled users to present themselves more easily and freely than before, but they also help create other benefits such as relationship building, democracy of information and social capital. Moreover, despite serving as a form of entertainment, social media have also played a vital role in political and social activism. In Egypt, Tunisia, Iran, Bahrain and Thailand, for example, democracy advocates have relied heavily on Facebook and Twitter to mobilize supporters and organize mass rallies.

Table 1.1 Social media growth in 2006 – 2012

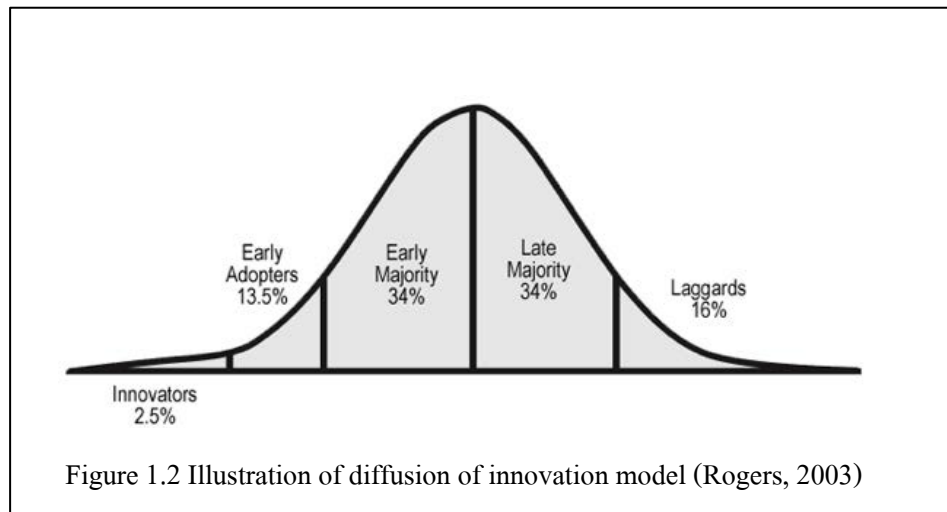
Year	Facebook	Twitter	LinkedIn	Wordpress	Tumblr
2006	12,000,000	1,000	8,000,000	600,000	0
2007	50,000,000	750,000	15,000,000	2,000,000	170,000
2008	100,000,000	5,000,000	33,000,000	4,300,000	1,000,000
2009	350,000,000	75,000,000	50,000,000	8,000,000	2,000,000
2010	600,000,000	145,000,000	75,000,000	11,100,000	7,000,000
2011	800,000,000	300,000,000	135,000,000	50,000,000	38,000,000
2012	1,000,000,000	500,250,000	200,000,000	60,830,000	86,800,000

Source: <http://www.dstevenwhite.com>

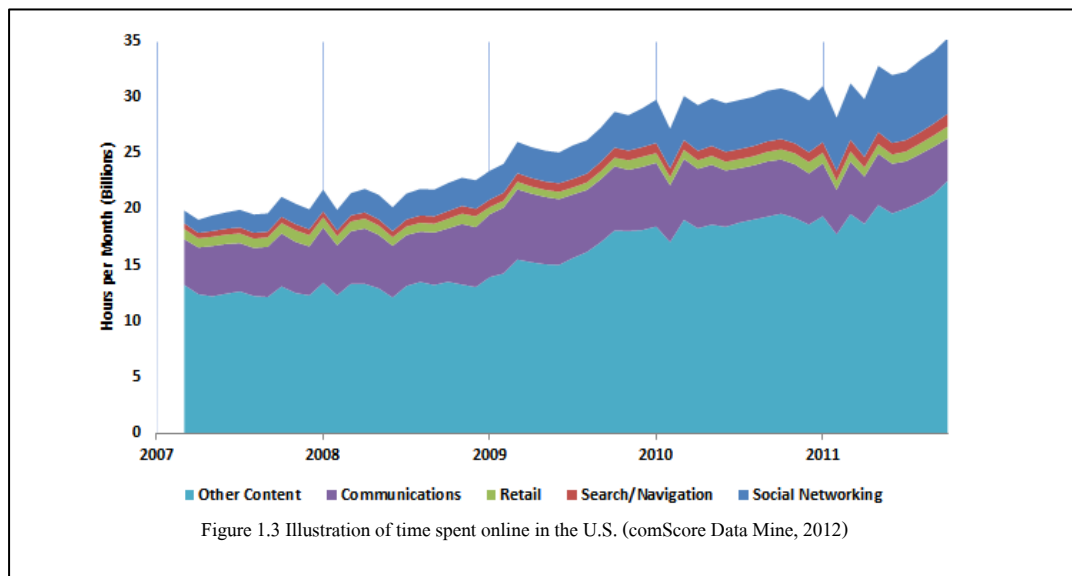
White (2013) has studied the social media growth from 2006 to 2012 based on information gathered from Facebook, Twitter, LinkedIn, Wordpress, Tumblr, and presents an estimate of total unique users for each of the sites investigated as shown in Table 1.1. The numbers are approximate as estimated on the best available public information. Data was collected for three social media sites – Facebook, Twitter and LinkedIn – and two blog hosting sites – WordPress and Tumblr. Estimates for the latter two represent the number of bloggers using the site (not the number of site visits or blog postings, which are much higher).



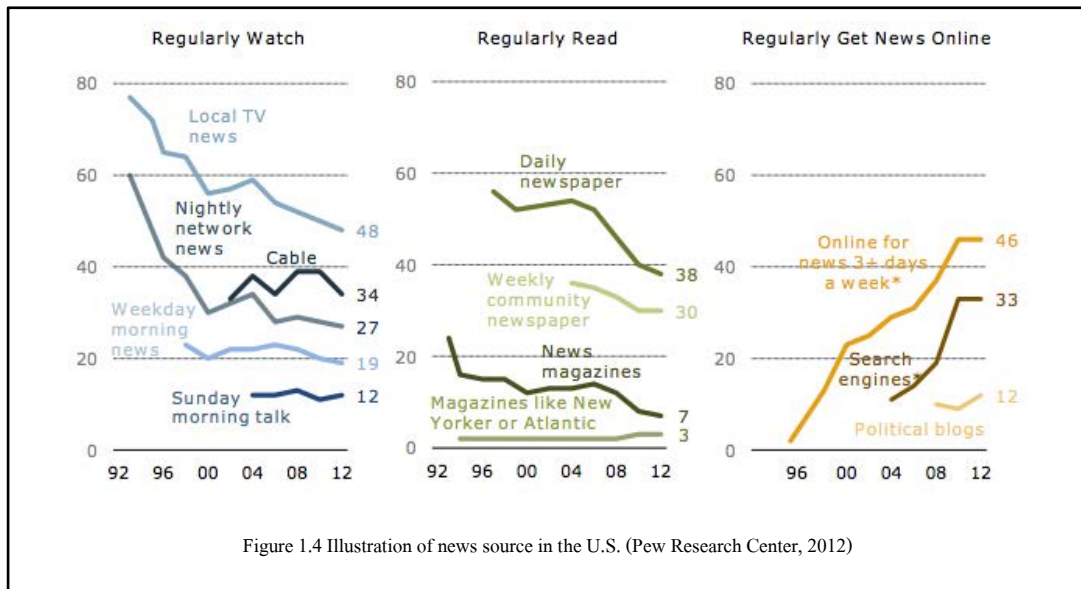
As shown in Figure 1.1, the growth patterns of each site look nearly identical. It is clearly that social media have passed the innovator and early adopter stages and is moving into the early majority stage, according to the diffusion of innovation model (Rogers, 2003) as shown in Figure 1.2.



Not only have social media gained wide popularity through growing number of users, but they have also enjoyed the increased time spent online continuously. comScore (2012) finds that social networking is the main Internet site that U.S. Internet users visited these days with approximately 1 out of every 6 minutes spent online. As a percentage of all the time users spent online, social networking activity has more than tripled in the last few years (comScore Data Mine, 2012). Figure 1.3 illustrated that social networking ranked as the most popular content category in time spent online.



in addition, today Americans get most of their news from the Internet according to Pew Research Center (2012). As shown in Figure 1.4, online news is now the main sources of Americans and has already surpassed newspaper and cable TV already.



Not only do social media offer people a new frontier of information delivery, but they also give freedom to express and broadcast what people could not have done before in traditional media, especially political views. The so-called Twitter revolution in Iran in 2009 was an example of social media that has proven to be a reliable way to communicate and to spread information in a quick and efficient way (Celli et al., 2010). In terms of marketing, customers speak about brands everyday, on their own blogs, web forums and in social media. Gaining access to those opinions will help businesses identify key actions to respond to customer needs.

However, rise of social media and Internet freedom also induces governments around the world to control the flow of information and the freedom of expression, which are actually the strength of social media. According to the study by Freedom House (2009), there are clear emergences of negative trends to Internet freedom as follows:

a) *Expanding forms of censorship* – Censorship could take place through technical filtering, formal or informal government intimidation, requests from private sectors, and judicial decisions.

b) *Privatization of censorship* – Censorship has been outsourced to private companies such as Internet Service Providers (ISPs), Online Service Providers (OSPs), cyber-cafes, and mobile phone operators, to censor and monitor information and communication technologies (ICTs).

c) *Lack of transparency and accountability* – There is a lack of transparency and accountability of censorship scheme in both democratic and authoritarian countries. Although governments censor content like political issues or pornography legitimately, they hardly declare what are censored and why and it is less than possible to appeal for the censorship.

d) *Legal threats* – Legal control and censorship commonly used in traditional media are moving into the new media sphere. Bloggers in many countries are sentenced to prison or penalized with a high fine.

e) *Technical attacks* – Hacking or denial-of-service are another method to attack Internet users in many countries other than legal threats and intimidation.

These trends and threats, especially censorship, are emerging around the world even in the developed countries. Sniderman (2011) stated that France's government banned the use of the words "Twitter" and "Facebook" on broadcast news saying that it constituted unsolicited advertising, while U.K. government has warned British soldiers about how they use social media lest that information also end up in enemy hands. What happens is that governments are looking at and using social media the same way they always do with traditional media like the print and broadcast. The new Internet restrictions around the globe are partly a response to the explosion in the popularity of advanced applications like Facebook, YouTube, and Twitter (Freedom House, 2011). Censorship is thus a main problem many countries are facing along with the growth of social media. This problem would threaten user's freedom of expression, lessen transparency and impede business capability in using social media.

1.2 Situation in Thailand

The Internet growth in Thailand is currently evolving in a similar pattern to those in the world. As shown in Figure 1.5, Internet users in Thailand have increased dramatically in recent years according to the Thailand National Statistical Office Ministry of Information and Communication Technology (2012). The growth of social media has also been phenomenal. These gains have been driven by declining prices of Internet access as well as an increased demand for alternative sources of information and platforms for networking and sharing information amid the country's ongoing political crisis (Freedom House, 2011). These platforms offer Thais an important alternative space to seek information and engage in political expression more freely and anonymously (Bangkok Post, 2010).

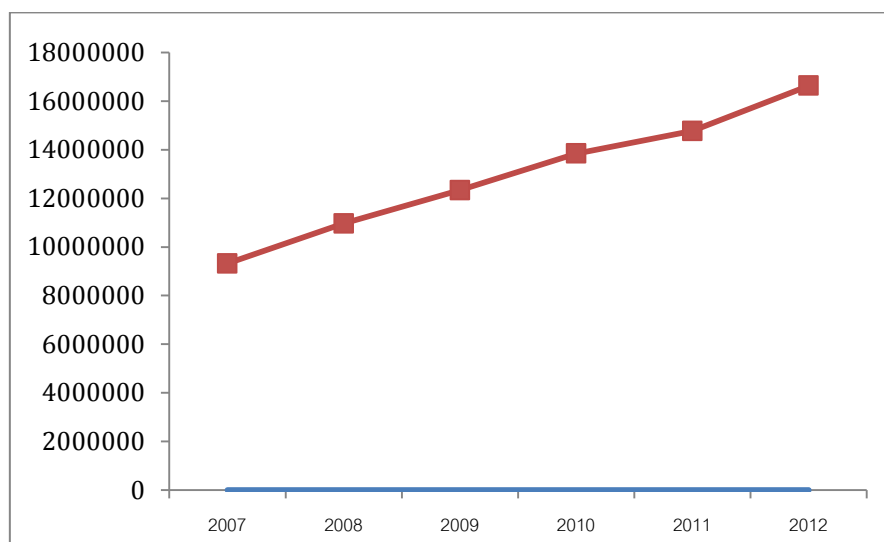


Figure 1.5 Illustration of Internet users in Thailand (National Statistical Office, 2012)

According to the social media survey usage in Asia-Pacific studied by Burson-Marsteller (2011), social media penetration has increased rapidly across all Asian countries, and Internet users are spending more time creating, consuming and sharing information. In Thailand, social media websites usage has already surpassed mainstream media websites (Burson-Marsteller, 2011). Not only have Facebook, Twitter, Youtube, Sanook, Pantip

and many other social media services in Thailand gained more users, but also the time spent on the Internet has seen significant growth throughout the past few years (Gibbins, 2011).

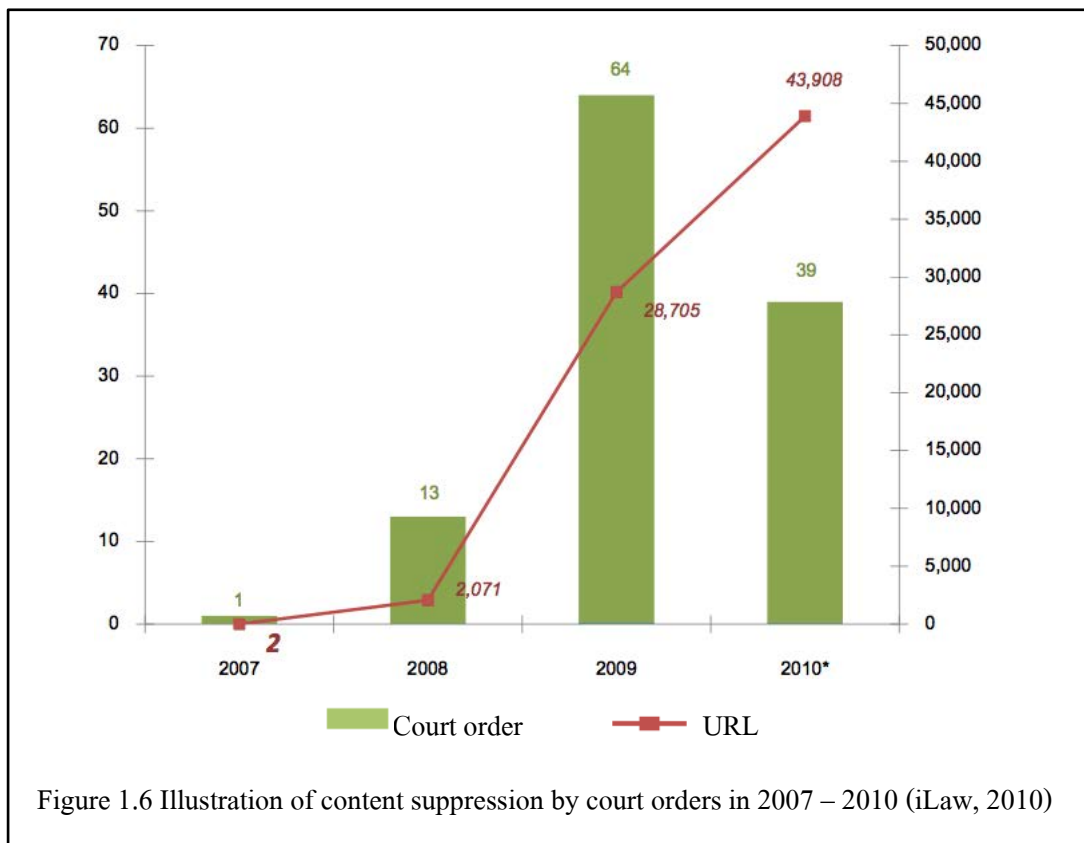
While Internet usage and social media growth in Thailand have increased significantly in the past few years, the restrictions on Internet content have expanded in recent years, in terms of both the number of websites targeted and the scope of topics censored. According to a local research on control and censorship of online media through the use of laws and the imposition of Thai state policies (iLaw, 2010), the suppression on the dissemination of computer data by Court orders have dramatically increased from 2007 to 2010 as shown in Table 1.2 and Figure 1.6.

Table 1.2 The statistics of content suppression by Court orders in Thailand (2007 – 2010)

Content	2007		2008		2009		2010*		Total	
	Court order	URL	Court order	URL	Court order	URL	Court order	URL	Court order	URL
Lèse majesté	0	0	7	1,937	30	16,525	25	38,868	62	57,330
Obscene or pornographic	0	0	4	96	27	11,609	12	5,035	43	16,740
Abortion pills	0	0	1	37	3	320	0	0	4	357
Encourage gambling	0	0	0	0	2	246	0	0	2	246
Depreciate the religion	1	2	1	1	1	2	0	0	3	5
Other	0	0	0	0	1	3	2	5	3	8
Total	1	2	13	2,071	64	28,705	39	43,908	117	74,686

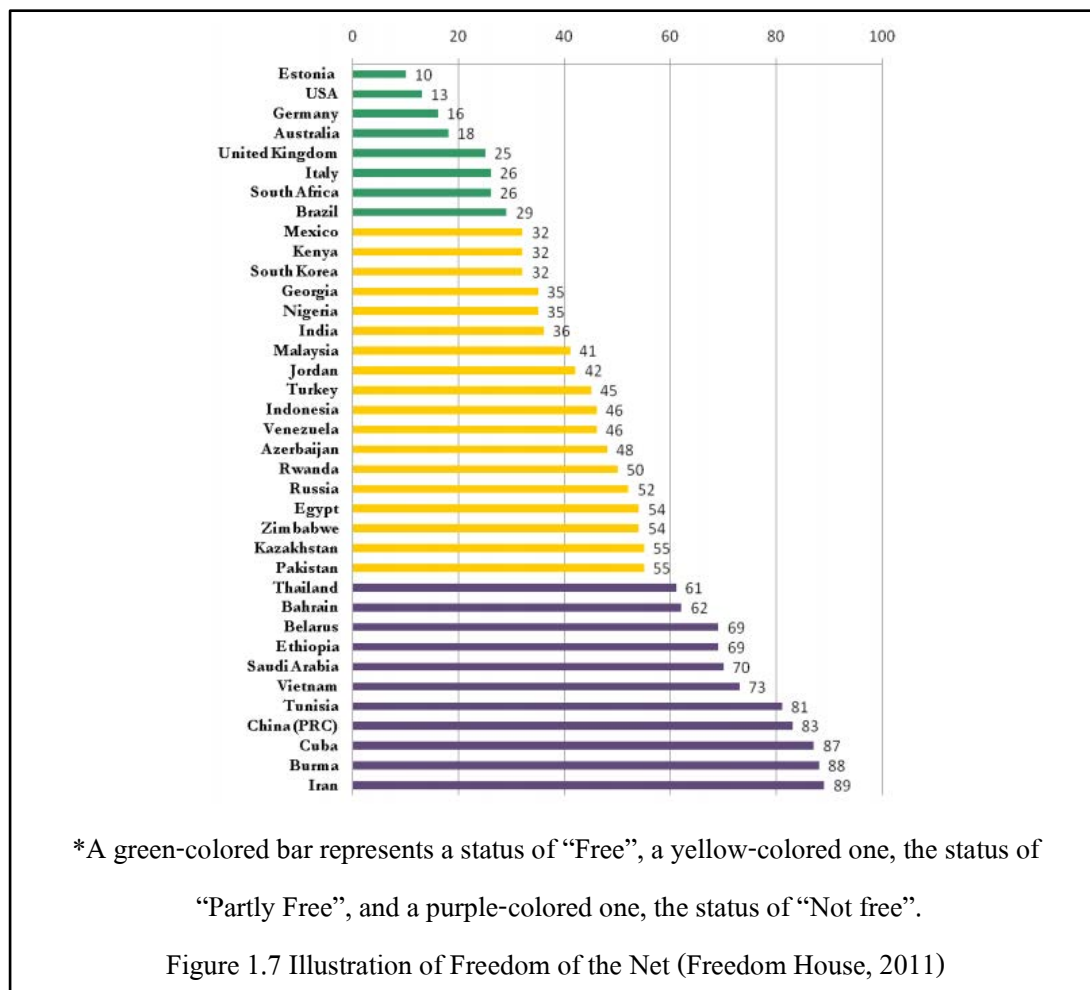
Remark: *Statistics in 2010 collected from January to November.

Source: iLaw, 2010



According to the study by Freedom House (2011), Thailand is at particular risk of suffering setbacks related to Internet freedom in 2011 and 2012. The Internet in the country is now not free and in significant danger of repression (Figure 1.7). Moreover, filtering or censorship is inconsistent, with different ISPs blocking different information due to the provisions of the computer crime law in 2007 are vague and overbroad, and allow for the subjective interpretation by state officials and preemptive action by ISPs and content hosts (ARTICLE 19, 2011). For example, the provisions in Section 14 and 15 of Computer-Related Offence Act B.E. 2550 (2007) allow the prosecution of any content providers or intermediaries – such as Webmaster, administrators, and managers – who are accused of posting or allowing the dissemination of content that is considered harmful to national security or public order. Therefore, online service providers (OSPs) or online intermediaries in the context of Web 2.0, also known as social media, are compelled to control illegal content including content that are deemed *lèse majesté* (defaming the royal family). In some cases, Webmaster or administrators have indeed been charged under Section 15 for content posted by other users on

websites or discussion board they hosted. This situation leads to induced self-censorship of intermediaries, often resulting in overblocking or excessive removal of content to avoid violating the law. Such filtering flaw both infringes users' freedom of expression and impedes the business of OSPs in Thailand.



1.3 Research Questions

Intermediary censorship has emerged as a contentious issue in the scholarly area of Internet filtering in recent years. In the context of Web 2.0, OSPs or social media like online discussion forums, social networking services and blogging services have become important public sphere whereby users are provided with space to generate their own content. This should, in any general context, promote freedom of expression of Net users.

However, many regimes around the world have not been accommodating for this novel opportunity as they have made OSPs new choking points for Internet control by transferring to them the liability related to content published online, which Zuckerman (2009) refers to as “intermediary censorship”. In fact, cyber crime laws in some countries have made intermediary liability a major regulatory component. Such is the case with Thailand’s relatively new, yet highly controversial, Computer-Related Offence Act B.E. 2550 (2007) which requires online intermediaries to remove potentially infringing content, particularly those that may fall under *lèse majesté* – damaging or defaming the king and royal family – a historically serious crime in Thailand (Bangkok Post, 2009).

According to a local research on control and censorship of online media through the use of laws and the imposition of Thai state policies (iLaw, 2010), censorship and lawsuits have dramatically increased particularly under charges of defamation and *lèse majesté* as shown in Figure 1.8 and Figure 1.9. Also, according to the study on the impact of defamation law on freedom of expression in Thailand by ARTICLE 19 (2009), the Ministry of Information and Communications Technology (MICT) has shut down more than 2,000 websites alleged to have contained *lèse majesté* material. Based on reviews of related research and unobtrusive observation, however, the emerging filtering scheme at the intermediary level has led to a subjective censorship practice of sort (MacKinnon, 2009).

¹ ARTICLE 19 was established in 1987 in the UK and has worked and partnered with many international organizations such as UN, Amnesty International and International Media Support, and governments such as the UK and Brazil. ARTICLE 19 monitors, researches, publishes, advocates, campaigns, sets standards and litigates on behalf of freedom of expression wherever it is threatened to strengthen national capacities, and build or reform institutions and policies to protect transparency and the free flow of information.

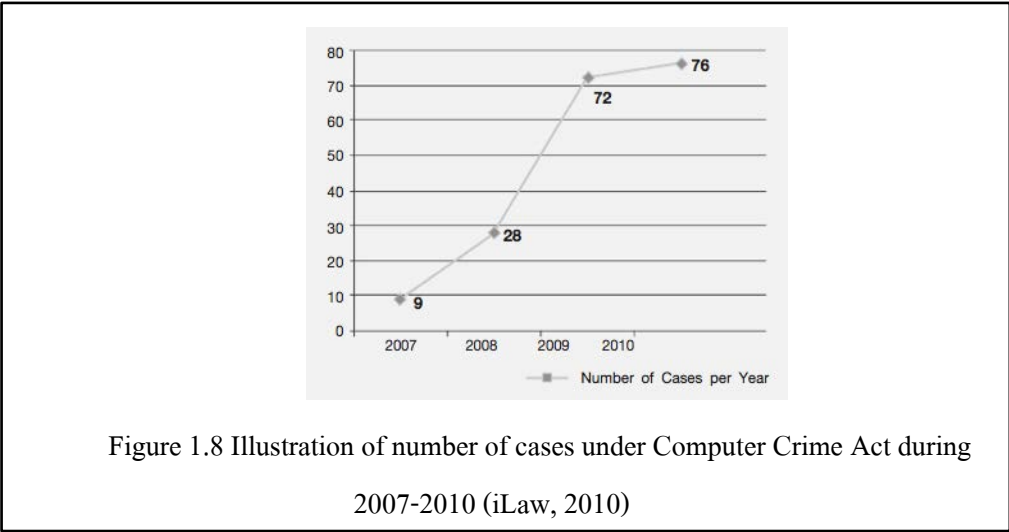


Figure 1.8 Illustration of number of cases under Computer Crime Act during 2007-2010 (iLaw, 2010)

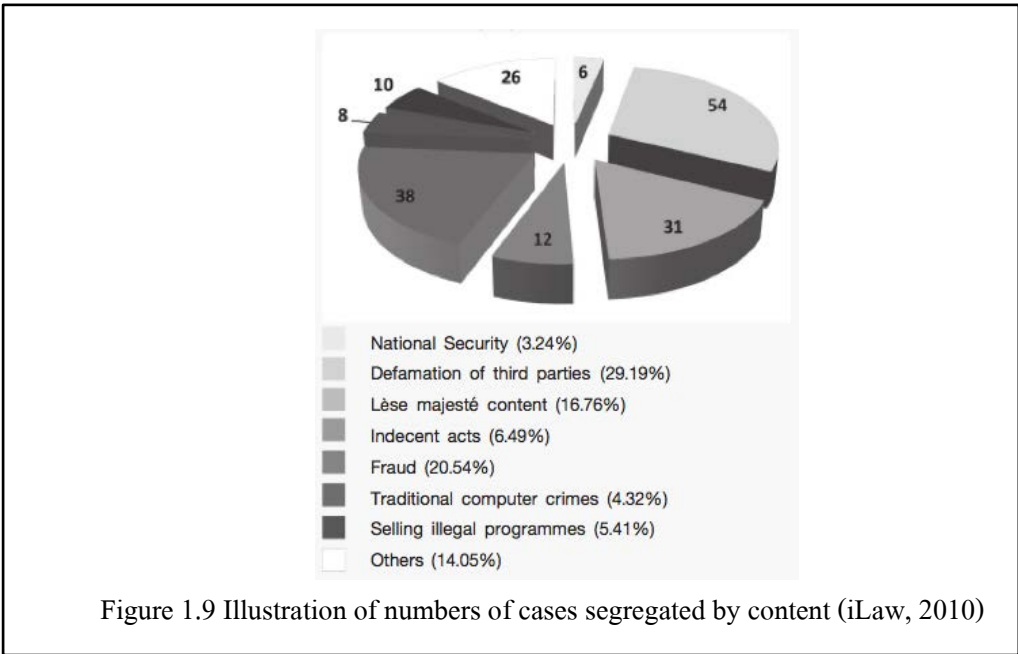


Figure 1.9 Illustration of numbers of cases segregated by content (iLaw, 2010)

Online social media such as discussion forums, social networking, blogging and video sharing sites are among the most popular technologies emerging in the Web 2.0 age. Such applications like Facebook, YouTube, and Twitter enable ordinary users to post their own content, share information, and connect with large audiences. They have changed how people communicate and connect to each other. Not only have they enabled users to present themselves more easily and freely than before, but they also help create other benefits e.g. relationship building, democracy of information and social capital. Moreover, despite serving as a form of

entertainment, social media have also played a vital role in political and social activism. In Egypt, Tunisia, Iran, Bahrain and Thailand, for example, democracy advocates have relied heavily on Facebook and Twitter to mobilize supporters and organize mass rallies.

Pantip.com is an example of online social media as it is a public forum for users to share information and opinions on a designated issue. To date, it is the most popular discussion forum website, which had attained a traffic rank of 9th in Thailand (Alexa, 2011), and was one of the first websites established in Thailand when the Internet was being introduced in the country in the 1990s. Due to diversity of forums and users, Pantip.com has faced many issues of illegal content on the website. It has then resorted several tools to limit the adverse effect from illegal content posted by users. One of the most well-known filtering schemes is the “one ID one account” policy, which is the process requiring 13-digit national ID number or passport ID number for subscription. Users have to comply with the policy and try not to break the regulation of the forum; otherwise they would be banned and could not re-subscribe ever.

Most social media services utilize both manual and auto filtering method to cope with a broad range of content on the website. However, some intermediaries including Pantip.com have resorted to excessive removal of content or overblocking to avoid violating the law. Inevitably, media freedom and Net users’ freedom of expression have been violated as well. When users feel lack of free speech online or cannot speak out in a certain social media service, they would move to another easily and that would diminish the business of the deserted OSP. Overblocking not only threatens free expression and Internet companies, but also innovation and economic growth. This situation of Internet control in Thailand and filtering flaw in social media has led this researcher to an important line of inquiry about censorship in online intermediaries, which has been formulated into the following questions:

1) What are the criteria of censorship in online social media, based on the case study of Pantip.com, in Thailand?

2) What types of content are filtered by intermediaries, based on the case study of Pantip.com, in Thailand?

3) Does overblocking happen in online social media, based on the case study of Pantip.com, in Thailand?

1.4 Objectives

To answer those questions, a framework of Innovative Retrieval System (IRS) is introduced to investigate the intermediary censorship scheme by exploring and retrieving the content filtered by OSPs. The classification of filtered content will be identified to show what content is blocked and what influence has induced the censorship. The results of this study are expected:

- 1) To expose criteria or pattern of censorship in online social media, based on the case study of Pantip.com, in Thailand.
- 2) To increase accountability and transparency of OSPs to users, via the creation of a tangible and systematic data, which would likely contribute to users' informed judgment in use selection of social media websites.
- 3) To create base-line knowledge on censorship scheme and overblocking practiced by OSPs in Thailand.

1.5 Definitions

- 1) Intermediary censorship – The online censorship or Internet filtering occurred in social media or by online service providers (OSPs) (Zuckerman, 2009).
- 2) Internet Service Provider (ISP) – A company that provides access to the Internet for a monthly fee; the service provider supplies customers with a software package, username, password and access telephone number (Freedom House, 2009).
- 3) Online Service Provider (OSP) – An organization that offers a service via the Internet. The service includes such things as email service, discussion forum, online banking, online shopping, social networking service, and blogging service.
- 4) Online Social Media – The integration of technology with social interaction to create value. It rests on Internet tools that enable shared community experiences through multidirectional conversations that create, organize, edit, combine, and share content. Typical tools and applications include blogging services, social networking services, and online discussion forums (Serrat, 2010).

5) Web 2.0 – Applications that facilitate interactive information sharing, interoperability, user-centered design, and collaboration on the Internet. These are the result of cumulative changes in the ways software developers and users employ the Internet as an information transport mechanism. Typical features and techniques include search, links, authoring, tags, extensions, and signals (Serrat, 2010).

1.6 Contributions

Contributions from this research can be categorized in two groups as follow:

1) Practical contribution

a) The IRS software aims to expose/identify pattern of censorship in social media and to increase accountability and transparency of OSPs to users, which would likely contribute to users' informed judgment in use selection of social media websites.

2) Academic contribution

a) The development of universally applicable software of IRS will contribute to innovative model of investigating intermediary censorship in social media.

b) The content filtered by OSPs will be identified and analyzed to reveal how self-censorship of intermediary is administered. The results of this research contribute to the base-line knowledge on censorship scheme or criteria practiced by OSPs.

CHAPTER II

LITERATURE REVIEW

2.1 Approaches and Context of Internet Filtering

McCrea et al. (1998) indicated that there are various strategies available for blocking Internet content, mainly blocking at the application level and at the packet level. OpenNet Initiative (ONI) has concluded the approaches of Internet censorship and content restrictions normally used today in Table 2.1.

Table 2.1 Approaches of Internet Filtering

Approaches	Description
Technical blocking	There are three commonly used techniques to block access to Internet sites: IP blocking, DNS tampering, and URL blocking using a proxy. These techniques are used to block access to specific Webpages, domains, or IP addresses and are most frequently used where direct jurisdiction or control over websites are beyond the reach of authorities. Keyword blocking, which blocks access to websites based on the words found in URLs or blocks searches involving blacklisted terms, is a more advanced technique that a growing number of countries are employing. Denial of service attacks produce the same end result as other technical blocking techniques—blocking access to certain websites—carried out through indirect means.
Search result removals	In several instances, companies that provide Internet search services cooperate with governments to omit illegal or undesirable websites from search results. Rather than blocking access to the targeted sites, this strategy makes finding the sites more difficult.

Approaches	Description
Take-down	Where regulators have direct access to and legal jurisdiction over web content hosts, the simplest strategy is to demand the removal of websites with inappropriate or illegal content. In several countries, a cease and desist notice sent from one private party to another, with the threat of subsequent legal action, is enough to convince web hosts to take down websites with sensitive content. Where authorities have control of domain name servers, officials can deregister a domain that is hosting restricted content, making the website invisible to the browsers of users seeking to access the site.
Induced self-censorship	A common and effective strategy to limit exposure to Internet content by encouraging self-censorship both in browsing habits and in choosing content to post online. This may take place through the threat of legal action, the promotion of social norms, or informal methods of intimidation. Arrest and detention related to Internet offenses, or on unrelated charges, have been used in many instances to induce compliance with Internet content restrictions. In many cases, the content restrictions are neither spoken nor written. The perception that the government is engaged in the surveillance and monitoring of Internet activity, whether accurate or not, provides another strong incentive to avoid posting material or visiting sites that might draw the attention of authorities.

Source: <http://opennet.net/about-filtering>

Deibert (2009) has explained the process of Internet content filtering by classifying into three approaches: inclusion filtering (whitelisting), exclusion filtering (blacklisting), and content analysis. Inclusion filtering allows users only to access a short list of approved sites, known as white list, while other content are blocked. Exclusion filtering restricts users to access the blocked sites, called black list, while other content are allowed. Content analysis restricts user access by dynamically analyzing the content of a site and blocking sites that contain forbidden keywords, graphics or other specific criteria.

However, all processes have received a fair amount of criticism for their tendencies to overblock. For example, the use of blacklists entails handing over power and decision-making capacity to another agent so the standard of each agent is different or inconsistent. While content analysis is not an approach for understanding information in context. The synonyms might be blocked unintentionally. Deibert has also documented the blocked content in his research, which mainly includes pornography and other culturally sensitive material. However, in some countries including Thailand, content beyond pornography, for instance political, social, conflict-related, and security content, is targeted for filtering as well.

Then what contexts or criteria should be used for Internet filtering? Similarly, Weckert (2000) stated that three areas of content on the Internet subject to regulation are pornography, hate language, and potentially harmful information. He indicated that there are moral justifications for regulation of the media and they should be applied to the Internet as well. However, he claimed that Internet regulation must be international agreements so that nobody should be charged if the offence took place in a country in which it was legal.

According to Faris and Villeneuve (2008), there are basically three main contexts for filtering Internet content, which are politics, social norms and morals, and security issues. Subjects, including Internet tools i.e. social networking services, blogging services, and other Web-based applications, are subject to filtering (Table 2.2). Filtering political dissent is also a common form of censorship founded in many countries including Thailand. Pornographic and gambling-related content are basic examples of what is filtered for social and cultural reasons. Hate speech and political satire are also the target of Internet filtering in some countries. Infringing content, including those that may fall under *lèse majesté* – damaging or defaming the king and royal family – has been widely blocked in Thailand.

Table 2.2 Categories subject to Internet Filtering

Categories	
Free expression and media freedom	Sex education and family planning
Political transformation and opposition parties	Public health
Political reform, legal reform, and governance	Gay/lesbian content

Categories

Militants, extremists, and separatists	Pornography
Human rights	Provocative attire
Foreign relations and military	Dating
Minority rights and ethnic content	Gambling
Women's rights	Gaming
Environmental issues	Alcohol and drugs
Economic development	Minority faiths
Religious conversion, commentary, and criticism	Hate speech
Sensitive or controversial history, arts, and literature	

Source: Faris and Villeneuve (2008)

Similarly, Weckert (2000) stated that three areas of content on the Internet subject to regulation are pornography, hate language, and potentially harmful information. He indicated that there are moral justifications for regulation of the media and they should be applied to the Internet as well. However, he claimed that Internet regulation must be international agreements so that nobody should be charged if the offence took place in a country in which it was legal.

However, the regulation or restriction comes with a negative side effect, so called chilling effect. It is a situation where speech is suppressed by fear of penalization at the interests of an individual or group. It may prompt self-censorship and therefore hamper free speech. Klang (2006) stated that many different bodies of legislative rules might cause chilling effect or affect the way in which communication occurs. Those that are most common are privacy, defamation, copyrights and trademarks. Then the content involving these issues tend to be censored as well. CDT (2012) also indicated that chilling effect could happen in the level of intermediary due to fear of potential liability. Intermediary liability not only threatens Internet companies, but also innovation, free expression, and economic growth.

2.2 Controversy of Internet Censorship

Censorship has long been a contentious issue especially when it comes to new types of media content like that on the Internet content. It is not necessarily a debate between conservatives and liberals as has been the case with media censorship in the past but also posits new angles like the necessity and justification of the censorship across international jurisdictions and cultures.

The primary concern of censorship lies in possible violation of rights to free expression. One might ask what gives anyone in society the rights to control information and thought. People have rights, in a free society, to decide for themselves and not be told how to think and what to access. In the contest of Web 2.0, where users are allowed to generate their own content into the public sphere, there should be even more democracy and freedom of expression in the media landscape. But Internet censorship would undermine those advantages of Web 2.0 and would involve massive intrusions on privacy (Weckert, 2000).

As mentioned earlier, Weckert (2000) agreed that Internet should be regulated to some extent. According to Weckert (2000), offensive materials must be justified that they would not harm or infringe on rights of others. It would not be easy to show that people have rights to express themselves through pornography, hate speech and the potentially harmful information. Therefore, the Internet could be reasonably and justifiably regulated. However, Akdeniz (2004) stated that harmful content should be regulated differently from illegal content because the former is not criminalized by national laws even though it is deemed objectionable, offensive, or harmful. Akdeniz (2004) concluded that Internet content considered harmful includes sexually explicit material, political opinions, religious beliefs, views on racial issues, and sexuality. Particularly, pornography is not always considered illegal, even though is often problematic, depending upon its nature and the laws of a specific State as mentioned by Akdeniz (2004) that there is no international attempt to regulate sexually explicit content.

The problem is Internet filtering schemes are usually generated through a combination of manual and automatic search for targeted content. The error, thus, could happen from both human error and technological limit. Filtering software is not foolproof. For instance, forbidden Webpages could easily be given new name and offensive users could register in different account. More effective technology for certain Internet content filtering will be possibly

developed, but it is not yet available today (Weckert, 2000). One might claim that if the filtering could not be done effectively and efficiently, it should not be done at all. According to CDT (2012), there is no sophisticated technology or enough resources, human and financial, for Internet companies to prevent all illegal content posted on their services. Even they try to pre-screen all content before it gets posted, illegal content would still exist. However, this technological problem is not an excuse not to regulate the Internet content. Even though the amounts of harmful content are reduced to some extent, perhaps not significantly, there are still benefits to children and the society in reducing such offensive materials. This is enough in itself to justify regulation.

What follows from this argument relates to what extent of content the regulations should apply. In many cases the censorship applies beyond pornography, hate speech, and potentially harmful information. Political dissent, political satire, terrorism and lèse majesté are examples of sensitive issues that tend to be filtered in some countries even though it is internationally accepted that freedom of expression should apply to political issues as indicated by UN Human Rights Committee (1996):

The free communication of information and ideas about public and political issues between citizens, candidates and elected representatives is essential. This implies a free press and other media able to comment on public issues without censorship or restraint and to inform public opinion.

Many opponents of the Internet censorship claim that political content and related issues should not be blocked based on freedom of expression, and that the profusion of Internet censorship often incorrectly block content that are not subject to be blocked, in other words, overblocking. Also, OSPs are intermediaries made liable under computer crime law, which are often not subject to the standards of review common in government mandates. The danger happens when the OSPs work alongside undemocratic regimes in order to set up nationwide content filtering schemes or reveal sensitive information about users. For instance, Yahoo!'s Hong Kong office complied with Chinese government requests for the identity of a user who forwarded a memo documenting government pressure on Chinese journalists to an overseas website. With information from Yahoo!, Chinese authorities arrested journalist Shi Tao and eventually sentenced him to ten years on charges of leaking state secrets (Reporters Without

Borders, 2005). Zuckerman (2009) also claimed that OSPs might trade off their business risk and reward with free speech and human rights.

Moreover, Klang (2006) concluded that the threat of privatized censorship of service providers should not be underestimated. Once the opposing view or information is censored, what remains online is a form of consensus. This makes it even more difficult for anyone with an opposing view to speak out. In addition, there is little or no information about the censorship rules, therefore the ordinary user cannot be aware of what is censored and thus cannot realize when he/she should attempt to circumvent the censorship. This problem normally occurs in some countries such as China, South Korea, Thailand and Vietnam, where sensitive issues are abundant and significant amount of censorship has been performed according to Faris and Villeneuve (2008) (Table 2.3). However, in the case of Thailand, over the past two years online censorship has increased in both scale and scope due to political turmoil in 2009 and 2010 affecting tens of thousands of websites by the end of 2010, which turns out to be “Not Free” in the 2011 Internet freedom status of the country and selective political censorship has become substantial (Freedom House, 2011). The definitions of degree of filtering are as follows:

- 1) Pervasive filtering is defined as blocking that spans a number of categories while blocking access to a large portion of related content.
- 2) Substantial filtering is assigned where either a number of categories are subject to a medium level of filtering in at least a few categories or a low level of filtering is carried out across many categories.
- 3) Selective filtering is either narrowly defined filtering that blocks a small number of specific sites across a few categories, or filtering that targets a single category or issue.
- 4) Suspected filtering is assigned where there is information that suggests that filtering is occurring, but we are unable to conclusively confirm that inaccessible websites are the result of deliberate tampering.

However, in case of Thailand, over the past two years online censorship has increased in both scale and scope due to political turmoil in 2009 and 2010, affecting tens of thousands of websites by the end of 2010, which turns out to be “Not Free” in the Internet freedom status of the country with substantial political censorship (Freedom House, 2011).

Table 2.3 Degree of filtering

	Political	Social	Conflict and security	Internet tools
Azerbaijan	Selective	-	-	-
Bahrain	Substantial	Selective	-	Selective
Belarus	Suspected	Suspected	-	-
China	Pervasive	Substantial	Pervasive	Substantial
Ethiopia	Substantial	Selective	Selective	Selective
India	-	-	Selective	Selective
Iran	Pervasive	Pervasive	Substantial	Pervasive
Jordan	Selective	-	-	-
Kazakhstan	Suspected	-	-	-
Libya	Substantial	-	-	-
Morocco	-	-	Selective	Selective
Myanmar	Pervasive	Substantial	Substantial	Substantial
Oman	-	Pervasive		Substantial
Pakistan	Selective	Substantial	Pervasive	Selective
Saudi Arabia	Substantial	Pervasive	Selective	Substantial
Singapore	-	Selective	-	-
South Korea	-	Selective	Pervasive	-
Sudan	-	Pervasive		Substantial
Syria	Pervasive	Selective	Selective	Substantial
Tajikistan	Selective	-		-
Thailand	Selective	Substantial	-	Selective
Tunisia	Pervasive	Pervasive	Selective	Substantial
UAE	Selective	Pervasive	Selective	Substantial

	Political	Social	Conflict and security	Internet tools
Uzbekistan	Substantial	Selective		Selective
Vietnam	Pervasive	Selective	-	Substantial
Yemen	Selective	Pervasive	Selective	Substantial

Source: Faris and Villeneuve (2008)

2.3 Internet Censorship in Thailand

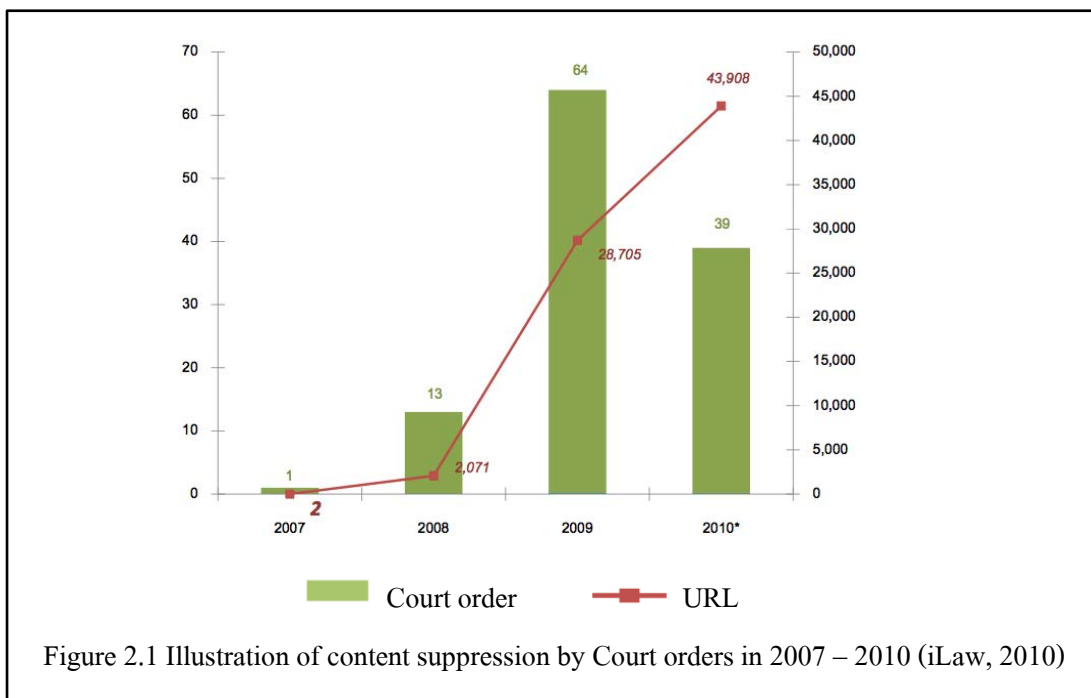
The Ministry of Information and Communications Technology (MICT) is the main state agency with the authority to regulate the Internet in Thailand. MICT has used some of the approaches as outlined by ONI researchers to filter Internet content. As shown in Table 2.4 and Figure 2.1, the suppression on the dissemination of computer data by Court orders has dramatically increased from 2007 to 2010 according to a local research on control and censorship of online media through the use of laws and the imposition of Thai state policies (iLaw, 2010).

Table 2.4 The statistics of content suppression by Court orders in Thailand (2007 – 2010)

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Abortion pills	0	0	1	37	3	320	0	0	4	357
Encourage gambling	0	0	0	0	2	246	0	0	2	246
Depreciate the religion	1	2	1	1	1	2	0	0	3	5
Other	0	0	0	0	1	3	2	5	3	8
Total	1	2	13	2,071	64	28,705	39	43,908	117	74,686

Remark: *Statistics in 2010 collected from January to November.

Source: iLaw, 2010

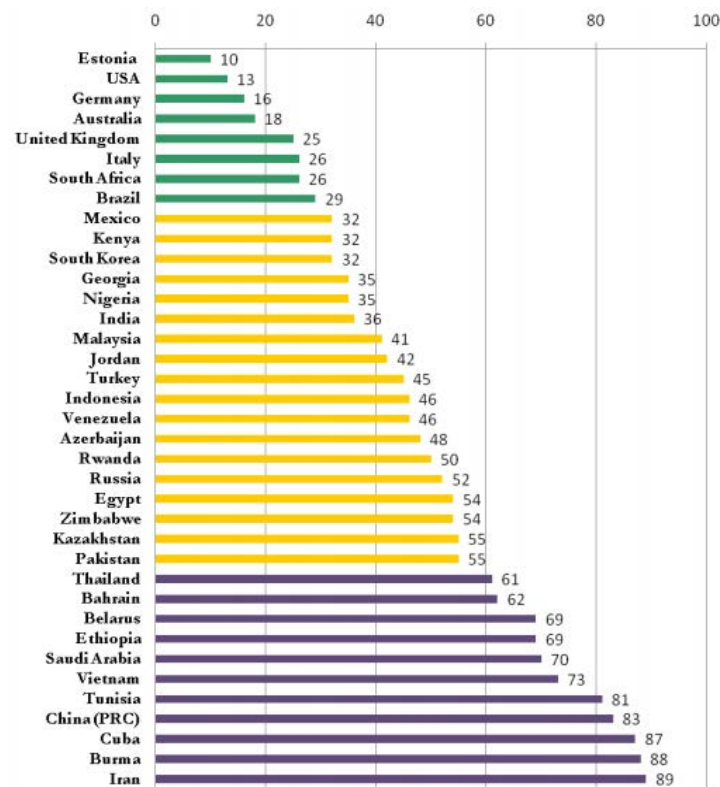


It is obvious that online censorship has steadily been on the rise after the Computer Related Offence Act B.E. 2550 (2007) was enacted in 2007. Particularly, social media services have become prime targets for the censorship due to the open nature and high participation of users who wish to mobilize political action or just share similar ideologies (Bunyavejchewin, 2010). In addition, filtering or censorship is inconsistent, with different Internet service providers (ISPs) blocking different information due to different interpretations of the provisions of the computer crime law in 2007, which are generally vague (ARTICLE 19, 2011). For example, the provisions in Section 14 and 15 of Computer-Related Offence Act B.E. 2550 (2007) allow the prosecution of any service provider who intentionally support or consent to the dissemination of computer data that cause damage or harmful to national security, third party or the public. The question is: what type of content is deemed harmful? Akdeniz (2004) stated that the regulation or governance of harmful content might differ from country to country. The criterion on harm depends upon cultural differences.

Sometimes Webmasters or administrators have failed to control the problematic content, considered harmful by the government, and have been charged under Section 15 for content posted by other users on websites or discussion board they hosted. In Thailand,

Webmaster or moderators can be sentenced to a maximum of five years imprisonment or a THB 100,000 fine or both according to the provision in Section 15 of Computer-Related Offence Act B.E. 2550 (2007) for intermediary liability.

In March 2009, for instance, Thai police arrested Chiranuch Premchaiporn, the director and moderator of the political news site www.prachatai.com, under Section 15 of the Computer Crimes Act for allegedly allowing a comment defaming the royal family to remain on the site for 20 days (Macan-Markar, 2009; Head, 2009). Observers and critics have noted that *lèse majesté* is frequently used as a ‘political tool to discredit opponents’ (ARTICLE 19, 2005). Noticeable consequences are online service providers or OSPs are inevitably induced to control such harmful or potentially problematic content as political dissent, political satire, and sensitive issues including content that are deemed *lèse majesté* (defaming the royal family). Especially, intermediaries hosted with critical views about the monarchy or politically dissenting viewpoints have resorted to self-censorship to avoid prosecution, resulting in overblocking. Such filtering flaw both infringes users’ freedom of expression and impedes the business of OSPs in Thailand. In accordance with the study by Freedom House (2011), Thailand is at particular risk of suffering setbacks related to Internet freedom in 2011 and 2012. The Internet in the country is now not free and in significant danger of repression (Figure 2.2).



*A green-colored bar represents a status of “Free”, a yellow-colored one, the status of “Partly Free”, and a purple-colored one, the status of “Not free”.

Figure 2.2 Illustration of Freedom of the Net (Freedom House, 2011)

2.4 Comparative study of Internet censorship in other countries

As shown in Figure 2.2, this research selected two countries, USA and Germany, from “free” Internet status, one country, Malaysia, from “partly free”, and one country, China, from “not free” to study their Internet censorship scheme. All four countries including Thailand have provisions in their constitutions to ensure that the protection of right to information and freedom of expression will be secured. But in practices, some contents and types of opinion on the Internet are forbidden.

2.4.1 USA

In the United States, expressions against the integrity of other people, nationalities and races, as well as the dissemination of any ideology are permitted freely under the constitution.

However, there are five main restrictions on Internet content (Sullivan & Gunther, 2001) as follows:

- a) Advocacy of illegal content
- b) Obscenity
- c) Hostile audience and fighting words
- d) Defamation and invasion of privacy
- e) Commercial speech

2.4.2 Germany

Germany pledges to uphold the rights to freedom of expression and information as prescribed in their constitutions. Basically, blocking or censorship of public content is not allowed. However, content that is not protected by the constitution and may face legal actions or penalties for the dissemination (Suksri et al., 2012) includes:

- a) Pornography
- b) Propagation of German nationalism or Nazism
- c) Humiliation to human dignity
- d) Defamation and contemptuousness of others
- e) Offense against public order
- f) Gambling

2.4.3 Malaysia

Although Malaysia has particular laws as The Communications and Multimedia Act of 1998 – CMA and The Communications and Multimedia Commission Act of 1998 – CMCA to control communication and content on the Internet, the state often uses informal intimidation to people such as prosecuting Internet users under a number of national security laws. Any content that is in conflict with beliefs, faiths and religious rules are prohibited due to the strictness of religious beliefs in the country. However, there are guidelines on content called ‘The Content

Code' (Communications and Multimedia Content Forum of Malaysia, 2004) to restrict some contents as follows:

- a) Indecent content
- b) Obscene content
- c) Violent content
- d) Menacing content
- e) Bad language
- f) False content

2.4.4 China

For country under one-party political system as China, any expressions that are against to the government or state security are prohibited. Basically, the content on public media including the Internet in China is controlled under the criminal code and state security law (Suksri et al., 2012). The content that is prohibited in the media includes:

- a) National security and state secrets content
- b) Defamation and contemptuousness of others
- c) Sale of illegal data from phone intercept and micro-camera video

2.5 Influences to Intermediary censorship

2.5.1 Influence from governmental sector

According to Freedom House (2009), censorship could take place through technical filtering, formal or informal government intimidation, requests from private sectors, and judicial decisions. Many regimes around the world have made OSPs new choking points for Internet control by transferring to them the liability related to content published online, which Zuckerman (2009) refers to as "intermediary censorship". Sniderman (2011) stated that France's government banned the use of the words "Twitter" and "Facebook" on broadcast news saying that it constituted unsolicited advertising, while U.K. government has warned British soldiers about how they use social media lest that information also end up in enemy hands.

2.5.2 Influence from private sector

Censorship has been outsourced to private companies such as Internet Service Providers (ISPs), Online Service Providers (OSPs), cyber-cafes, and mobile phone operators, to censor and monitor information and communication technologies (ICTs) (Freedom House, 2009). Zuckerman (2009) stated that if the costs exceed the profit margins, which actually are quite tight in a highly competitive market, OSPs are likely to sacrifice a handful of customers in exchange for avoiding legal review.

2.5.3 Influence from civil society

Weckert (2000) stated that there are moral justifications for regulation of the media and they should be applied to the Internet as well. In the past, civil society or representatives of non-governmental organizations (NGOs) was not involved in the traditional media. However, in new media era, civil society organizations were increasingly voicing their concerns about many issues to regulate the content on the Internet (Kleinstauber, 2004). According to Haraszti (2008), business and labor, religious and minority organizations, traditional and newly established interest groups, and individual members of the public could be main providers of complaints or criticism of the media. This complaint mechanism would induce media to preserve editorial freedom on what to report and what opinions to express.

2.5.4 Influence from user

The involvement of governments, industries, users and citizen action groups is crucial for successful regulation (Kleinstauber, 2004). Kleinstauber (2004) also stated that users who wanted to utilize the Internet in a civilized way could induce self-regulation or self-censorship of the Internet by using informal code of conduct, so called Netiquette. An example of influence from users to intermediary censorship is family-based filtering, which parents control the Internet content for their children. Akdeniz (2004) indicated that Internet users or parents play an important role to report illegal and harmful content like child pornography to protect children and vulnerable people.

2.6 Impact of intermediary censorship

The impact of intermediary censorship might be more far-reaching than it appears. There are a number of impacts that could be summarized in three main areas as follows:

2.6.1 Impact on usability and online business

When users feel lack of free speech online or cannot speak out in a certain social media service, they would move to another easily and that would diminish the business of the deserted OSP. But if an OSP develops a reputation for aggressively defending user rights particularly right to free expression, it is likely to attract more users who generate infringement claims (Zuckerman, 2009). However, architecture and engineering effort have to be added up with some expense to defend user rights and avoid violating the law in the same time. If the costs exceed profit margins, which actually are quite tight in a highly competitive market, OSPs are likely to sacrifice a handful of customers in exchange for avoiding legal review (Zuckerman, 2009). Therefore, an approach to investigate the overblocking in intermediaries would be useful to affirm the justification of censorship, which would lead to transparency of filtering scheme of OSPs. This transparency advantage would attract more users and reduce the costs of defending filtering infrastructure required.

2.6.2 Impact on freedom of expression

When intermediaries are liable for the content created others, they will strive to reduce their liability risk (Center for Democracy & Technology, 2010). Consequently, they are likely to overcompensate, blocking even lawful content. Freedom of expression is thus restricted by the chilling effect of intermediaries. So when users feel lack of free speech online or cannot speak out in social media, they would move to another easily and that would diminish the business of the OSP itself. But if an OSP develops a reputation for aggressively defending user rights, it is likely to attract more users who generate infringement claims (Zuckerman, 2009). However, infrastructures and engineering effort have to be added up with some expense to defend user rights and avoid violating the law in the same time. Intermediary providers are spared the heavy costs linked to supervision and filtering – technically difficult to implement, of dubious

effectiveness and involving significant cost (Council of Europe, 2008; Angelopoulos, 2009). If the costs exceed profit margins, which actually are quite tight in a highly competitive market, OSPs are likely to sacrifice a handful of customers in exchange for avoiding legal review (Zuckerman, 2009).

2.6.3 Impact on innovation

Center for Democracy & Technology (2010) stated that intermediary liability could create disincentives for innovation in information and communications technologies. Companies could less likely to develop new ICT products and services. It also tends to close the market to start-ups, which are often unable to afford expensive compliance staffs. Many businesses may choose to move to operate in countries where intermediaries are granted broad liability protections, resulting in less foreign direct investment in those countries that do not grant such protections. In addition, Von Hippel (1988) indicated that the emergence of technologies that facilitate information sharing and collaboration could induce user-centered innovation. Since the Internet has increased the amount of creative information available to individuals and businesses with low cost of accessing such information, intermediary censorship in social media could create barriers to information exchange and inhibit potential innovation in several markets.

Montero and Van Enis (2011) conclude that despite a precise and effective technology to filter the content at present, it appears that implementation of a filtering measure difficult to reconcile with the right to freedom of expression. They raise the question: how does the filtering measure work without infringing freedom of expression. An approach is to investigate the overblocking in intermediaries to affirm the criteria in censorship, which would reflect the transparency of filtering scheme of OSPs. This transparency advantage would shield the intermediary providers from liability actions and reduce cost to undertake supervision and other infrastructure of filtering systems. Consequently, it would thus promote freedom of expression, attract more users and encourage the boom in information society services.

2.7 How to cope with problematic and illegal content on the Internet

Akdeniz (2004) indicated that the approaches to cope with problematic or harmful content are to encourage self-regulatory, content-monitoring schemes, development of rating and filtering schemes, and increase awareness of users. He also suggested that there should be a partnership or co-operation between government and industry including individual Internet users to involve in Internet governance, in other words, co-regulation. The balance of such partnership is vital to both protect Internet users from harmful and illegal content, and respect the rights to freedom of expression of individual Internet users.

According to Kleinstauber (2004) who authors 'The Internet between regulation and governance', he called co-regulation as regulated self-regulation, where the government does not involve. He suggested that regulated self-regulation is the best way for Internet governance, while conventional law or regulation should be limited as much as possible. This way all relevant stakeholders including representatives of governments, industry, users and citizen action groups can be involved. Without this joint involvement, regulation of Internet will never be successful. Similarly, Marsden (2004) stated that filtering tools to limit access to harmful and illegal content have had only limited success. What is more effective and flexible than censorship by government regulation is co-regulation, which involves multiple stakeholders and balances between government regulation and pure self-regulation. It is vital to keep balance between each actor's participation to achieve intended regulatory objectives of Internet governance. However, self-regulation of stakeholders e.g. ISP, OSP and individual Internet user must be taken into account not only because does it play a significant role to deal with illegal and harmful content, but also it is likely to be viewed positively in freedom of expression. Marsden (2004) thus recommended that an audited self-regulation would be the key to successful Internet regulation, instead of censorship or filtering schemes.

2.8 New Product Development (NPD) Processes

New product development (NPD) is crucial for innovation generation in any organizations. Generally, market pull concept is used as basis for NPD process, which begins from exploration of ideas to commercialization. The most popular NPD model proposed by the consulting firm Booz, Allen and Hamilton Inc. (Booz et al., 1968) consists of 6 steps as follows:

- 1) Exploration – the search for new product ideas to meet company objectives.
- 2) Screening – a quick analysis to determine which ideas are pertinent and merit a more detailed study.
- 3) Business Analysis – the expansion of the idea into a concrete business recommendation including product features and a program for the product.
- 4) Development – turning the product idea into a ready-made product, demonstrable and producible.
- 5) Testing – the commercial experiments necessary to verify earlier business judgments about the product.
- 6) Commercialization – full-scale production and launching of the product into the market place.

In the marketing domain, Kotler (1980) introduces a development process of eight steps:

- 1) Idea generation
- 2) Idea screening
- 3) Concept development and testing
- 4) Marketing strategy
- 5) Business analysis
- 6) Product development
- 7) Market testing
- 8) Commercialization

This research combines Booz et al.'s and Kotler's model for the new product development model of Innovative Retrieval System (IRS) as follows:

- 1) Exploration of ideas – specifying objective and scope of literature review, reviewing literature relating to Internet censorship, intermediary censorship, legislation and social media.
- 2) Concept development – developing questionnaire, conducting in-depth interview, and analyzing and discussing the collected data.
- 3) Product development – analyze social media structure and system, design product architecture, develop product.
- 4) Product testing – test product on social media, review and fix bug in product.
- 5) Commercialization – test new technology acceptance, analyze industry, market and society.

2.9 Research Framework

From the literature review, factors of intermediary censorship can be summarized in Table 2.5. The research framework is then consequently developed as shown in Figure 2.3. The intermediary censorship in Thailand is influenced by several factors, mainly governmental sector, private or business sector, civil society and user. The content that is to be censored comprises both illegal and problematic content, which is the focus of this research study. It is postulated that the impact of excessive censorship by intermediaries, based on harm issue, would lead to inconvenience and inefficient of Internet use, lack of diversity of opinions, violation of citizen's rights in public sphere and inhibition of innovation.

Table 2.5 Literature reviews of factors of intermediary censorship

Factors of intermediary censorship		Literature reviews
Influence	Governmental sector	Freedom House, 2009 Zuckerman, 2009 Sniderman, 2011
	Private sector	Freedom House, 2009 Zuckerman, 2009

Factors of intermediary censorship		Literature reviews
	Civil society	Weckert, 2000 Kleinsteuber, 2004 Harazti, 2008
	User	Kleinsteuber, 2004 Akdeniz, 2004
Impact	Usability and online business	Zuckerman, 2009
	Freedom of expression	Council of Europe, 2008 Angelopoulos, 2009 Zuckerman, 2009 Center for Democracy & Technology, 2010
	Innovation	Von Hippel, 1988 Center for Democracy & Technology, 2010 Montero and Van Enis, 2011

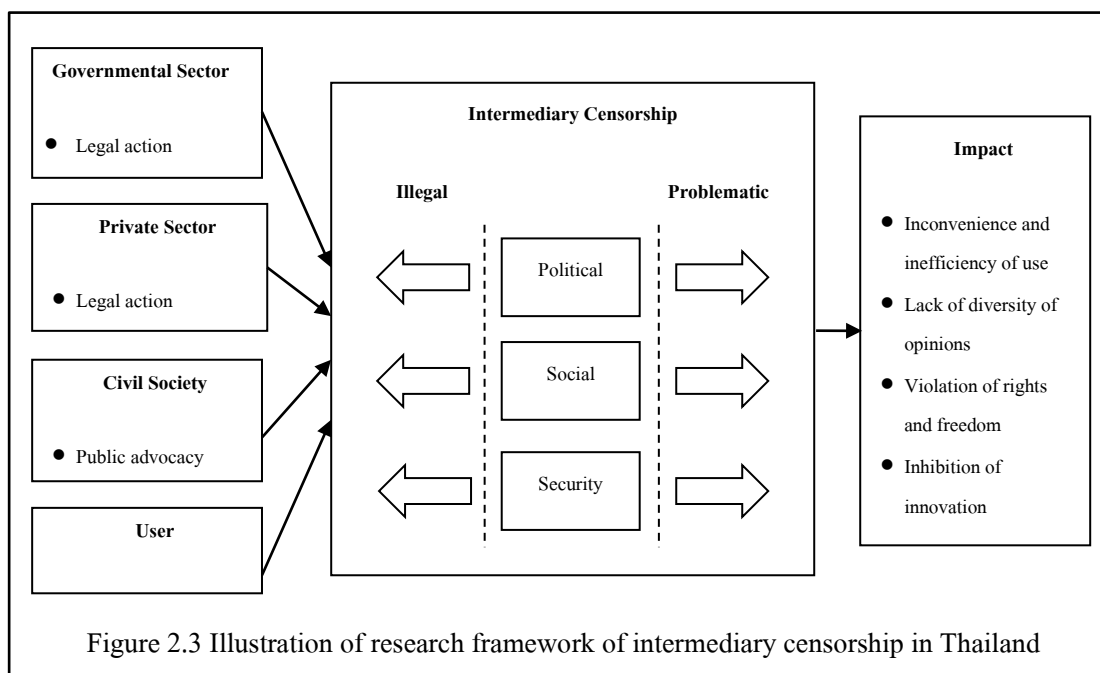


Figure 2.3 Illustration of research framework of intermediary censorship in Thailand

Illegal and problematic content could be categorized into three groups of context: political, social, and security. Illegal content is basically removed under the computer crime law, while content that tends to be problematic is removed under the judgment of OSPs. Table 2.6 shows the categories of content subject to intermediary censorship based on review of related research and the Computer-Related Offence Act B.E. 2550 (2007). It might be noticed that lèse majesté content is classified under national security group. This is because lèse majesté is classified under ‘Offences Relating to the Security of the Kingdom’ in Thailand’s Section 8 of the 2007 Constitution indicating as:

The King shall be enthroned in a position of revered worship and shall not be violated. No person shall expose the King to any sort of accusation or action.

This implies that any person commit an offence to the King would commit an offence to the national security as well.

Hate speech is another issue that is unclear and problematic. Oftentimes, it gets mixed up with cyber bullying, of which the meaning is quite similar. However, based on the Additional Protocol to the Convention on Cybercrime (2003), hate speech is defined as ‘any written material, any image or any other representation of ideas or theories, which advocates, promotes or incites hatred, discrimination or violence, against any individual or group of individuals, based on race, color, descent or national or ethnic origin, as well as religion if used as a pretext for any of these factors’. On the other hand, cyber bullying is more about harm and harassment in general issues on the Internet. It is a global concerned issue for parents, whose kids spend a lot of their time online these days. In the United States, cyber bullying gets attention from U.S. Federal Legislative Responses as the Megan Meier Cyber bullying Prevention Act (2009) stating that ‘Youth who create Internet content and use social networking sites are more likely to be targets of cyber bullying’. This is why cyber bullying is classified only in social category, while hate speech is addressed in all categories.

Table 2.6 Content subject to intermediary censorship

Content	Illegal	Problematic
Political	-	<ul style="list-style-type: none"> • Hate speech • Political dissent and satire
Social	<ul style="list-style-type: none"> • Alcohol and drugs • Defamation • False or forged computer data • Gambling • Piracy • Pornography • Privacy 	<ul style="list-style-type: none"> • Absurdity or nonsensical issue² • Commercial use • Conflict • Cyber bullying • Dating • Free expression and media freedom • Hate speech
Social	<ul style="list-style-type: none"> • Prostitution 	<ul style="list-style-type: none"> • Human rights • Minority faiths, rights and ethnic • Misuse • Public and health issues • Sensitive or controversial history • Sex education and family planning • Sex orientation / Gender Identity
Security	National security Lèse majesté Religious commentary and criticism Terrorism and separatism	Foreign relations and military Hate speech Militants and extremists

Source: Based on review of related research and the Computer-Related Offence Act B.E. 2550 (2007)

² Absurdity or nonsensical issue is the content that has no meaning, makes no sense or does not convey any coherent meaning among context.

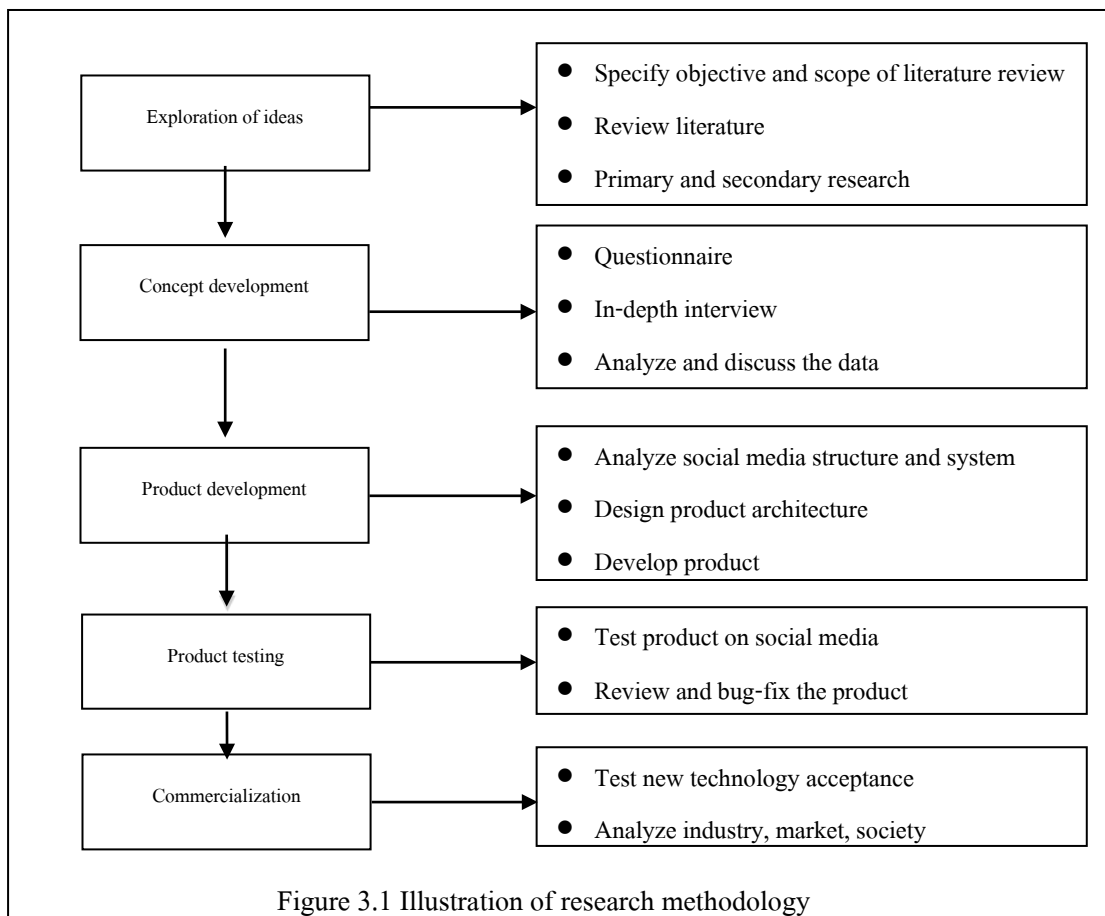
CHAPTER III

RESEARCH METHODOLOGY

The research aims to explore and collect data to investigate existing problem and public perception about intermediary censorship in Thailand, while exploring plausible requirement for a tangible Censorship Index. Such data includes types of removed content in online social media, criteria of censorship in online social media, impact of censorship to users and OSPs, and requirement for a tangible Censorship Index.

3.1 Research methodology

This research comprises several methods and steps in accordance with conceptual framework. The research methodology is shown in Figure 3.1.



1) Exploration of ideas

Exploration includes specifying objective and scope of literature review, reviewing literature relating to Internet censorship, intermediary censorship, legislation and social media.

2) Concept development

Concept development includes developing questionnaire, conducting in-depth interview, and analyzing and discussing the collected data.

3) Product Development

All data collected from empirical research are analyzed to design and develop the product, IRS. This research also focuses on online discussion forum, Pantip.com, which is built up with distinct architecture and system. Then IRS architecture is developed to be compatible with the Pantip.com.

4) Product Testing

Prototyped IRS is tested on Pantip.com to adjust efficiency and fix bugs. All required data are also collected from the website to be analyzed in this research.

5) Commercialization

IRS is reviewed by experts and lead users according to Technology Acceptance Model (TAM). Several aspects such as industry, market and society are also analyzed to estimate the acceptance of the product.

3.2 Concept development

The concept development comprises both quantitative and qualitative research to find out several factors concerning censorship in social media, and to build a database for innovation development. Quantitative research used questionnaire to survey Pantip.com user's opinion while qualitative research used in-depth interview with four major stakeholders influencing social media censorship: governmental agencies, private or business units, civil society groups, and online service providers.

3.2.1 Questionnaire-based survey

Questionnaire is used to gather data from Pantip.com users to identify censorship situation, impact of users, social media accountability, and requirement for a tangible Censorship Index. Since total number of Pantip.com users is more than 600,000 unique IPs per day, the sample size for questionnaire survey can be calculated by Taro Yamane's formula (1967) at 5% allowable error.

$$n = \frac{N}{1 + Ne^2} = \frac{600,000}{1 + 600,000(0.05)^2} \approx 400$$

3.2.2 Questionnaire design

Questionnaire is separated into 4 sections:

- a) Personal data
- b) Social media use
- c) Censorship in social media
- d) Monitoring system for censorship index in social media

Section 1, 2 and 4 of questionnaire are questions and answer choices. Section 3 is established as a 5-point Likert scale where 1 is strongly disagree, 2 is disagree, 3 neither agree nor disagree, 4 is agree, and 5 is strongly agree. Then the questionnaire is tested by media experts for reliability and validity. Questionnaire is shown in Appendix A.

3.2.3 Data collection and analysis

Questionnaire is sent out for 450 units and 200 units are successfully completed and returned with 44.4% response rate. The collected data are then analyzed by descriptive statistics to find out the demographic of Pantip.com users, types of content removed from Pantip.com, impact of censorship, and requirement for monitoring system for censorship index.

3.2.4 In-depth interview

In-depth interview is used to collect such preliminary information as opinions and experiences regarding intermediary censorship in social media. Eighteen organizations in social media and Internet industry are selected from four different groups including governmental sector, private or business sector, social organization, and OSP as follows:

a) Governmental agencies: IT Crime Prevention and Suppression Bureau MICT, Department of Special Investigation (DSI), Electronic Transactions Development Agency (ETDA), The National Human Rights Commission of Thailand (NHRC), The National Broadcasting, and Telecommunication Commission (NBTC)

b) Private or business units: True, CS Loxinfo, and CAT Telecom

c) Civil society groups: iLaw, Thai Netizen, Siam Intelligence Unit (SIU), and Thai Webmaster Association

d) OSPs: Pantip.com, Dek-D.com, Google (Thailand), Manager.co.th, and Prachatai.com

The semi-structured interviews are conducted by face-to-face interviewing with open-ended questions to collect information from governmental sector, private sector, social organization, and OSP. Analysis of qualitative data is undertaken in two ways. First exploratory data is analyzed to provide an indication of the website detail. Secondly, for the purposes of generating an understanding of intermediary censorship, qualitative data collected during in-depth interview is inductively analyzed, which involved the reading and re-reading of transcripts and field notes, the search for similar emergent themes and the use of codes to bring order, structure and meaning to raw data (Shaw, 1999). These emerging themes are allocated to appropriate research questions and thus to their respective components of the research framework. In addition, secondary data and the literature are used to compared and contrasted to analyze the result of this research.

3.3 Product Development

After the analysis of the data from exploratory research, Innovative Retrieval System (IRS) model is developed to investigate intermediary censorship in social media, pattern of censorship and impact of censorship to business and users. It is expected to promote users' freedom of expression and transparency in emerging technology of social media and to assist the censorship practices of OSPs by exposing the Censorship Index and criteria used in content censorship by online intermediaries. The components of IRS are:

- a) **Gathering Module** – is used to monitor and gather content in social media.
- b) **Content Analyzer** – is a centralized component that receives data from the gathering module and analyzed them.
- c) **Visualizing Module** – is a program that provides interface for users to visualize the information.

3.4 Product Testing

A multi-step, multi-method design is used to investigate the removed content on Pantip.com and to analyze types or context, frequency, and influence of censorship. Table 3.1 summarizes the research procedure, along with the methods and research questions associated with each step in the study.

A semi-structured, in-depth interview was conducted with Wanchat Padungrat – managing director – in July 20, 2011 and Worapoj Hirunpraditkul – Webmaster in August 30, 2012. In order to best achieve the aim of answering the research questions relating to intermediary censorship, it was important to use the research framework as a guide to data collection. Thus, interview questions were broadly related to the framework. Questions were open-ended giving interviewee the opportunity to develop his answers and to provide narratives as broad as he deemed appropriate.

Table 3.1 A multi-step, multi-method process to investigate censorship in Pantip.com

Step	Research Questions	Methods
1	- What are the criteria of censorship in online social media?	In-depth interview
2	- What types of content are filtered by intermediaries? - Does overblocking happen in online social media in Thailand?	IRS and Content analysis

IRS was used to collect content removed from forums in PantipCafe, which is the most popular feature in Pantip.com. The collection time frame was four days from May 25-28, 2012. Frequency of data collection was every five minutes. Targets of data collection were sampled from four discussion forums in PantipCafe: Chalermthai, Ratchadamnoen, Siamsquare and

Toh Khao. These forums were selected based on diversity of content. Chalermthai contains entertainment content. Ratchadamnoen contains political content. Siamsquare contains teenager content. Toh Khao contains news or current issues content.

3.5 Commercialization

The verification of the quality of the IRS model is done by validity and reliability check by four experts and lead users. The accepted value of validity and reliability should be more than 70%. Data of intermediary censorship in social media will be collected through testing of IRS with three main variables:

- a) Types of content removed
- b) Pattern of censorship
- c) Overblocking rate

In-depth interview is used to collect data regarding technology acceptance of user. Technology acceptance model (TAM) will be conducted in this stage. This model, proposed by Davis (1989) as shown in Figure 3.2, is mainly used to study the acceptance coming from human behaviors.

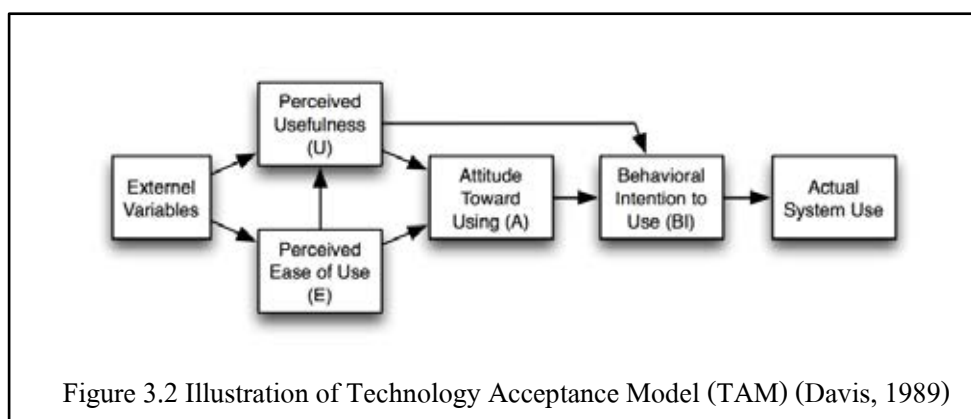


Figure 3.2 Illustration of Technology Acceptance Model (TAM) (Davis, 1989)

CHAPTER IV

EMPIRICAL RESEARCH IN INTERMEDIARY CENSORSHIP

This survey comprises both quantitative and qualitative research to find out several factors concerning censorship in social media, and to build a database for innovation development. Quantitative research used questionnaire to survey Pantip.com user's opinion while qualitative research used in-depth interview with four major stakeholders influencing social media censorship: governmental agencies, private or business units, civil society groups, and online service providers.

4.1 Quantitative research

Four hundred and fifty questionnaires were used to collect Pantip.com user's opinion. The response rate was 44.4% or 200 questionnaires. The results can be categorized as follows:

1) Background of Pantip.com users

Most users have been using Pantip.com for 3-4 years. They use the web board 2-3 times a week with a couple hours a day as shown in Table 4.1.

Table 4.1 Background of Pantip.com users

Aspect	Result	Percentage (%)
Period of use	3-4 years	31.5
Frequency of use	2-3 times a week	61.2
Time of use	1-2 hours a day	49

2) Forum use

Top three forums used by most users in Pantip.com are Chalermthai, Siamsquare, and Toh Khao as shown in Table 4.2.

Table 4.2 Forum used by most users

Forum	Percentage (%)
Chalermthai	21.3
Siamsquare	15.4
Toh Khao	10.9
Others	52.4

1) Membership of Pantip.com users

Most users in Pantip.com are registered member (67%). Most of them (88.8%) used national ID number to get the membership before accessing the website.

2) Types of comment in Pantip.com

Users in Pantip.com made comments in four main types of content comprising product or service, third person related, social or public issue, and politics as shown in Table 4.3.

Table 4.3 Types of comment

Types of comment	Percentage (%)
Product or service	41.8
Persona	23.1
Social or public issue	12.2
Politics	6.1
Others	16.8

3) Content removed by administrator

The result as shown in Table 4.4 indicated that, in the perspective of most users in Pantip.com, top three types of content that is likely to be removed are lèse majesté, political dissent, and cyber bullying.

Table 4.4 Content removed by administrator

Types of content removed	Percentage (%)
Lèse majesté	58.1
Cyber bullying	22.8
Political dissent	17.3
Others	1.8

1) Criteria of censorship

From the point of view of Pantip.com users, the top three criteria of censorship managed by administrator are based on computer crime law, website policy, and administrator's judgment as shown in Table 4.5.

Table 4.5 Criteria of censorship

Criteria	Percentage (%)
Computer crime law	39.4
Website policy	31.5
Judgment of Administrator	17.7
Others	11.4

2) Perspective of users on censorship in social media

Pantip.com users' perspective on censorship in social media is as following in Table 4.6.

Table 4.6 Users' perspective on censorship in social media

Censorship in social media	Level of opinion	Percentage (%)	Mean
Webboard is a public space to exchange opinion freely. Thus there should not be censorship at all.	Disagree	37	2.76

Censorship in social media	Level of opinion	Percentage (%)	Mean
Censorship in social media infringes people's rights to know.	Disagree	38.5	2.80
Online service provider is not content creator but only a conduit of data providing space for opinion exchange. It should not be liable for content disseminated.	Disagree	32	2.90
Online service provider is a gatekeeper responsible for all content posted in the system. It should screen the content before dissemination.	Agree	49	3.90
Webboard is a public space for content exchange and freedom. Thus users should have rights to participate in screening and filtering, and to flag the illegal or problematic content.	Agree	43.5	3.96

Table 4.6 shows that users do not agree that there should not be censorship at all. This implies that social media like web board is not a public space to exchange opinion freely. Most users also do not agree that censorship in social media infringes people's rights to know. Moreover, they think that OSP should not be free of liability for the content posted on its service. On the other hand, most users agree that online service provider should screen the content before disseminate as a gatekeeper of traditional media. And most users would like to participate in content screening and filtering procedure.

3) Users' opinions on censorship investigating system

Users' opinions on censorship investigating system are shown in Table 4.7.

Table 4.7 Users' opinion on censorship investigating system

Opinion	Yes (%)	No (%)
Censorship in social media should be transparent and disclosed for public investigation.	69.5	30.5
Social media should publicize its policy on censorship.	93	7
Social media should be rated based on its censorship level.	71.5	28.5
You would be interested in using censorship investigating system for rating social media	68.5	31.5

Also, the users' opinion showed that rating on censorship level in social media should express several indicators, particularly on criteria of censorship, types of content removed, characteristics of content removed, and level of censorship, as shown in Table 4.8.

Table 4.8 Indicators of censorship rating in social media

Outputs	Yes (%)	No (%)
Criteria of censorship	66.5	33.5
Types of content removed	64	36
Characteristics of content removed	57	43
Level of censorship	41.5	58.5

4.2 Qualitative research

In-depth interview was used to assess the opinions and attitudes towards online intermediary censorship of four groups of stakeholders who mainly influence censorship in social media. These stakeholders comprise governmental sector, private or business sector, civil society, and online service provider (OSP) as follows:

1) Governmental agencies: IT Crime Prevention and Suppression Bureau MICT, Department of Special Investigation (DSI), Electronic Transactions Development Agency

(ETDA), The National Human Rights Commission of Thailand (NHRC), The National Broadcasting, and Telecommunication Commission (NBTC)

2) Private or business units: True, CS Loxinfo, and CAT Telecom

3) Civil society groups: iLaw, Thai Netizen, Siam Intelligence Unit (SIU), and Thai Webmaster Association

4) OSPs: Pantip.com, Dek-D.com, Google (Thailand), Manager.co.th, and Prachatai.com

There were three main issues in this study to acquire from these stakeholders: 1) policy and criteria of censorship in social media, 2) impact of censorship, and 3) mitigation of impact of censorship

4.2.1 Policy and criteria of censorship in social media

a) Governmental agencies

All governmental agencies agreed that policy and procedure of censorship is basically in accord with the criteria of Computer-related Crime Act 2007, which principally protect the dissemination of computer data that cause damage or harmful to national security or the public, for example pornography, gambling, terrorism, and lèse majesté. Not only policy and criteria have been publicized to all Internet users but also has website administrator been designated to monitor the illegal and harmful content to ensure the compliance with the law. Some of governmental agencies would have more authority and responsibility to protect Internet user' security i.e. ThaiCERT (Thailand Computer Emergency Responses Team), regulated by ETDA (Electronic Transactions Development Agency), has to handle the computer security incidents especially financial fraud and false content. An officer from IT Crime Prevention and Suppression Bureau MICT who was the interviewee stated that website administrator has to be responsible for the content according to the Computer-related Crime Act 2007.

“You can't say that you don't know the law or policy. As long as you work in this industry, you have to comply with the rules. Someone would like to say that the law infringes users' freedom of expression. But you know what? The law has been enacted by members of the

House of Representative, which were elected by citizen in democratic society. This means most people agree with the law. ”

b) Private or business units

ISPs agreed that content suppression and blocking access are not their responsibility. They think they are only the conduit of computer data unless it is the governmental or court order to manage or remove such data. Yet, they feel adamant to block websites when a court order is issued to them. Formerly, ISPs might have been able to refuse to store data with the claim that it was the private information of their clients, but the provision in Section 26 of Computer-related Crime Act 2007 makes it imperative for ISPs to store computer traffic data for at least 90 days from the date on which the data is input into a computer system, and any breach of this obligation may result in a punishable offence. An interviewee from True insisted that ISPs could not monitor the content in their system. Their service is only to provide data communication for customers with privacy.

“We have nothing to do with it. We are only the conduit of computer data. When customers come to us, they want to be ensured that their data are safe under our privacy policy. However, if there is a court order asking for suspected data in our system, we would go and look into it case by case.”

c) Civil society groups

Most of interviewees indicated that Thailand should not have an explicit censorship policy and law on social media or Internet. An officer from iLaw stated that existing law and legal provisions about defamation or national security in Penal Code should be enough to manage the content in the Internet.

“Who’s gonna tell what content should or should not be on the Internet? I think people should learn by themselves to deal with both good and bad content. And we have enough law to manage those sorts of content, for example defamation provision in Penal code.”

However, if there should be the censorship law, it should be administered in different level depending on some criteria e.g. place, person, or time. For instance, pornography should be censored for children while it should not be censored for adult. School, workplace, and home should not access the Internet at the same level. Interviewee like an officer from ThaiNetizen claimed that this different level of censorship could be called website rating or ranking, which is to filter user for data access.

“Rating could be used instead of censorship. It would designate who can watch, listen, or access what content depending on different criteria such as age or place. Anyway, who should responsible for setting the criteria? If we all accept that there should be someone who is responsible for this job, we would not be able to learn and grow up. People would lack the ability to screen quality of content by themselves.”

d) OSPs

Most of the studied OSPs have similar policy on censorship, which is based on relevant law, for example, Computer-related Crime Act 2007 and Penal Code. This policy is posted on the web policy page to inform user on what content is not allowed to disseminate on the website. Basically, content like cyber bullying, hate speech, pornography, gambling, and lèse majesté are not allowed in all websites. However, the interviewees accepted that practically filtering or censorship in website is almost not possible because of a great deal of data and content. To monitor in every page of website is costly and time consuming. Most websites thus utilize flagging system³, allowing user to flag the harmful and illegal content so website administrator could follow with the execution. However, each website could run different or additional criteria depending on its characteristics or target group. For example, Dek-D.com is a website for teenager under 15 years old. Its policy on censorship is thus clear, straightforward,

³ Flagging system is a service that Web 2.0 allowing user to flag a thread or comment by clicking its flag icon or link to tell a site moderator that a comment requires moderator attention.

and stringent. Content like flirting, gambling, and pornography is absolutely not allowed on the website. Pantip.com also has different criteria and policy on censorship. Commercial use, besides cyber bullying, hate speech, pornography, gambling, and lèse majesté, are not allowed on the website. One of the most well-known filtering schemes of Pantip.com is the “one ID one account” policy, which is the process requiring 13-digit national ID number or passport ID number for subscription. This policy aims to force users to be responsible for their threads or comments in the webboard. If users post illegal or content un-allowed by the website policy, they would be banned and could not re-subscribe ever. On the other hand, foreign website like Google.com has only basic criteria on censorship based on Computer-related Crime Act 2007 and Penal Code, without any additional criteria or limitation on access to information.

“Basically, Google does not censor as you know we believe in freedom of expression. However, this concept depends on where we reside. China, Thailand, or the United States have different rules of law, so at least we have to comply with it. Other than that, we are free.”

4.2.2 Impact of censorship

a) Governmental agencies

Most governmental agencies stated that although censorship affects the Internet users in some ways but it is a mechanism to keep order of society and the safely use of the Internet. Since illegal content comprises such materials as pornography, prostitution, terrorism, human trafficking, and piracy, which are quickly disseminated online, they should be removed to protect or mitigate the impact to users. However, the NHRC (National Human Rights Commission) indicated that censorship, on the other hand, infringes the freedom of expression and the right to know of the public. For instance, conservative society might control such content as religious or sexual education, which excessively dominates the freedom and attitude of citizen.

“Political content is not allowed to mention in some parts or programs in Thai media. Some websites will censor political dissent

because it would ruin the atmosphere of the sites. Censorship would then inhibit people's capacity to learn the diversity of idea and opinion in their society. People won't be able to learn how to accept other's view and will be lack of vision and awareness in different attitude."

In addition, officer from NHRC stated that interpretation of many sections of the law gives the authorities broad latitude to use their own discretion. Some clauses can be subject to various interpretations, which might lead to false censorship.

b) Private or business units

Although ISPs agreed that they are only a conduit of computer data but it is clear that Section 15 penalizes ISPs for 'intentionally supporting or consenting to' the dissemination of offensive messages under Section 14 and exposes them to the penalties as those posting offensive information. The definition of intentional support or consent in Section 15 is unclear, which has led to problems for ISPs. For example, filtering infrastructure, personnel, and financial investment have to be provided to monitor traffic on the Internet. However, to monitor traffic of content on the Internet is almost not possible due to a great number of content, and so lead to risk of penalization of ISPs. Moreover, there are no clear guidelines between the MICT and all ISPs as to how to communicate with users the reasons for the blocking. Inconsistent legal enforcement is also an issue, with some ISPs receiving orders to block certain websites, but others not, and so clients of the former complain.

c) Civil society groups

All organizations agreed that two major impacts of censorship are impact to freedom of expression and impact to the right to information. Moreover, legal enforcement to censorship leaves burden to both ISPs and OSPs to invest more infrastructure and personnel to monitor traffic on the Internet. All informants stated that despite a large amount of budget invested, it is not possible to monitor or block all illegal or problematic websites because there are new websites created all the time. Meanwhile a staff from ThaiNetizen indicated that censorship would affect citizens' capacity for learning, maturity, creativity, and diversity of

idea, which are the raw material of innovation. If Thai societies are ruled by censorship, knowledgeable environment and innovation are hard to occur. Moreover, officer from SIU stated that censorship also affects the image of the nation. According to ranking of Freedom of the Net by Freedom House, Thailand has very low ranking, which would impact the economy of the country as investors are not assured of the censorship policy, and so would affect the industry. For instance, the case of Youtube blocking during coup d' etat in 2006, the whole website was blocked due to some illegal content in some web pages, which impact all users without notices.

However, a staff from Thai Webmaster Association stated that although censorship would impact users' freedom of expression, users have to learn somehow that Web 2.0 administered by OSPs is not a totally public space.

“Users have to be aware that website is actually a private business and has ‘term of use’ for users to learn beforehand. It is not a public space where you have 100% freedom. Just like a house, every website has rules. If users break the rules, they have to be moved out.”

d) OSPs

Most OSPs had identified three major impacts of censorship.

1) OSPs face high expenditure on automatic and manual content filtering system, human resource, and 90-day computer traffic data storing system in accordance with computer law.

2) Censorship is inconsistent, with different OSPs blocking different information due to different interpretations of the provisions of the computer law, which are generally vague. For example, the computer law is unclear on amount of time specific and procedure of taking down the illegal content.

3) OSPs are fear of heavy penalty under the provision for intermediary liability. When users feel lack of free speech online due to stringent censorship, they would move to another website easily and that would diminish the business of the deserted OSPs.

A staff from Prachathai.com stated that computer law is the cause of several problems and has to be amended as soon as possible.

“Actually, aim of computer law is to suppress computer crime in computer system such as hacking email or piracy on the Internet. But, instead, the law is used to execute false content in computer system. This is quite confusing because there is a specific law for that already for example defamation law in Penal Code. So it turns out that same guilty comes with different penalty from different law. Where is the standard?”

“Also, provision in Section 15 for intermediary liability in computer law truly inhibit the business of operator. It will ruin the interactive sphere of Web 2.0 because OSPs are fear of the penalty and choose to self-censor instead. Innovation would not occur. Foreign investment would be lost. Local operators would choose to locate their servers outside the country, so we have more expenditure in overall.”

4.2.3 Mitigation of impact of censorship

a) Governmental agencies

An officer from DSI (Department of Special Investigation) admitted that today illegal and problematic content disseminated on the Internet is managed under unclear procedure. There is no guideline in computer law indicating which content is either problematic or illegal. This situation makes ISPs and OSPs use their own judgment to control such content. Most informants stated that guideline, standard, or agreements of censorship procedure are critical to mitigate the impact to online intermediaries and users. Also, content self-regulation among online intermediaries and users should be promoted to achieve comprehensive content monitoring. Moreover, disclosure of online censorship practice would be another means of mitigation to users, as it would increase accountability and transparency of social media to users, which would contribute to users' informed judgment in use selection of social media websites.

b) Private or business units

As mentioned earlier, all ISPs interviewed indicated that they are only the conduit of computer data. It would not be possible to monitor or filter all illegal content flawlessly. Also, disclosure of censorship practice in social media would not be able to solve or mitigate any impact of censorship.

c) Civil society groups

Most of civil organizations agreed that it is hard to regulate or control the content on the Internet due to the great deal of content. Therefore, censorship should be practiced differently in each level of use. For example, censorship in home, school, and workplace should be administered differently, whereas use in national level should not be censored at all. Interviewees insisted that it is users' freedom and judgment to access data on the Internet, as it is the world trend. If Thai policy or law is opposed to this trend, it is hard for society to comply with as well. Moreover, ISPs and OSPs should administer self-regulation and promote users to criticize or review openly instead of censorship. This way would create knowledge-based society. Also, mitigation of the impact of censorship is to disclose the censorship practice in social media. Disclosure of what and how content is removed would lead to transparency of service providers. It is also safe for users as they could decide on what content should be disseminated to avoid censorship or lawsuit.

d) OSPs

Most of OSPs agreed that computer crime law should be improved to establish clear procedure to manage illegal and problematic content. Law enforcement must also be practiced straightforwardly and more systematic to eliminate confusing management of service providers, which leads to self-censorship as to avoid violating the law. Moreover, heavy penalty of computer crime law exposes higher risk to business growth of OSPs and deter foreign investment in this industry. A staff from Prachathai.com also stated that disclosure of censorship in social media would benefit both users and OSPs. Users could use website safely under informed judgment whereas OSPs would create accountability and transparency through reported self-monitoring.

“As nature of social media needs community participation, censorship rating or index should get users involved to reflect self-regulation practices. However, this index would succeed only when government is not involved.”

4.3 Discussion

According to the survey, it is apparent that users have usually found censorship in Pantip.com. They admit that website administrator does his job in accordance with computer crime law and website policy. Most users also realize that Pantip.com as online service provider is a gatekeeper responsible for all content posted in the system. It should screen the content before dissemination. However, users think that web board is a public space for content exchange and freedom. Thus they should have rights to participate in screening and filtering, and to flag the illegal or problematic content. Moreover, users require the transparency on criteria of censorship rather than removing content without notice as currently practiced. Therefore, if there will be a system to show what types of content removed, what criteria the censorship based on, and the level of the censorship in website, they would be interested in using it.

On the other hand, all governmental agencies certainly think that censorship is crucial to control the illegal and harmful content on the website especially the social media, which is more powerful in data dissemination. Their censorship policies are basically shaped by computer crime law. Some agencies have more stringent policy and requirement than what required by the law. Consequently, they shape all other stakeholders' censorship policy inevitably. For example, ISPs stated that they usually do not have policy to remove content on their traffic data unless there is a court order or governmental intimidation requiring them to do so. OSPs are also a stakeholder whose policies are shaped by computer crime law. Although, they think it is not possible to monitor all content on the website, they still have to find procedure to do so.

However, civil societies are another issue. This stakeholder indicated that censorship is necessary only for some content that harm people e.g. pornography, gambling, terrorism, or other illegal issues as accepted internationally. Other than that such as political, gender, or ethnic content should not be censored at all. For example, political dissent is an issue that

citizens have to learn to accept others' political view. When people admit different view of other people or diversity of idea, society will mature.

CHAPTER V

PRODUCT DEVELOPMENT

5.1 Model of Innovative Retrieval System (IRS)

According to research framework mentioned earlier, self-censorship of intermediary in Thailand has not been studied in term of filtering scheme, impact of the business and users, and pattern of censorship in social media. It is not possible to monitor the self-censorship without a special tool that can monitor missing threads⁴ or comments⁵ all the time. Therefore, an Innovative Retrieval System (IRS) model is introduced to investigate this study gap expected to promote users' freedom of expression and transparency in emerging technology of social media and to assist the censorship practices of OSPs by exposing the censorship index and criteria used in content censorship by online intermediaries. The model of IRS is shown in Figure 5.1.

5.1.1 Component and process of IRS

a) Gathering module

A web crawler or a spider periodically collects data from target websites every five minutes and store the retrieved content in content database. The gathering process can be automated or designated as frequently as possible.

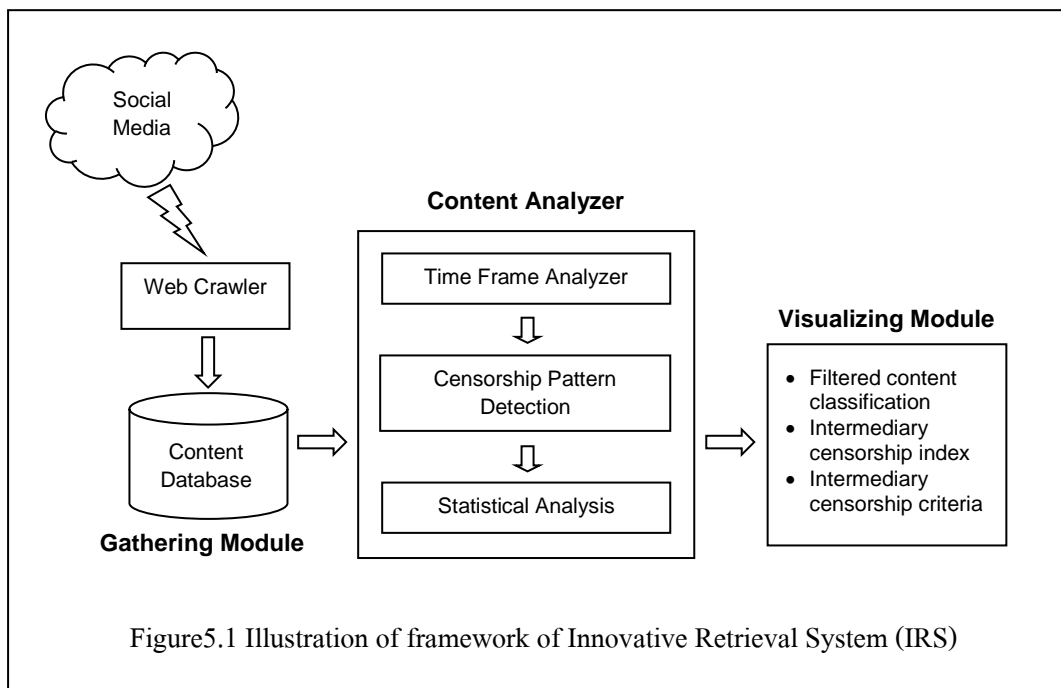
b) Analyzing module

The collected data from content database is transferred to the time frame analyzer. In the time frame analyzer, the content is compared to the content collected previously to identify the missing data using standard shortest edit distance method. In this study, the missing content is assumed to be removed by censorship policy of the website owner so it is retrieved and classified by human based on context of censorship i.e. political, social, or national security. It is also compared against computer law to detect the overblocking. All data are thus

⁴Thread is a group of messages or comments posted by users sharing a common subject or theme.

⁵Comment is a message that user posts on any thread in online discussion forum.

analyzed further on statistics of censorship and content filtering pattern that appear in a certain social media.



a) Visualizing module

Finally the analyzed data will be reported as ‘intermediary censorship scheme’, which would be a baseline for censorship index, in the visualizing module. The result includes criteria of censorship, filtered content classification and overblocking. The censorship criteria of social media are also determined to reveal factors that may shape censorship pattern such as politics, society, and chilling effect.

5.1.2 Opportunities and Challenges

The opportunity of IRS is to mitigate impacts occurred in social media industry by investigating the types of content that are filtered and criteria used. Also, the extent to which content and classification are blocked will be identified. By so doing, a more transparent filtering system can be rendered, hence empowering users to ensure intermediaries’ accountability to them. However, the big challenge of IRS is law, both computer crime law and defamation law, which are criminal offences. Imprisonment with heavy penalty is more threatening to freedom of expression than monetary damages. This causes chilling effect, which

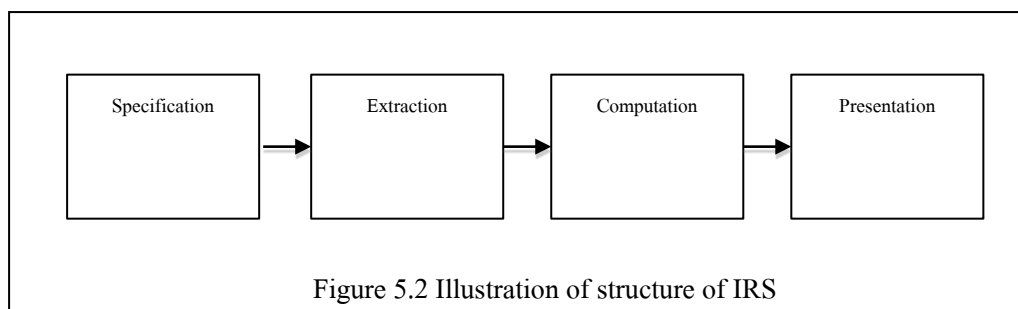
is the main threat used to silence any person making comment in good faith on matters of public interest. As long as the rules are not revised, IRS could not benefit much to people and businesses even though it would help justify the censorship in social media.

5.2 IRS System and Design

Prototype of IRS system and design interface is shown in Appendix B. The system is initially built under Microsoft Windows software. It includes:

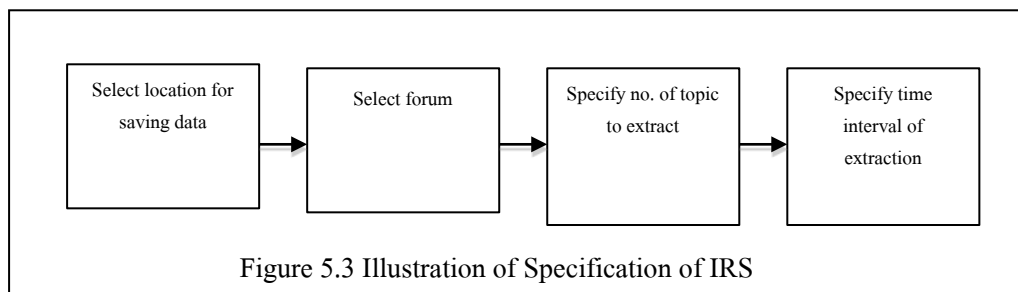
a) System of IRS

The structure of IRS includes four main parts: Specification, Extraction, Computation, and Presentation as shown in Figure 5.2.

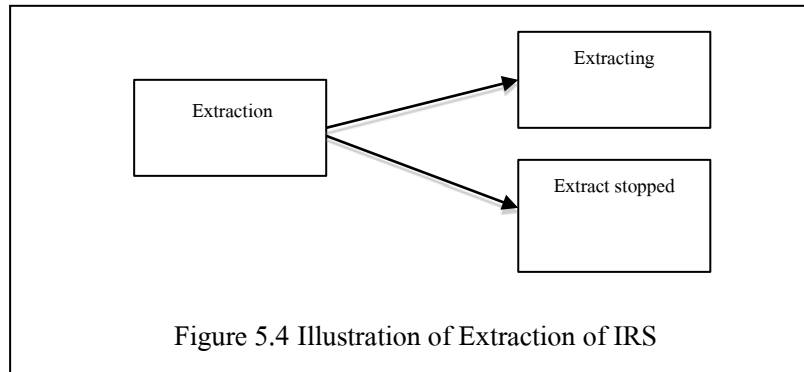


b) Specification

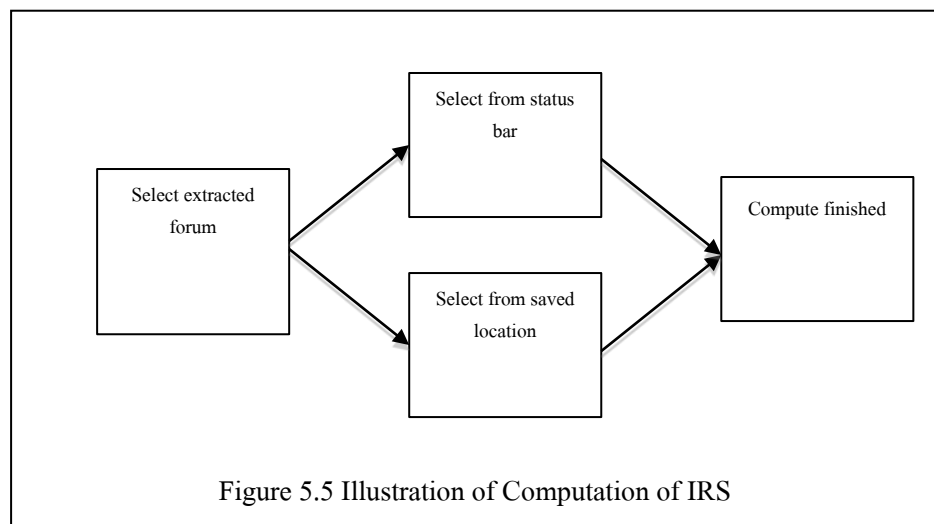
User has to select location for saving data, select forum for extraction, and specify number of topic to extract and time interval of extraction in minute as shown in Figure 5.3. In this case, specify 100 topics to extract in every 5 minutes.



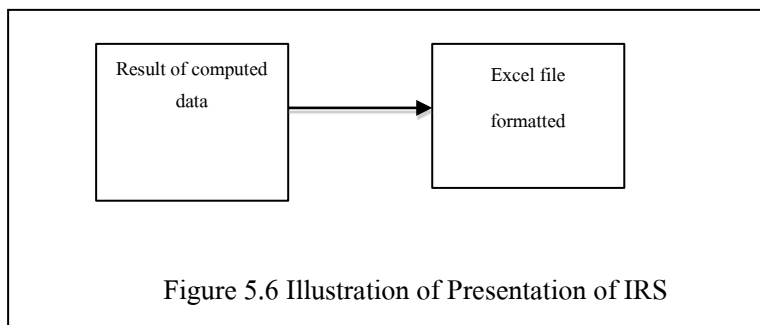
- a) Begin extraction and the boxes on the right hand side will display forums being extracted as shown in Figure 5.4. Extraction could be stopped by selecting required forum and click 'stop extract'. The stop sign would be presented in status box.



- b) To analyze the collected data, select menu tab 'Compute section' and there are two options to select data to analyze. First, select the extracted forum on the right hand side and click 'Begin compute' as shown in Figure 5.5. Second, click 'Choose the save location' to select extracted forum in folders and click 'Begin compute'. When the analysis has finished, the status box on the right hand side would displayed 'Compute finished'.



c) The result of analyzed data would be shown in excel file. It contains several aspects including date and time of data collection, identification numbers and topics of removed threads and comments, content of removed threads and comments, log-in name, and attached files as shown in Figure 5.6.



5.3 Technology, Innovation and Management (TIM) of IRS

5.3.1 Emerging Technology of IRS

Frequently, the new technology may draw on several underlying families of technologies that fuse together in the new application domain (Yoffie, 1997). IRS is developed by the convergence of existing technologies and is expected to offer a new form of service. It embraces technologies and knowledge in computer engineering, statistics and Internet domain, and applies to the media domain, which is a new environment that has an abundance of resources and values supported by users in the new domain. The application of emerging technology in a new domain would cause the destruction of the incumbent technology or produce discontinuous “creative destruction” across several industries (Christensen, 1997). However, emerging technology is highly volatile and hard to predict the viable marketing strategies and profitable business models (Srinivasan, 2008). Its application is thus limited and the commercial value is not apparent.

5.3.2 Social Innovation of IRS

Serrat (2010) stated that social media is the integration of technology with social interaction to create value. It rests on such Internet tools as blogging services, social networking services and online discussion forums that enable shared community experiences through multidirectional conversations that create, organize, edit, combine, and share content. These

interactive activities of users in Internet domain could create innovation as mentioned by Von Hippel (1988) indicating that the emergence of technologies that facilitate information sharing and collaboration could induce user-centered innovation. The locus of innovation moving from within the firm to users or individuals of products and services is called the democratization of innovation (Von Hippel, 2006). With continuously improving quality of computer software and hardware combined with improved access to easy-to-use tools and components of innovation has fueled the growing role of customers in the innovation process (Srinivasan, 2008). It is thus important to make social media freely to use, share, and available to others could contribute to innovation for the public as well. However, rules and regulations about censorship in social media have sometimes gotten out of balance, overblocking freedom of expression, stifling innovation and retarding growth.

IRS aims to solve this imbalance of censorship in social media, which would likely contribute to improvement in citizen's freedom of expression and right to know. This public goal of IRS would be considered as social innovation, which is a new model that simultaneously meets social needs and create new social relationships or collaborations (Murray, Caulier-Grice and Mulgan, 2010). Social innovation could be implied as a new idea that has potential to improve either the quality or the quantity of life (Pol and Ville, 2009). Mulgan et al. (2007) also assert that social innovations become more important precisely in the areas where commercial and existing public sector organizations have failed. In this perspective the things they evidence include: an information and news portal based on the Web 2.0 created by Internet users in South Korea; an Internet forum Australia established for youths to combat depression and a social company in London that produces a magazine commercially run by the homeless. Most of the social innovations evidenced distinguish themselves by virtue of their orientation towards social goals and needs and that they have also succeeded in establishing themselves commercially.

However, the term "social" is really used in the sense of a concept aimed at the public good. The Centre for Social Innovation (2008) has stated that social innovation refers to new ideas that resolve existing social, cultural, economic and environmental challenges for the benefit of people and planet. Therefore, the individual or private benefit is not a primary goal. Howaldt and Schwarz (2010) stated that social innovation should not be judged on the basis of economic criteria and its benefit could be intangible. The ultimate end of social innovation is to help create better futures (Pol and Ville, 2009). Therefore, IRS is basically a social innovation,

which is expected to resolve the social challenges for the benefit of social media users. It is actually not driven by the profit motive. However, some business models could be bundled up to make IRS more valuable in the economic perspective.

5.3.3 Service Provider of IRS

Not only can the combination of technologies and knowledge in current application domain create new knowledge domain, but also it can open entirely new markets and might destroy current business models and markets (Srinivasan, 2008). IRS offers an application of service business model, which provide comprehensive information about censorship for users and firms using social media for their businesses. There is no such service provider on censorship information in social media, which is globally a growing market opportunity. IRS is thus a sole easy-to-use tool to access such information as classification of censored content, censorship index and transparency of website in social media. A Webpage of IRS might be constructed to provide the basis of censorship information and additional services could be added up for premium customers. The service of IRS could facilitate customers to decide which social media are worth to use and manage their online activities i.e. information sharing and collaboration, social media marketing and online publication. To decide the right source of information dissemination would provide the opportunities for individuals and businesses to achieve their goal in a competitive market. However, the IRS could be connected to the search engine website e.g. google, bing, yahoo, for ease of access and use.

CHAPTER VI

PRODUCT TESTING

6.1 A Case Study of Pantip.com

Pantip.com is an online social media as it is a public space for any user to share information and content. Despite serving as a form of entertainment space, Pantip.com has also played a vital role in political and social activism due to its popularity, which had attained a traffic rank of 9th in Thailand (Alexa, 2011), and was one of the first websites established in Thailand when the Internet was being introduced in the country in the 1990s. Due to diversity of forums and dynamic participation from users, Pantip.com has faced many issues of illegal content on the website. It has then resorted several tools to limit the adverse effect from illegal content posted by users. One of the most well-known filtering schemes is the “one ID one account” policy, which is the process requiring 13-digit national ID number or passport ID number for subscription. Users have to comply with the policy and try not to break the rules of the forum; otherwise they would be banned and could not re-subscribe again. Demographics of users, traffic, policy and current issues of Pantip.com can be summarized as follows:

- a) Total number of users is more than 600,000 unique IPs per day.
- b) Most registered users are aged between 25-34 years old. Next groups are 35-44, 65+, 45-54, 55-64 and 18-24 years old respectively.
- c) There are more female users than male users in the website.
- d) The majority of users hold a higher degree than bachelor's degree.
- e) Users access the website from their home rather than work and school.

Pantip.com has several features and its subsidiaries e.g. Tech-Exchange, PantipMarket, Chat, Pantown and BlogGang. But the most popular feature of the site is PantipCafe, which consists of 25 separate discussion forums dedicated to particular topic as shown in Table 6.1.

Table 6.1 Discussion forums in PantipCafe

Discussion forum	Description
Siam Square	Teenager
Chalermthai	Entertainment
Chalermkrung	Music and art
Jathujak	Pet, gardening, hobby
Gonkrua	Food and drink
Chaikha	Property, furniture and electrical appliance
Rachada	Car
Maboonkrong	Communication
Supachalasai	Sport
BluePlanet	Travel
Klong	Photography and camera
Suanlumpini	Health
Ruammit	All topics
Toh Krueng Pang	Fashion and cosmetic
Chanruen	Family
Klaiban	Foreign issue
Hongsamut	Book and literature
Sassana	Religion
Whakor	Science and technology
Silom	Business and management
Sinthorn	Finance and investment
Ratchadamnoen	Politics
Sala Prachakom	Social, economic and law issue
Rai Sungkat	Not subject to any tables
Toh Khao	News and current issues

6.2 Method

A multi-step, multi-method design was used to investigate the removed content on Pantip.com and to analyze types or context, frequency, and influence of censorship. Table 6.2 summarizes the basic research procedure, along with the methods and research questions associated with each step in the study.

A semi-structured, in-depth interview was conducted with Wanchat Padungrat – managing director – in July 20, 2011 and Worapoj Hirunpraditkul – Webmaster in August 30, 2012. In order to best achieve the aim of answering the research questions relating to intermediary censorship, it was important to use the research framework described above as a guide to data collection. Thus, interview questions were broadly related to the framework. Questions were open-ended giving interviewee the opportunity to develop his answers and to provide narratives as broad as he deemed appropriate.

Table 6.2 A multi-step, multi-method process to investigate censorship in Pantip.com

Step	Research Questions	Methods
1	- What are the criteria of censorship in online social media?	In-depth interview
2	- What types of content are filtered by intermediaries? - Does overblocking happen in online social media in Thailand?	IRS and Content analysis

IRS was used to collect content removed from forums in PantipCafe, which is the most popular feature in Pantip.com. The collection time frame was four days from May 25-28, 2012. Frequency of data collection was every five minutes. Targets of data collection were sampled from four discussion forums in PantipCafe: Chalermthai, Ratchadamnoen, Siamsquare and Toh Khao. These forums were selected based on diversity of content. Chalermthai contains entertainment content. Ratchadamnoen contains political content. Siamsquare contains teenager content. Toh Khao contains news or current issues content.

6.3 Findings and analysis

Step 1

The in-depth interview questions were conducted regarding to the research framework. The data collected were then analyzed descriptively as follows:

a) Influence from governmental sector

In the recent political crisis, Pantip.com has received a few notifications from the ministry of information and communication technology (MICT) and ad-hoc security body like the Center for Resolution in Emergency Situation (CRES) to remove ‘problematic’ content in the forum. Wanchat admitted that the websites has to comply with the requests regardless of the legal and moral justifications.

“There are two times that we received a call from the authorities to take some action on the PantipCafe. The first time was from the MICT and the second was from the military junta.”

“Even we have a strict rule about political expression; there will still be a lot of satire, especially in Ratchadamnoen forum. However, we won’t censor as long as it is not obviously an infringing content except lèse majesté that we would not let it go.”

b) Influence from private or business sector

Wanchat stated that most of the notifications, follows with legal actions, were not originated from governmental sector, but rather from private sector. And some are not reasonable.

“Most of notices are from businesses rather the government. We would consider whether the notices are reasonable. If not, we would keep the content and that could probably cause the lawsuit. We got many lawsuits in a year, mostly about defamation case.”

Worapoj also stated that since Pantip.com contains a large amount of commercial content, which oftentimes include infringement or defamation issue, the content would then be deleted immediately to prevent offense under computer law. Worapoj indicated that although

defamation issue is not directly addressed in the Computer-Related Offence Act B.E. 2550 (2007) but it could be claimed under Section 326 in the Criminal Code, which states that any person commit an offence in a manner that is likely to impair the third party's reputation or cause that third party to be isolated, disgusted or embarrassed, shall be subject to imprisonment for not longer than one year or a fine of not more than 20,000 baht, or both. This, according to Worapoj, would lead to chilling effect of intermediary like Pantip.com, follows with overblocking in the website even if the take-down notifications were not reasonable.

c) Influence from civil society

Not only does Pantip.com comply with the law, the website also bases its content filtering criteria on issues which are public concern as advocated by civic society particularly children protection groups and other underlying moral standards.

“Gambling-related content and other moral concerns are not founded in Pantip.com since we have made clear our policy and have strong filtering schemes against those kinds of content. However, commercial use still exists. We usually found that some users post content for their own benefit. Most of them are marketing officer or business owner.”

Worapoj indicated that users and civic group should become more involved in regulating the forum to inhibit cyber bullying and other immoral issues. Direct influence or intervention from civil society in Pantip.com is actually hardly found but instead social sanction from user is prevalent.

d) Influence from user

Pantip.com has built self-regulation scheme in the forum using flagging system. Users can flag the problematic or illegal content to notify the moderator. If the flagging takes place more than three times, the flagged content will be removed. Not only illegal content e.g. pornography or gambling is prohibited, but also absurd or nonsensical content is considered problematic, which tends to be removed from the website. This is because the great expectation of Pantip.com is to create culture of knowledge and credibility in the website, as Worapoj

mentioned. On the other hand, users can notify the good content or comment, same as “like” in Facebook, so the content owner would get self-esteem and award from the websites.

“We are usually notified by users who have learnt what is illegal and not acceptable in community. There is social norm in PantipCafe that is strong enough to regulate users’ practices and we believe it is a good sign for what is called self-regulation.”

Wanchat and Worapoj believe that self-regulation is the way to balance filtering scheme and user’s freedom of expression. However, there must be monitoring system by moderator as well. So co-regulation of the website by OSP is the best choice to achieve the Internet governance.

“Usually we give users freedom to express their political view. However, in some situation we considered it would cause chaos or heavy conflict in the forum when the debate was too intense or related to security concerns. So, we censored or even shut down some forums, if necessary. We believe in freedom of expression but there should be a limit. I would call regulation rather than filtering. There were many cases that we had to sacrifice some users to keep order of the community and keep our business going.”

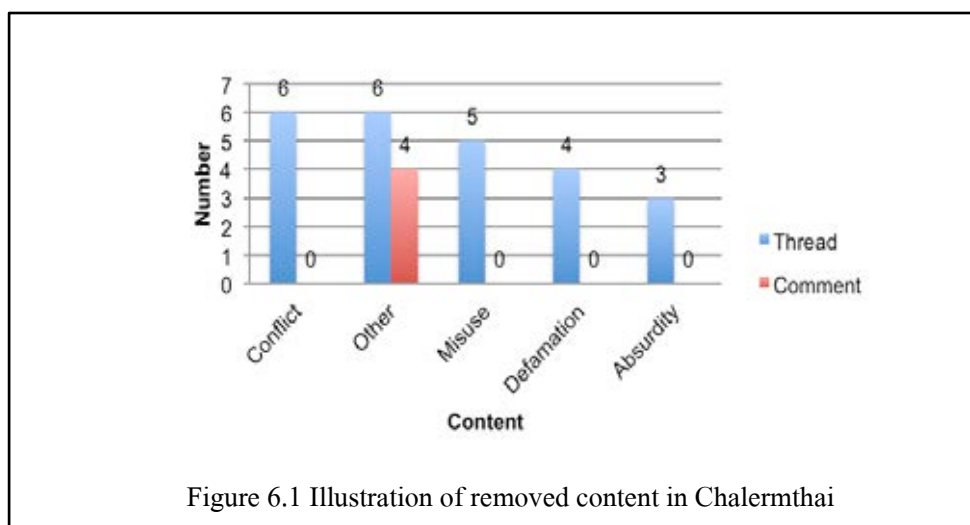
Step 2

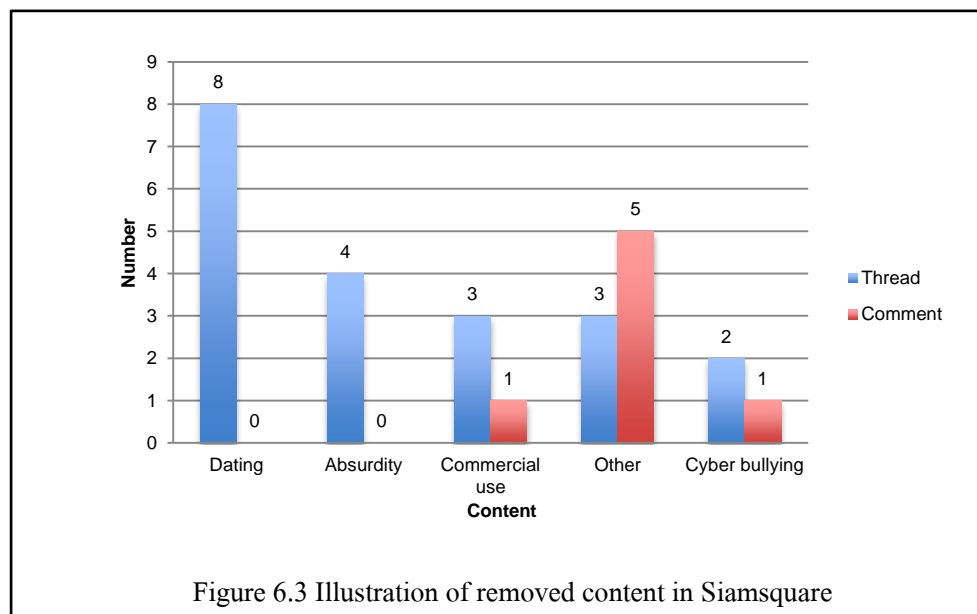
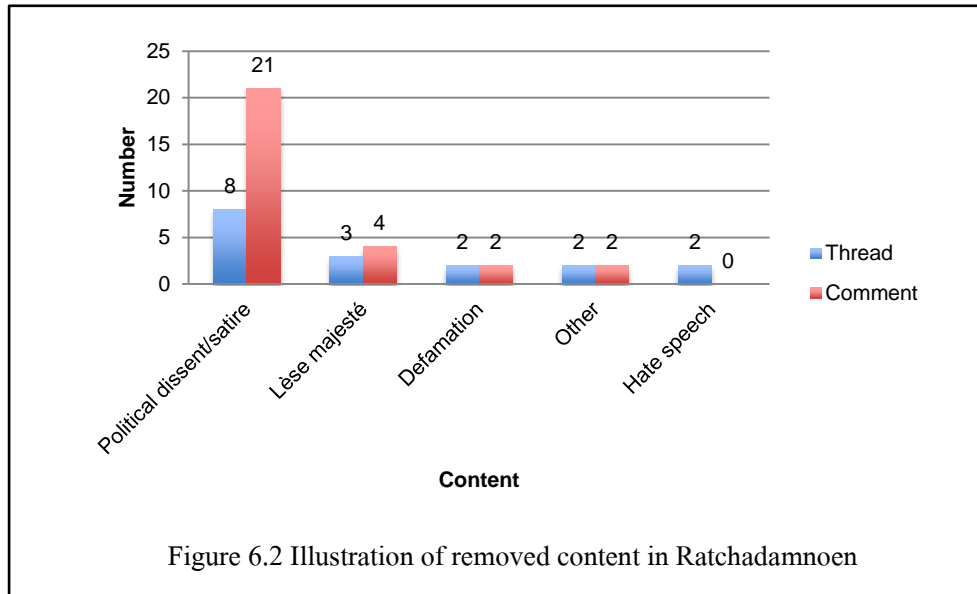
IRS was used to collect the content removed from four forums in PantipCafe. After four days of data collection, it is found that removed content in the four discussion forums comprises both comments and threads as shown in Table 6.3. Each thread and comment is then coded to classify types of content subject to intermediary censorship as shown in Table 2.6.

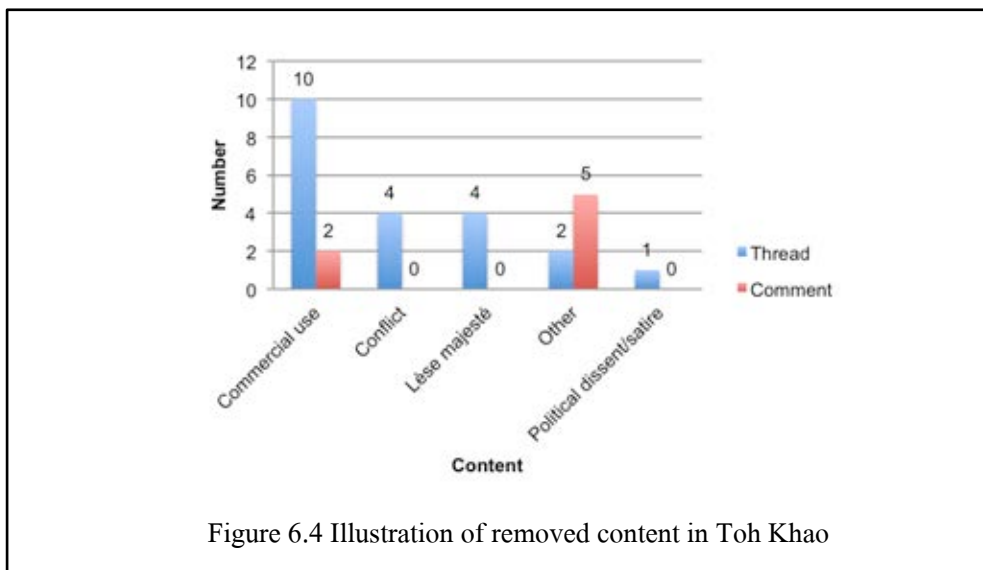
Table 6.3 Removed content in PantipCafe

Forum	Threads (message)	Comments (message)
Chalermthai	31	9
Ratchadamnoen	18	31
Siamsquare	28	13
Toh Khao	24	10

Based on the findings, it is obvious that the trend of censorship in Pantip.com is to remove threads rather than comments. Ratchadamnoen is the only forum that the comments were removed rather than threads. Then all threads and comments were classified by human using method of coding, which is based on context of censorship in review of related research and the Computer-Related Offence Act B.E. 2550 (2007). The results of coded data are shown in Figure 6.1 – 6.4.







a) Chalermthai forum

According to Figure 6.1, the top five removed or censored content in Chalermthai forum was conflict, misuse, defamation, absurdity, and miscellaneous content. Chalermthai forum is provided for exchanging the opinions about entertainment in all media. Most opinions usually came from fans of performing artists, television programs, radio programs, or cinemas, which differ in accordance with individual tastes. Consequently, opposing opinions would likely end with debate and conflict, and oftentimes involve alluding each other. Thus conflict and defamation content were largely removed from Chalermthai forum. Whereas the advertising and commercial content were also greatly removed as they were considered content misuse, which is prohibited in certain forums in PantipCafe including Chalermthai. In some cases, advertising content concerning artists or TV programs led to conflict of their fans as well. Moreover, it is noticeable that the removed content was mostly threads (blue bar), which implies that problematic or illegal comments were so abundant and interconnected. Thus it is obvious that the pattern of censorship in Chalermthai forum focuses on the conflict of fans.

b) Ratchadamnoen forum

Ratchadamnoen forum is a space basically provided for political content. This forum oftentimes has debate and conflict among users with different political view. It was occasionally shut down or changed to 'only thread without comment' system depending on the political contest in which Thailand is. Particularly, after military coup in 2006 lèse majesté content in

several websites had been suppressed by MICT. Pantip.com had consequently proceeded more rigorous policy on such content resulted in a dramatic drop in the posting of the defamation and lèse majesté content in Ratchadamnoen forum. According to Figure 6.2, only a few threads and comments about defamation and lèse majesté were removed from the forum, which indicated that there were not many of these sorts of content floating around in the forum. On the other hand, political dissent and satire content were removed significantly showing that these types of content still prevalently remain in the forum. It is noticeable that although political dissent and satire are not illegal but website administrator still did not allow this sort of content to be disseminated in the forum. This apparently shows that Pantip.com has been affected from the chilling effect under the influence of the governmental sector. Furthermore, the removed content was mostly comments instead of threads, which implied that only some comments, not the whole threads, tended to provoke the debate or conflict in the forum. They were more like cyber bullying camouflaged as political opinion. Thus the website administrator tried to keep the conversation in the threads and chose to remove only such problematic comments. Obviously, the pattern of censorship in Ratchadamnoen forum is under chilling effect, focusing on political dissent, satire and cyber bullying.

c) Siamsquare forum

Siamsquare forum (Figure 6.3) is basically for adolescent content but it appears that the removed content was mainly about dating and flirting. The researcher thus conducted another in-depth interview with Worapoj to gain additional information about this issue. Worapoj claimed that there were some users in this forum who caused disturbance to other users by continuously changing their login name and posting the same pattern of content of dating and flirting. He stated that the reason of doing that was not found and considered absurdity. Thus the website administrator had kept an eye on these users by monitoring their IP address and would immediately remove their content even it was not illegal. Obviously, the pattern of censorship in Siamsquare forum is targeted censorship focusing on individual users.

d) Toh Khao forum

Toh Khao forum (Figure 6.4) is fundamentally provided as an alternative news channel for users who want to seek an additional point of view rather than a conventional media channel.

However, the content in this forum mostly contained commercial content such as announcements, advertisements, and public relations. Therefore, this sort of content was removed significantly in the forum due to a violation of the website's policy. In addition, the second-ranking removed content was conflict and *lèse majesté* content similar to those removed in Ratchadamnoen forum. This might imply that some users avoided posting in Ratchadamnoen forum, which is monitored stringently, and chose to post in Toh Khao forum, which contains several sorts of news-related issues, instead. Thus the pattern of censorship in Toh Khao forum mainly focuses on commercial and illegal content, which was moved from other forums to avoid censorship.

According to categories of content subject to censorship in Table 2.6, the removed threads and comments in each forum can be categorized into three groups of content: political, social, and national security as shown in Figure 6.5.

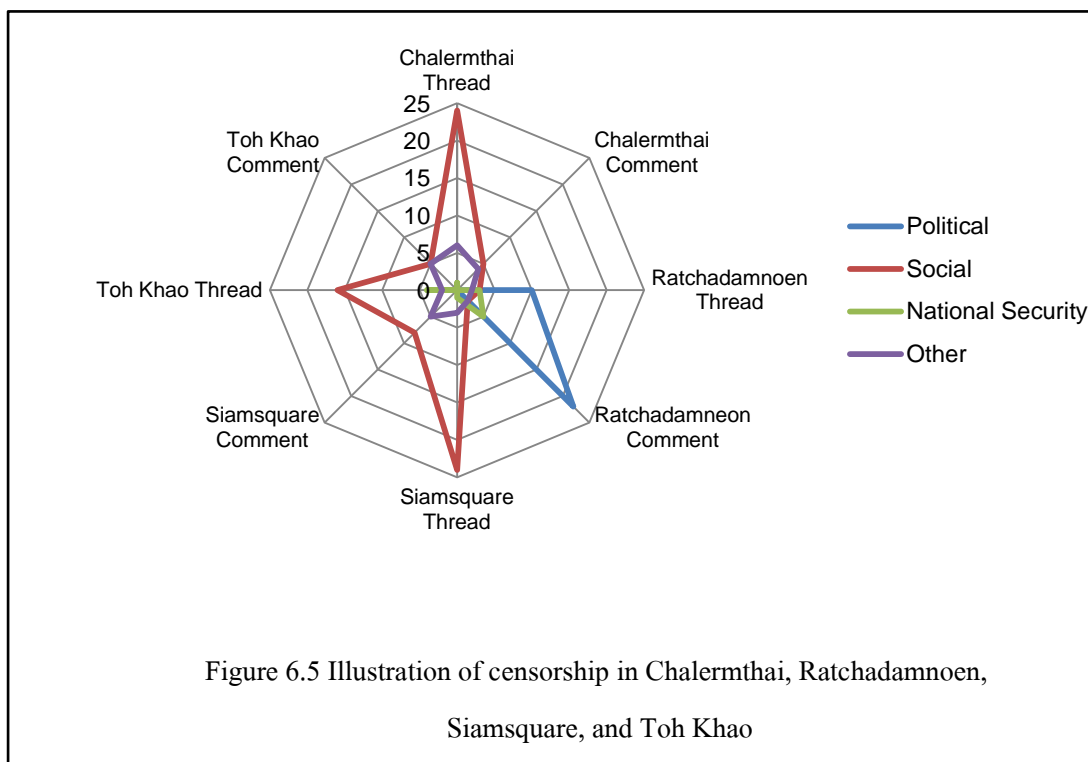


Figure 6.5 shows that removed content in all forums was social-related issue (red line); excluding Ratchadamnoen forum that mainly removed political content (blue line). The result is in accordance with the basic characteristics of each forum as Chalermthai, Siamsquare, and Toh Khao forum are provided for social issue e.g. adolescence, entertainment, and news while Ratchadamnoen forum is provided for political issue. Moreover, it is obvious that threads in social forums like Chalermthai, Siamsquare, and Toh Khao were more removed than comments whereas comments in Ratchadamneon forum were more removed than threads. These findings may be analyzed as follows:

1) Users tended to avoid stringent policy in Ratchadamneon forum and moved to post problematic or illegal threads in other forums instead. Thus the number of removed threads in this forum was low comparing with those in other forums.

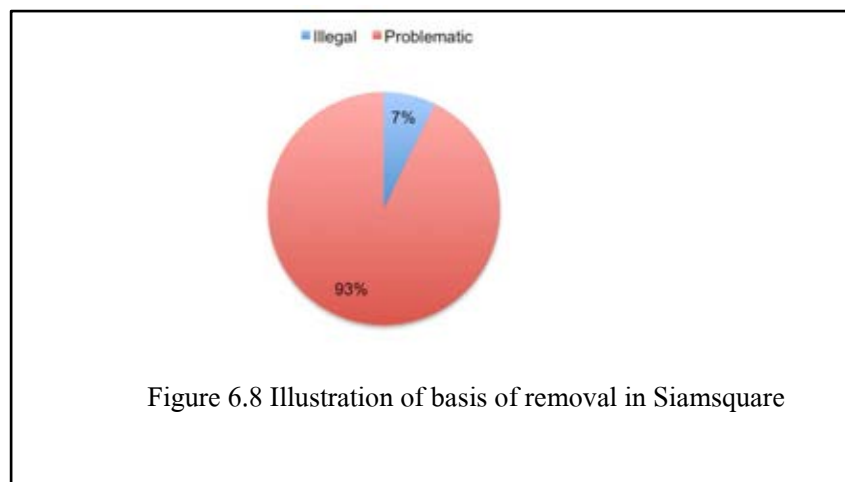
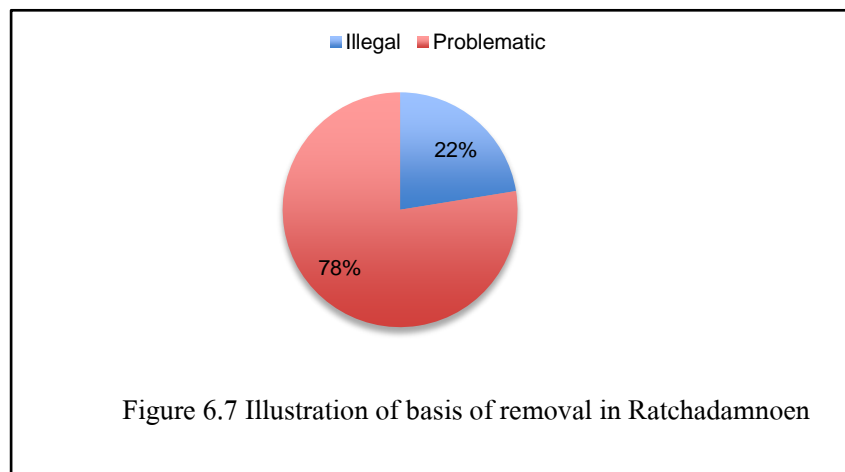
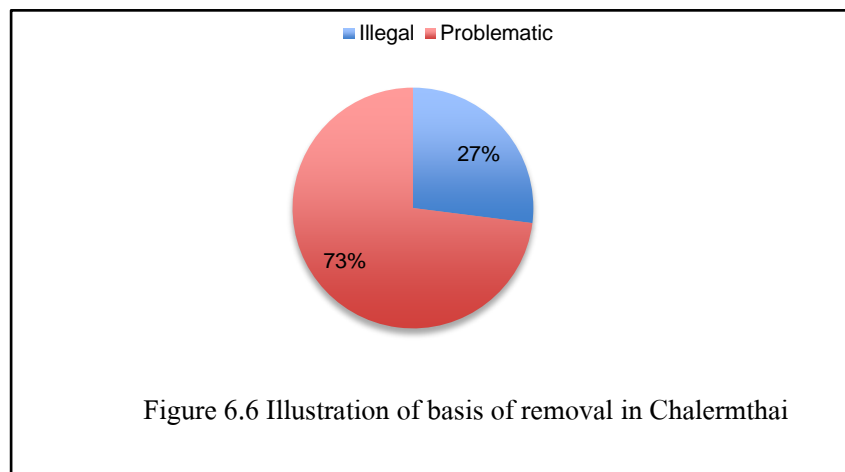
2) As described earlier, some users in Ratchadamneon forum are cyber bullies and tried to provoke the debate and conflict in the form of political opinion. They avoided being censored by posting comments rather than threads because comments are usually hidden in different page view from threads. These problematic comments are also commonly posted in a popular thread, as they are hard to be found especially in the webpage structure of Pantip.com where new comment will be posted at the bottom of the page, not the top. It thus turned out that the illegal content or conflict often happened at the very bottom of the page in a thread. The more comments a thread had, the possibility of the conflict happened. Therefore, as shown in Figure 6.5, there are a large number of comments in Ratchadamnoen forum considered problematic under judgment of website administrator, which tended to remove such comments solely, not the whole thread.

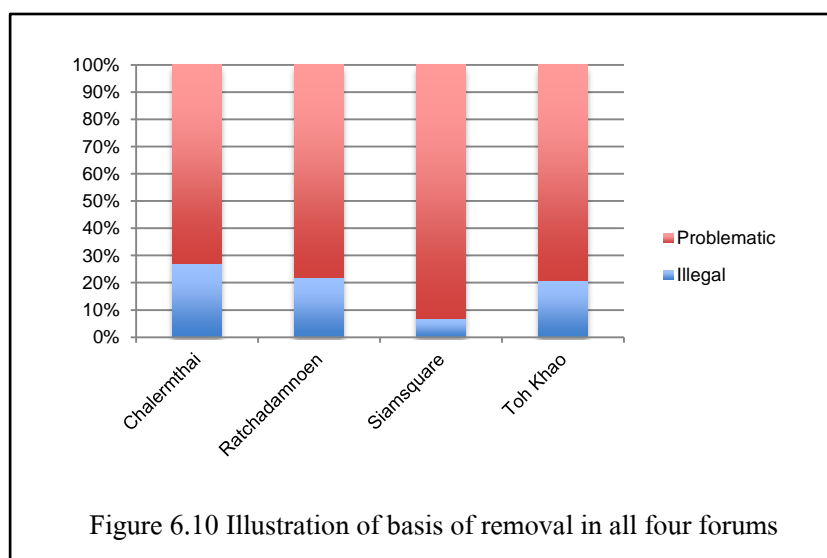
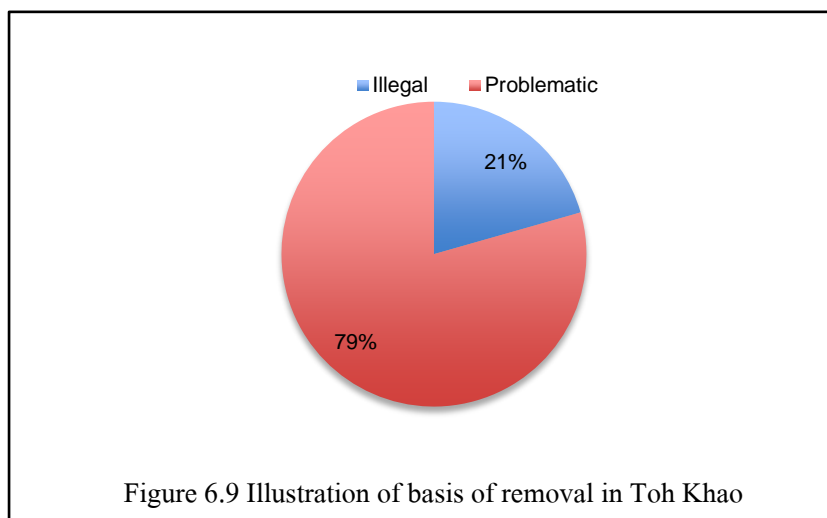
3) Chalermthai, Siamsquare, and Toh Khao forum were monitored in less stringent manner than Ratchadamneon forum. Illegal or problematic content thus tended to be posted in both threads and comments. Most threads, therefore, were removed as website administrator who chose to end the illegal or problematic content at the beginning without opportunities for users to share any conversation in comments at all.

The situation of thread removal also represents the infringement of freedom of expression since those removed thread usually contains not illegal comments, which were

impacted by censorship inevitably. Some removed threads contained more than 40 comments with only few illegal or problematic comments.

Lastly, according to research framework, all removed content can be classified into two groups in accordance with the basis of removal: illegal and problematic content as shown in Figures 6.6-6.10.





It is obvious that the majority of removed content in all four forums was problematic content (red color), which was not illegal but potentially harmful under the judgment of website administrator. The remainder was illegal content (blue color), which was only a quarter or less from overall removed content. For instance, 73% of problematic content was removed under judgment of website administrator whereas 27% of illegal content was removed in Chalermthai forum. Similarly, 78% and 79% of problematic content was removed respectively under judgment of website administrator whereas 22% and 21% of illegal content was removed in Ratchadamneon and Toh Khao forum respectively. Particularly in Siamsquare forum, the problematic content was removed up to 93% while the illegal content was removed only 7%.

It is the problematic content that indicates the overblocking or excessive removal of content in a website. In the case of Pantip.com, removal of problematic content in each forum could indicate the overblocking level as overblocking score. The higher the overblocking score is, the more problematic the judgment of website administrator is. Thus overblocking score of four forums would be summarized in Table 6.4.

Table 6.4 Overblocking score of four forums in Pantip.com

Forum	Illegal content removal (%)	Overblocking score (%)
Chalermthai	27	73
Ratchadamneon	22	78
Siamsquare	7	93
Toh Khao	21	79

It appeared that Chalermthai forum had the lowest overblocking score (73) indicating that censorship practice in this forum was the best among other four forums. Whereas Siamsquare forum had the highest overblocking score (93) indicating that censorship practice in this forum was the worst among other four forums.

CHAPTER VII

COMMERCIALIZATION

7.1 Commercialization of IRS

Not only can the combination of technologies and knowledge in current application domain create new knowledge domain, but also it can open entirely new markets and might destroy current business models and markets (Srinivasan, 2008). IRS offers an application of service business model, which provide comprehensive information about censorship for users and firms using social media for their businesses. There is no such service provider on assessment of censorship in social media, which has become a staple in the global information society. IRS is thus a sole easy-to-use tool to access such information as classification of censored content, censorship index and transparency of website in social media. A Webpage of IRS might be constructed to provide the basis of censorship information and additional services could be added up for premium customers. The service of IRS could facilitate customers to decide which social media are worth using and manage their online activities i.e. information sharing and collaboration, social media marketing and online publication. Deciding to choose the right source of information dissemination would provide the opportunities for individuals and businesses to achieve their goal in a competitive market. However, the IRS could be connected to the search engine website e.g. google, bing, yahoo, for ease of access and use.

There are also 3 options of commercialization of IRS

7.1.1 Licensing

This option is potential for IRS because the application is still in prototype stage. It also needs continual development. The buyer has to accept some degree of development work as well. Since the technology of IRS is still in the early stage. The risk of failure is quite high. Additionally, complicated contract, development and monitoring could create high cost of investment. The target group of licensee would be civil society group or non-profit organization such as Freedom House or iLaw. The type of licensing IRS is exclusive license since it is much easier to sell, negotiate, and monitor. Because exclusive licensee is like a sole agent, it thus has

nothing to do with the structure of contracts, plan, or any other legal documents. Exclusive licensee also has a unique right to the intellectual property of IRS; it should be expected to pay more than if the license is nonexclusive.

7.1.2 Selling

This option is good for seller but not for buyer since the technology of IRS is still in the early stage. It needs more development and the risk of failure is quite high. This option would cost minimum investment because seller would not be bother with complicated contract, development and monitoring. The result of this option would have low cost, low return, and low risk. However, it may not seem to be easy to sell innovation without technology development since buyer would need a well-developed prototype. Thus, it would be more complicated and need more investment to develop the IRS to the mature stage before making income. The target group of buyer would be educational institution or research institute. These targets would have potential to deal with development phase of IRS.

7.1.3 Joint venture

This option would be the best way to commercialize the IRS. Innovation would work better if there were collaboration between two different expertises. Since the IRS is developed by the development team, who is expertise in innovation, it would be completed by another expertise in marketing and selling. This way could have lower risk than other options and would have potential to create high return. However, it will have complicated contract and quite high investment.

Additionally, all three options can have several types to create income but the sponsorship is basically the best way. Since the IRS result will be displayed both in the search engine website and the IRS's website, the certain space provided to advertisement could be sponsored by businesses.

7.2 Technology Acceptance Model (TAM)

TAM was used to test technology acceptance of IRS. In-depth interview was conducted with 4 lead users and experts to collect the factors of acceptance, which comprise ease and benefit of use.

7.2.1 Freedom House

Freedom House is an independent watchdog organization dedicated to the expansion of freedom around the world. According to its work, Freedom House acts as a catalyst for freedom through a combination of analysis, advocacy, and action. Its research and analysis frames the policy debate in the United States and abroad on the progress and decline of freedom. Freedom House also empowers frontline human rights defenders and civic activists to uphold fundamental rights and to advance democratic change. With Freedom House's support, these activists expand the boundaries of freedom in repressive societies and hold their governments to account.

Since 2009, more than thousands of WebPages have been blocked and several Internet users sentenced to long prison terms for disseminating problematic content online or via mobile phone text messages. Those expecting that a new opposition-led government elected in July 2011 would loosen Internet restrictions were disappointed. Instead, censorship has continued apace under the administration of Prime Minister Yingluck Shinawatra and actually become even more institutionalized (Freedom House, 2012). As the Freedom on the Net report in 2012, Internet freedom status in Thailand is still not free as it was in 2011. There is also notable political censorship and violation of user rights.

However, the Freedom on the Net report was partly conducted by questionnaire and interview. A staff at Freedom House agreed that human error could happen. Also, its censorship report only showed the whole WebPages that were blocked, not the content in the webpage. Therefore, the concept of IRS, which collects the removed content and investigates related factors, would give more detail on online censorship. In addition, she is interested in the output of the censorship report of IRS, which shows as infographics. Most people would easily understand the information and use as baseline data for any report.

7.2.2 iLaw

iLaw officer agreed that it is hard to regulate or control the content on the Internet due to the great deal of content. Therefore, censorship should be practiced differently in each level of use. For example, censorship in home, school, and workplace should be administered differently, whereas use in national level should not be censored at all. iLaw officer insisted that it is users' freedom and judgment to access data on the Internet, as it is the world trend. If Thai policy or law is opposed to this trend, it is hard for society to comply with as well. Moreover, ISPs and OSPs should administered self-regulation and promote users to criticize or review openly instead of censorship. This way would create knowledge-based society. Also, mitigation of the impact of censorship is to disclose the censorship practice in social media. Disclosure of what and how content is removed would lead to transparency of service providers. It is also safe for users as they could decide on what content should be disseminated to avoid censorship or lawsuit.

7.2.3 Google (Thailand)

Google (Thailand) staff agreed that computer crime law should be improved for clear procedure to manage illegal and problematic content. Law enforcement must also be practiced straightforwardly and more systematic to eliminate confusing management of service providers, which leads to self-censorship as to avoid violating the law. Moreover, heavy penalty of computer crime law exposes higher risk to business growth of OSPs and deter foreign investment in this industry. Google (Thailand) staff also stated that disclosure of censorship in social media would benefit both users and OSPs. Users could use website safely under informed judgment whereas OSPs would create accountability and transparency through reported self-monitoring.

7.2.4 The National Human Rights Commission of Thailand (NHRC)

NHRC officer stated that today illegal and problematic content disseminated on the Internet is managed under unclear procedure. There is no guideline indicating which content is either problematic or illegal. This situation makes ISPs and OSPs use their own judgment to control such content. NHRC officer agreed that guideline, standard, or agreement of censorship procedure is critical to mitigate the impact to online intermediaries and users. Also, content self-

regulation among online intermediaries and users should be promoted to achieve comprehensive content monitoring. Moreover, disclosure of online censorship practice would be another mean of mitigation to users, as it would increase accountability and transparency of social media to users, which would contribute to users' informed judgment in use selection of social media websites.

7.3 Opportunities and Challenges of IRS

The opportunity of IRS is to mitigate impacts occurred in social media industry by investigating the types of content that are filtered and criteria used. Also, the extent to which content and classification are blocked will be identified. By so doing, a more transparent filtering system can be rendered, hence empowering users to ensure intermediaries' accountability to them.

However, the big challenge of IRS is law, both computer crime law and defamation law, which are criminal offences. Imprisonment with heavy penalty is more threatening to freedom of expression than monetary damages. This causes chilling effect, which is the main threat used to silence any person making comment in good faith on matters of public interest. As long as the rules are not revised, IRS could not benefit much to people and businesses even though it would help justify the censorship in social media.

CHAPTER VIII

DISCUSSION, CONCLUSION, LIMITATION AND RECOMMENDATION

8.1 Discussion

As mentioned earlier, Internet filtering schemes are usually generated through a combination of manual and automatic search for targeted content. The error, thus, could happen from both human error and technological limit. In the same way, this research has shown the error of filtering scheme in Pantip.com with the high level of overblocking. As designed to collect output data on the webpage, IRS gathers only what is removed by the secondary manual filtration, not the primary automatic filtration in back office of the website. The secondary manual filtration is proceeded under the judgment of website administrator, which is basically subjective and potentially inaccurate according to Weckert (2000) and CDT (2012) stating that nowadays there is no effective technology or enough resources, both human and financial, to provide a certain Internet content filtering.

High level of overblocking in Pantip.com also implies that OSP tried to protect its interests rather than users' interests, which is similar to the statement of Wanchat and Worapoj indicating that it is acceptable to sacrifice some users to protect the social order in the website and to keep the business run. Similarly, Zuckerman (2009) stated that OSPs might cut off some users to avoid legal review and avoid adding up some expense in filtration if it affects to the profit margins of the business. In addition, Pantip.com has tried to build self-regulation scheme and involved multiple stakeholders in order to create co-regulation according to Akdeniz (2004), Kleinstauber (2004), and Marsden (2004) stating that co-regulation with all relevant stakeholders, for instance governmental sector, private or business sector, civil society, and users, is more effective and flexible than censorship by conventional law or government regulation. However, the level of overblocking of Pantip.com is still high. This might be because the chilling effect factor, which could be attributed to three main sources as follow:

a) Fear from government interference. According to Kleinstauber (2004), co-regulation is the best way for Internet governance where the government is not involved. In case of Pantip.com, Wanchat and Worapoj accepted that there were intimidation from the governmental

sector and the military junta (during the coup period in 2006).

b) Fear from threats of lawsuits. Wanchat stated that Pantip.com has received several notices or lawsuits concerning the problematic content. He accepted that it is necessary to remove such problematic content if the litigation expenses exceed the legal budget of the website.

c) Fear from intermediary liability provision in computer crime law. The provisions in Section 14 and 15 of Computer-Related Offence Act B.E. 2550 (2007) allow the prosecution of any service provider who intentionally support or consent to the dissemination of computer data that cause damage or harmful to national security, third party or the public. It is not clear what type of content is deemed harmful as ARTICLE 19 (2011) indicating that filtering or censorship is inconsistent due to different interpretations of the provisions of the computer crime law, which are generally vague. Also, OSP like Pantip.com is suppressed by fear of heavy penalty (imprisonment for not more than five years or a fine of not more than one hundred thousand baht or both under the provision in Section 15 for intermediary liability) as CDT (2012) also indicated that chilling effect could happen in the level of intermediary due to fear of potential liability.

8.2 Conclusion

This research shows that overblocking is still prevalent in Pantip.com even though self-regulation is administered. It might be because the chilling effect factor attributing to several sources intervene censorship practices of the website as mentioned above. However, external influences are not only the problems in intermediary censorship; it is also the criteria of censorship that could not be overlooked. With different judgment of website administrator, the criteria of censorship would be inconsistent. In case of Pantip.com, it is apparently that pattern of censorship is quite different in each forum depending on several factors such as types of content and users characteristics. Even in the same website, the criteria of censorship are inconsistency in each forum. Consequently, users cannot acknowledge whether their content disseminating to the public will be censored or not or under which criteria.

Therefore, the IRS aims to identify pattern of censorship and to increase accountability and transparency of OSPs to users, which would likely contribute to not only users' informed judgment in use selection of social media websites but also to users' freedom of expression. In addition, accountability and transparency of OSPs could be a form of corporate social responsibility (CSR), as it embraces responsibility on all stakeholders such as employees, consumers, communities, and environment. This mechanism would create a good image and encourage a positive impact for the business. However, government interference and intermediary liability provision in computer crime law and the subsequent chilling effect to OSPs are likely to be main obstacles threatening not only ingenious communication of the public, but also Internet business, innovation, and economic growth. The investment and growth in the Internet industry in Thailand would be deterred as long as these obstacles remain.

8.3 Limitation

This research has three main limitations.

a) Limitation on IRS system. The system has to run all the time to collect data in hard disk drive (HDD), which could be damaged easily. This could be solved by using several HDDs to be back up but it creates high investment as well.

b) Limitation on IRS investigation. The IRS is an application collecting removed content on the WebPages to study online censorship. Such removed content including illegal and problematic content will be categorized for analysis on overblocking of the websites. However, there still be some illegal content that is not removed from the websites, which is called underblocking. This underblocking rate will be another indicator showing how websites manage the content among the provision of the computer crime law.

c) Limitation on the social media platform. The IRS is not a universal compatible platform. Since each social media on the Internet has been built in different architecture and platform, IRS has to be tailor-made for every website. This first version of IRS is designed only for Pantip.com, which is a webboard platform and may not reflect the full Web 2.0 capacity.

d) Limitation on the scope of the study. As mention earlier, government interference and intermediary liability provision in computer crime law causing chilling effect to OSPs are likely to be main obstacles for communication of the public. This study only indicates the

problem but does not go through the solution.

8.4 Recommendation

- a) Policy – Government should promote IRS for social media.
- b) Business – OSPs should be more accountable and transparent as CSR policy. They could build positive image and communicate with users by the censorship report of IRS.

8.5 Future research

a) This study only focuses on censorship in social media. Thus overblocking has been researched for constructing censorship index, showing how websites manage the content. However, underblocking should be studied to fulfill the other side of censorship because the website that does not block at all, absolute freedom, is not good as well. The future study should focus on illegal and problematic content that is not blocked in social media.

b) Since each social media has different platform, for instance web board and social networking, technology on IRS architecture could be further researched for universal compatibility with every website.

c) The research has found the causes and problems of censorship but has not go through the solution due to the limitation on scope of study. The future study should focus on how intermediary liability provision in computer crime law could be amended to protect OSPs from chilling effect. Also, prevention of government interference should be studied to find a solution for Internet business in Thailand.

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APPENDICES

APPENDIX A

แบบสอบถาม

ความคิดเห็นต่อการเซ็นเซอร์เนื้อหาในสื่อสังคมออนไลน์ประเภทเว็บไซต์

แบบสอบถามนี้เป็นส่วนหนึ่งของงานวิจัยในระดับปริญญาเอก หลักสูตรธุรกิจเทคโนโลยีและการจัดการนวัตกรรม บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย จัดทำโดยนายบารมี นวนพรัตน์สกุล และมี ผศ.ดร. พิรงรอง รามสูต และ ผศ.ดร. สุกรี สินธุภิญโญ เป็นอาจารย์ที่ปรึกษา มีวัตถุประสงค์เพื่อสำรวจการเซ็นเซอร์เนื้อหาในสื่อสังคมออนไลน์โดยเฉพาะเว็บไซต์ เช่น **pantip.com** และวิเคราะห์ถึงผลกระทบของการเซ็นเซอร์ที่มีต่อผู้ใช้อินเทอร์เน็ต ซึ่งจะเป็นประโยชน์ในการสร้างความโปร่งใสและตรวจสอบได้ของการเซ็นเซอร์เนื้อหาในสื่อสังคมออนไลน์ในปัจจุบัน และเป็นประโยชน์ต่อผู้ใช้อินเทอร์เน็ตในการพิจารณาเลือกใช้สื่อสังคมออนไลน์ต่อไป ทั้งนี้ ข้อมูลที่ได้รับจากท่านจะถูกเก็บเป็นความลับ โดยจะนำเสนอผลงานวิจัยเพื่อการศึกษาค้นคว้าเท่านั้น

สำหรับแบบสอบถามชุดนี้ แบ่งออกเป็น 4 ส่วน ดังนี้

ส่วนที่ 1 คำถามเกี่ยวกับข้อมูลบุคคล

ส่วนที่ 2 คำถามเกี่ยวกับการใช้สื่อสังคมออนไลน์

ส่วนที่ 3 คำถามเกี่ยวกับการเซ็นเซอร์เนื้อหาในสื่อสังคมออนไลน์

ส่วนที่ 4 คำถามเกี่ยวกับระบบตรวจสอบการเซ็นเซอร์เนื้อหาในสื่อสังคมออนไลน์

ส่วนที่ 1: ข้อมูลบุคคล

คำชี้แจง กรุณาเลือกคำตอบ โดยทำเครื่องหมาย ✓ ลงใน

1. อายุ

ต่ำกว่า 15 ปี 15 – 19 ปี

20 – 29 ปี 30 – 39 ปี

40 – 49 ปี 50 – 59 ปี

60 ปีขึ้นไป

2. เพศ

หญิง ชาย

3. ระดับการศึกษาสูงสุด

ประถมศึกษา มัธยมศึกษา

ปริญญาตรี ปริญญาโท

ปริญญาเอก อื่นๆ (โปรดระบุ)

4. อาชีพ

ข้าราชการ พนักงานบริษัท

พนักงานรัฐวิสาหกิจ ธุรกิจส่วนตัว

นักเรียน / นักศึกษา อื่นๆ (โปรดระบุ)

5. รายได้

ต่ำกว่า 10,000 บาท 10,000 – 20,000 บาท

20,001 – 30,000 บาท 30,001 – 40,000 บาท

40,001 – 50,000 บาท มากกว่า 50,000 บาท

ส่วนที่ 2: การใช้สื่อสังคมออนไลน์ประเภทเว็บบอร์ด

คำชี้แจง กรุณาเลือกคำตอบ โดยทำเครื่องหมาย ✓ ลงใน

1. ท่านใช้สื่อสังคมออนไลน์ประเภท “เว็บบอร์ด” บ่อยแค่ไหน

- | | | |
|---|--|--|
| <input type="checkbox"/> ไม่เคยใช้เลย | <input type="checkbox"/> เดือนละครั้ง | <input type="checkbox"/> เดือนละ 2-3 ครั้ง |
| <input type="checkbox"/> สัปดาห์ละครั้ง | <input type="checkbox"/> สัปดาห์ละ 2-3 ครั้ง | <input type="checkbox"/> ทุกวัน |

2. ท่านใช้ Pantip.com มานานแค่ไหน

- | | | |
|--|---------------------------------|---------------------------------------|
| <input type="checkbox"/> น้อยกว่า 1 ปี | <input type="checkbox"/> 1-2 ปี | <input type="checkbox"/> 3-4 ปี |
| <input type="checkbox"/> 5-6 ปี | <input type="checkbox"/> 7-8 ปี | <input type="checkbox"/> มากกว่า 8 ปี |

3. ท่านใช้ Pantip.com บ่อยแค่ไหน

- | | | |
|--|---|--|
| <input type="checkbox"/> ปีละครั้ง | <input type="checkbox"/> ปีละ 2-3 ครั้ง | <input type="checkbox"/> เดือนละครั้ง |
| <input type="checkbox"/> เดือนละ 2-3 ครั้ง | <input type="checkbox"/> สัปดาห์ละครั้ง | <input type="checkbox"/> สัปดาห์ละ 2-3 ครั้ง |
| <input type="checkbox"/> ทุกวัน | | |

4. ระยะเวลาการใช้ Pantip.com

- | | |
|---|--|
| <input type="checkbox"/> น้อยกว่า 1 ชั่วโมงต่อวัน | <input type="checkbox"/> 1-2 ชั่วโมงต่อวัน |
| <input type="checkbox"/> 2-4 ชั่วโมงต่อวัน | <input type="checkbox"/> มากกว่า 4 ชั่วโมงต่อวัน |

5. ในหมวดหมู่ Cafe ท่านใช้ห้องอะไรเป็นหลัก โปรดเลือกเพียง 3 อันดับ โดยเรียงลำดับ 3 อันดับแรกของห้องที่ท่านใช้มากที่สุด

โดย 1 หมายถึง ห้องที่ใช้มากที่สุดเป็นอันดับแรก

2 หมายถึง ห้องที่ใช้มากเป็นอันดับสอง

3 หมายถึง ห้องที่ใช้มากเป็นอันดับสาม

- | | | |
|-------------------------------------|--|-------------------------------------|
| <input type="checkbox"/> สยามสแควร์ | <input type="checkbox"/> โต๊ะเครื่องแป้ง | <input type="checkbox"/> สวนลุมพินี |
| <input type="checkbox"/> เฉลิมไทย | <input type="checkbox"/> ชานเรื่อน | <input type="checkbox"/> โต๊ะข่าว |
| <input type="checkbox"/> เฉลิมกรุง | <input type="checkbox"/> ไกลบ้าน | <input type="checkbox"/> รวมมิตร |

BluePlanet ศาลาประชาคม

กล้อง ไร่สังกัด

6. ท่านเป็นสมาชิกของ Pantip.com หรือไม่ ใช่ ไม่ใช่

6.1 หากท่านตอบว่า “ใช่” ท่านเป็นสมาชิกประเภทใด

สมาชิกแบบบัตรผ่าน (Passport) สมาชิกที่สมัครด้วยหมายเลขประจำตัวบัตร

ประชาชน

สมาชิกที่สมัครด้วย e-mail สมาชิกที่สมัครผ่านโทรศัพท์มือถือ (Mobile

Register)

7. ใน Pantip.com ท่านเคยแสดงความคิดเห็นหรือวิพากษ์วิจารณ์ในเรื่องใดบ้าง (ตอบได้มากกว่า 1 คำตอบ)

การเมือง สินค้าหรือบริการ

สังคม บุคคลที่ถูกพาดพิงถึงในกระทู้หรือคอมเมนต์

อื่นๆ (โปรดระบุ)

8. ท่านเคยถูกผู้อื่นวิพากษ์วิจารณ์ หรือพูดถึงในเชิงลบใน Pantip.com บ่อยแค่ไหน

ไม่เคยเลย นานๆ ครั้ง

ค่อนข้างบ่อย ตลอด

9. ท่านเคยได้เสียงหรือเป็นส่วนหนึ่งของวงสนทนาที่ขัดแย้งใน Pantip.com บ่อยแค่ไหน

ไม่เคยเลย 1-2 ครั้งหรือนานๆ ที่

ค่อนข้างบ่อย แทบทุกวัน

10. ท่านเคยมีประสบการณ์ที่ไม่ดีเกี่ยวกับการจัดการเนื้อหาของผู้ดูแลระบบ (Admin) ของ Pantip.com หรือไม่

ไม่เคยเลย เคย

10.1 หากท่านตอบว่า “เคย” ประสบการณ์ที่ท่านเจอเป็นลักษณะใด โปรดเรียงลำดับ 1-3

โดย 1 หมายถึง ประสบการณ์ที่เจอมากที่สุด

2 หมายถึง ประสบการณ์ที่เจอรองลงมา

3 หมายถึง ประสบการณ์ที่เจอน้อยที่สุด

- | | |
|---|--|
| <input type="checkbox"/> ถูกเตือนเรื่องเนื้อหาไม่เหมาะสม | <input type="checkbox"/> ถูกลบเนื้อหาโดยไม่ทราบสาเหตุ |
| <input type="checkbox"/> ถูกลบเนื้อหาโดยไม่มีเหตุผลที่ดีพอ | <input type="checkbox"/> ถูกลบเนื้อหาโดยไม่มีกรชี้แจง |
| <input type="checkbox"/> มีคนอื่นแจ้งลบโดยไม่ทราบสาเหตุ | <input type="checkbox"/> ทะเลาะกับคนอื่นจนถูกลบเนื้อหา |
| <input type="checkbox"/> เนื้อหาถูกลบทั้งที่เนื้อหาคล้ายกันไม่ถูกลบ | <input type="checkbox"/> การจัดการของเว็บบอร์ดยังมีช่องโหว่ ตามไม่ทันผู้ใช้งาน |
| <input type="checkbox"/> จัดการเนื้อหาเข้มงวดเกินไป | <input type="checkbox"/> ปล่อยให้มีการก้าวร้าว เสียดสี หรือทะเลาะกันในบอร์ด |
| <input type="checkbox"/> ปล่อยให้คนกลุ่มใหญ่มากดดันในบอร์ด | <input type="checkbox"/> ถูกคุกคามโดยวิธีต่างๆ จากคนอื่นในเว็บบอร์ด |
| <input type="checkbox"/> มีการปิดระบบคอมเม้นท์ | <input type="checkbox"/> มีการปิดห้องไม่ให้โพสต์กระทู้ |
| <input type="checkbox"/> ถูกยึดคอมเม้นท์หรือถูกยกเลิกสมาชิก | <input type="checkbox"/> ไม่ได้รับการช่วยเหลือเมื่อมีการร้องเรียนหรือฟ้องร้อง |

11. จากประสบการณ์ของท่าน สังเกตว่าเนื้อหาในลักษณะใดที่ผู้ดูแลระบบหรือ Web Admin ของ Pantip.com มักจะจัดการในทันที โปรดเรียงลำดับ 1-3

โดย 1 หมายถึง เนื้อหาที่ถูกจัดการเป็นอันดับแรก

2 หมายถึง เนื้อหาที่ถูกจัดการเป็นอันดับที่สอง

3 หมายถึง เนื้อหาที่ถูกจัดการเป็นอันดับที่สาม

- | | |
|--|--|
| <input type="checkbox"/> วิพากษ์วิจารณ์เรื่องการเมือง | <input type="checkbox"/> วิจารณ์สินค้าหรือบริการในแง่ลบโดยไม่มีข้อมูลอ้างอิง |
| <input type="checkbox"/> พาดพิงสถาบันพระมหากษัตริย์ | <input type="checkbox"/> พาดพิงบุคคลที่ 3 ในแง่ลบโดยไม่มีข้อมูลอ้างอิง |
| <input type="checkbox"/> ใช้คำหยาบคาย ก้าวร้าว รุนแรง | <input type="checkbox"/> ตั้งกระทู้หรือแสดงความคิดเห็นผิดห้อง |
| <input type="checkbox"/> ทะเลาะหรือขัดแย้งกับคนอื่นในเว็บบอร์ด | <input type="checkbox"/> ใช้คำส่อในทางลามก อนาจาร |
| <input type="checkbox"/> ทำทนายให้เกิดการทะเลาะกันในบอร์ด | <input type="checkbox"/> สร้างความรำคาญ กลั่นแกล้ง ทำให้ผู้อื่นเดือดร้อน |
| <input type="checkbox"/> อื่นๆ (โปรดระบุ) | |

12. ท่านคิดว่า Admin มีเกณฑ์อะไรในการตัดสินว่าเนื้อหาใดเป็นเนื้อหา “ไม่พึงประสงค์” และไม่ควรถูกนำเสนอบน Pantip.com

- ยึดตามหลักกฎหมาย เช่น พ.ร.บ.การกระทำผิดเกี่ยวกับคอมพิวเตอร์ กฎหมายหมิ่นประมาท เป็นต้น
- ใช้หลักศีลธรรมและจริยธรรม
- ใช้ประสบการณ์และดุลพินิจส่วนตัว
- ยึดตามนโยบายของเว็บไซต์
- ไม่มีหลักการใดๆ ทั้งสิ้น
- อื่นๆ (โปรดระบุ)

ส่วนที่ 3: การเซ็นเซอร์เนื้อหาในสื่อสังคมออนไลน์

คำชี้แจง กรุณาทำเครื่องหมาย ✓ ลงในช่องว่าง

5 = เห็นด้วยอย่างยิ่ง หรือมาก	4 = ค่อนข้างเห็นด้วย หรือค่อนข้างมาก	3 = เฉยๆ หรือ ปานกลาง	2 = ไม่ค่อยเห็นด้วย หรือน้อย	1 = ไม่เห็นด้วยอย่างยิ่ง หรือไม่มีเลย
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การเซ็นเซอร์เนื้อหาในสื่อสังคมออนไลน์	ระดับความคิดเห็น				
	5	4	3	2	1
1. เว็บไซต์เป็นพื้นที่สาธารณะเพื่อแลกเปลี่ยนความคิดเห็นอย่างเสรี จึงไม่ควรมีการเซ็นเซอร์					
2. การเซ็นเซอร์เนื้อหาในสื่อออนไลน์อย่างเว็บไซต์ เป็นการละเมิดสิทธิของผู้ใช้งานในการรับรู้ข้อมูลข่าวสาร					
3. ผู้ให้บริการสื่อออนไลน์อย่างเว็บไซต์ เปรียบได้กับพ่อส่งข้อมูลข่าวสาร ซึ่งมีหน้าที่เพียงให้พื้นที่ในการแลกเปลี่ยนข้อมูลความคิดเห็น มิใช่ผู้สร้างเนื้อหาเอง จึงไม่ควรมีการระมัดระวังเนื้อหาที่เผยแพร่ออกไป					
4. ผู้ให้บริการสื่อออนไลน์อย่างเว็บไซต์ เปรียบได้กับนายประตูข่าวสาร ซึ่งจะต้องดูแลเนื้อหาต่างๆ ที่ผ่านเข้ามาในระบบ เช่นเดียวกับบรรณาธิการในหนังสือพิมพ์ จึงควรมีภาระในการกลั่นกรองเนื้อหา ก่อนเผยแพร่					
5. เว็บไซต์เป็นพื้นที่สาธารณะที่ให้ผู้ใช้งานแลกเปลี่ยนข้อมูลข่าวสาร และแสดงความคิดเห็นได้อย่างเสรี ดังนั้น ผู้ใช้งานจึงควรมีส่วนร่วมในการกลั่นกรองเนื้อหา โดยสามารถแจ้งให้ผู้ให้บริการเว็บไซต์เซ็นเซอร์เนื้อหา ที่ผิดกฎหมายหรือไม่เหมาะสมได้					

ส่วนที่ 4: ระบบตรวจสอบการเซ็นเซอร์เนื้อหาในสื่อสังคมออนไลน์

ระบบตรวจสอบการเซ็นเซอร์เนื้อหาในสื่อสังคมออนไลน์ เป็นระบบที่ใช้ค้นหาข้อมูลหรือความคิดเห็นของผู้ใช้อินเทอร์เน็ตที่ถูกเว็บไซต์หรือเว็บบอร์ดต่างๆ ลบทิ้งไป โดยระบบจะค้นคืนข้อมูลหรือความคิดเห็นดังกล่าวกลับมา และนำมาแยกแยะหมวดหมู่เพื่อตรวจสอบว่าเนื้อหาประเภทใดถูกเซ็นเซอร์ไปบ้าง จากนั้นจึงจัดเรตติ้งหรืออันดับเว็บไซต์ที่มีการเซ็นเซอร์เนื้อหา เพื่อเป็นข้อมูลให้แก่ผู้ใช้อินเทอร์เน็ตประกอบการตัดสินใจว่าเว็บไซต์ใดมีระดับการเซ็นเซอร์แค่ไหน ก่อนที่จะแสดงความคิดเห็นหรือเผยแพร่ข้อมูลใดๆ ออกไป

คำชี้แจงกรุณาเลือกคำตอบ โดยทำเครื่องหมาย ✓ ลงใน

1. ท่านคิดว่าเว็บไซต์ต่างๆ จำเป็นต้องมีความโปร่งใสและเปิดเผยให้สาธารณะตรวจสอบได้ว่า มีการเซ็นเซอร์เนื้อหาในระดับใดหรือไม่

จำเป็น

ไม่จำเป็น

2. ท่านคิดว่าเว็บไซต์ต่างๆ จำเป็นต้องแสดงให้ผู้ใช้ทราบว่า มีนโยบายเกี่ยวกับการเซ็นเซอร์เนื้อหาในประเภทใดบ้างหรือไม่

จำเป็น

ไม่จำเป็น

3. ท่านคิดว่ามีความจำเป็นที่จะต้องจัดเรตติ้งเว็บไซต์ ในทำนองเดียวกับการจัดเรตติ้งเนื้อหาภาพยนตร์หรือรายการโทรทัศน์ที่มีการเซ็นเซอร์ในระดับต่างๆ กันหรือไม่

จำเป็น

ไม่จำเป็น

4. หากมีระบบที่ช่วยตรวจสอบเว็บไซต์ต่างๆ ว่ามีการเซ็นเซอร์เนื้อหาอะไรบ้าง ในระดับใด เพื่อนำมาจัด เรตติ้งเว็บไซต์ ท่านสนใจที่จะใช้ระบบนี้หรือไม่

สนใจ

ไม่สนใจ

5. ท่านเห็นว่าควรมีการจัดเรตติ้งการเซ็นเซอร์เนื้อหาของเว็บไซต์ต่างๆ หรือไม่

เห็นควร

ไม่เห็นควร

6. ท่านคิดว่าการจัดเรตติ้งการเซ็นเซอร์เนื้อหาของเว็บไซต์ ควรแสดงผลข้อมูลในด้านใดบ้าง (ตอบได้มากกว่า 1 ตัวเลือก)

ระดับการเซ็นเซอร์เนื้อหาในเว็บไซต์

ประเภทเนื้อหาที่ถูกเซ็นเซอร์

ความถี่ของการเซ็นเซอร์

ลักษณะของผู้โพสต์ข้อความที่ถูกเซ็นเซอร์

ลักษณะของเนื้อหาที่ถูกเซ็นเซอร์

เหตุผลหรือหลักการของการเซ็นเซอร์

อื่นๆ (โปรดระบุ)

APPENDIX B

IRS System and Design Interface

Prototype of IRS system and design interface is initially built under Microsoft Windows software. The process of use is explained step by step as:

1) IRS application starts with the interface of website crawler as shown in Figure B.1. In this case, PantipCrawler is used to collect data from Pantip.com. On the left hand side, there are two main menu tabs: Extract section and Compute section.

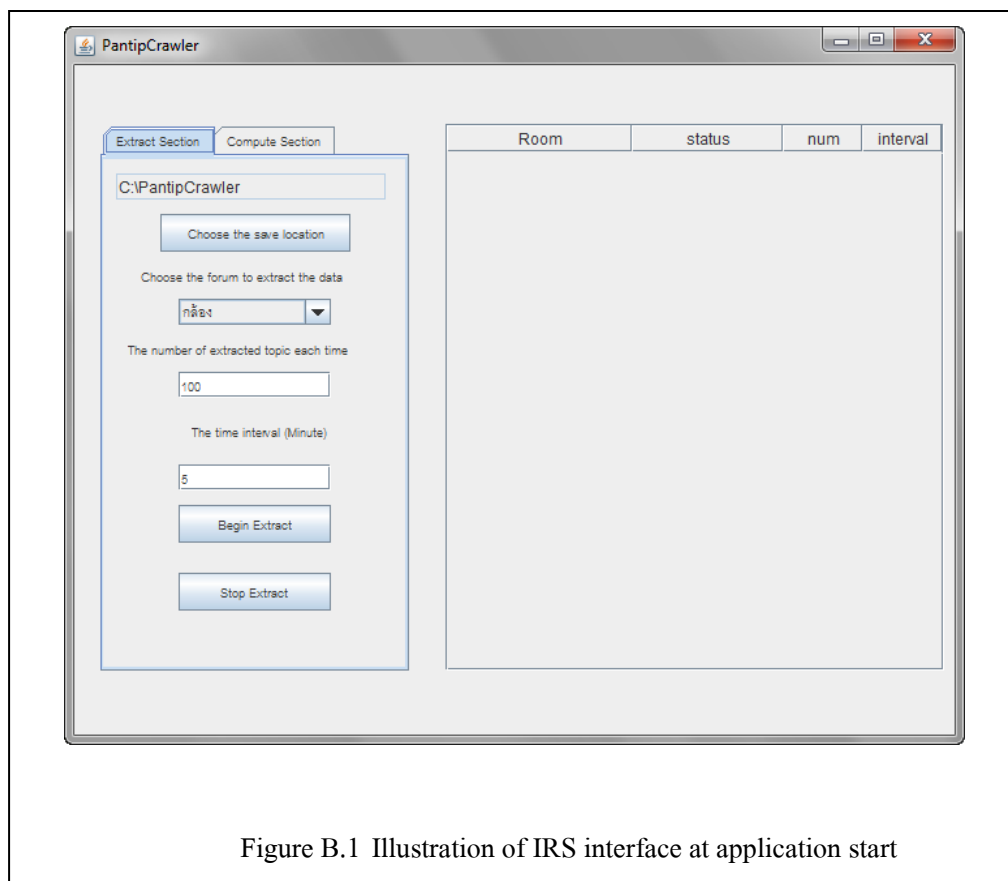


Figure B.1 Illustration of IRS interface at application start

- 2) Select location for saving collected data as shown in Figure B.2.

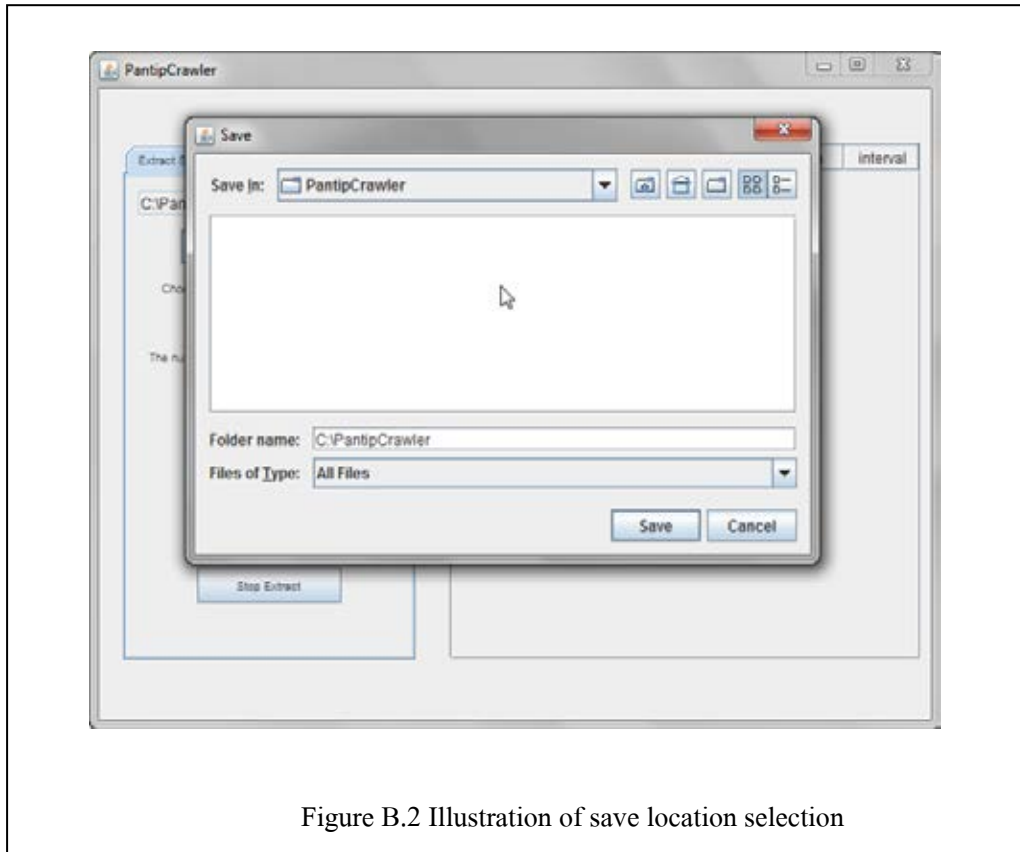
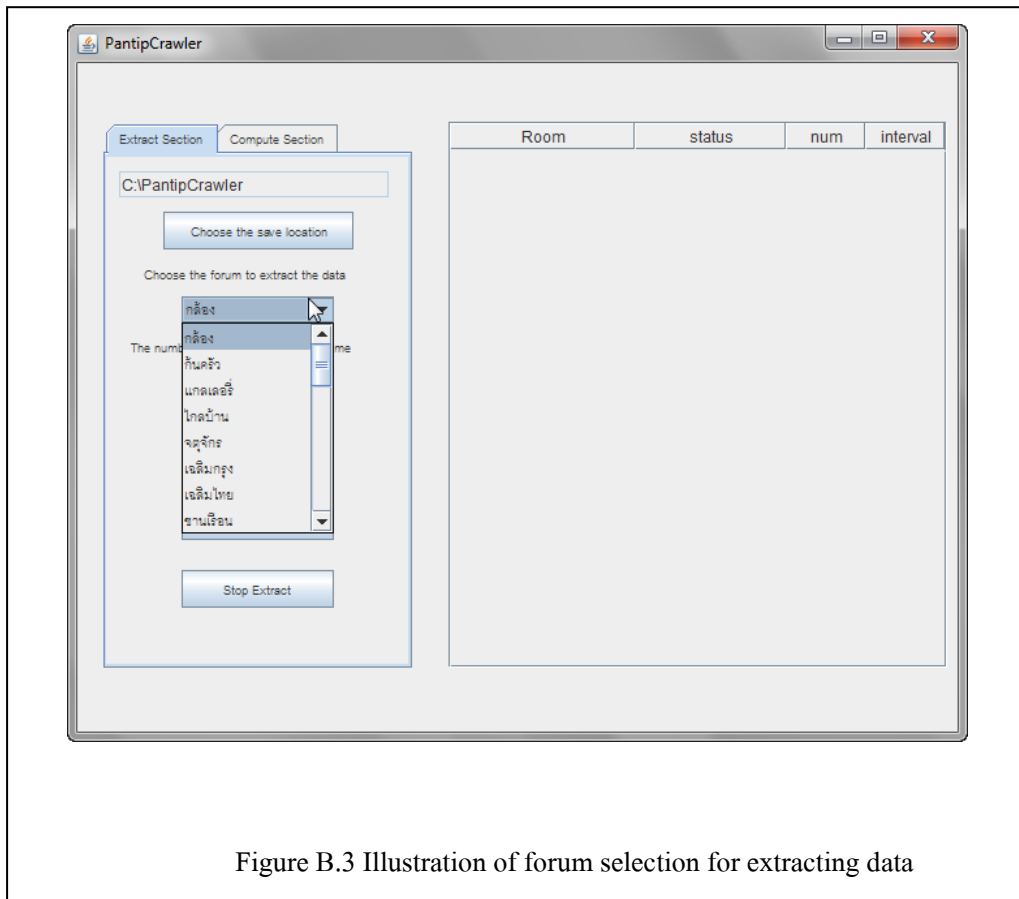
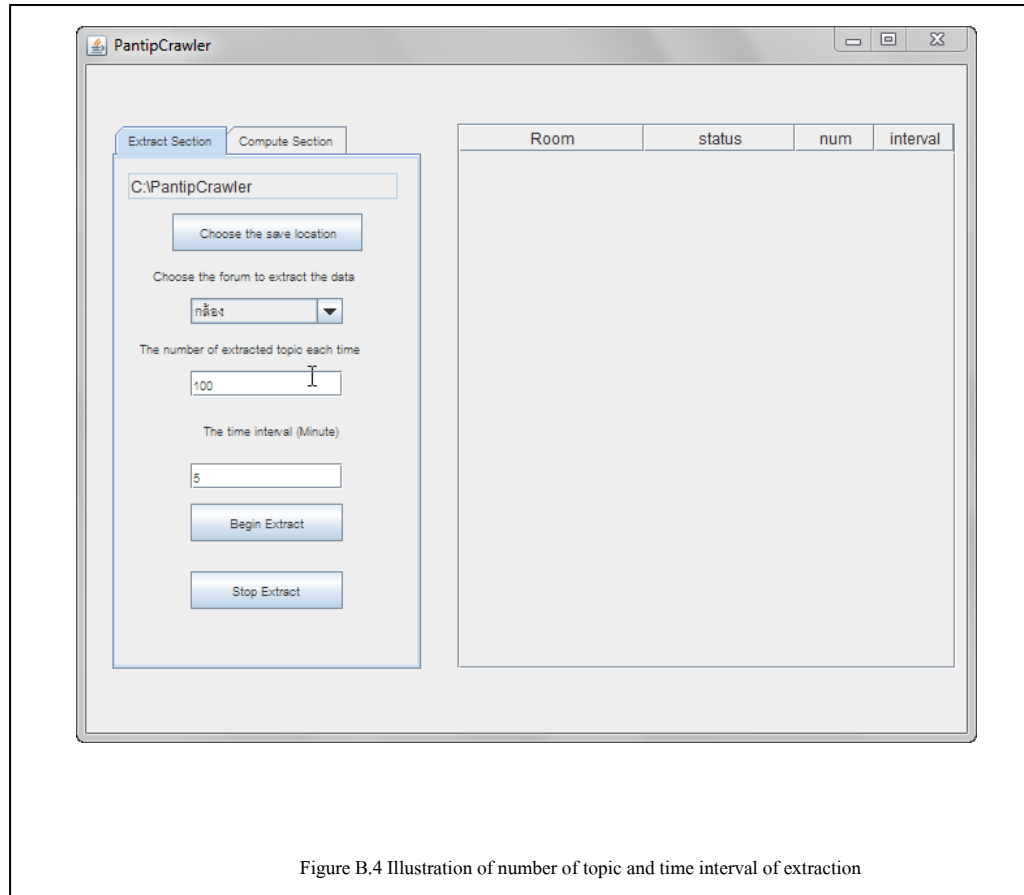


Figure B.2 Illustration of save location selection

3) Select the forum for extracting data as shown in Figure B.3.



4) Specify number of topic to extract and time interval of data extraction in minute as shown in Figure B.4. For example, specify 100 topics to extract in every 5 minutes.



5) Begin extraction and the boxes on the right hand side will display forums being extracted as shown in Figure B.5. Extraction could be stopped by selecting required forum and click 'stop extract'. The stop sign would be presented in status box as shown in Figure B.6.

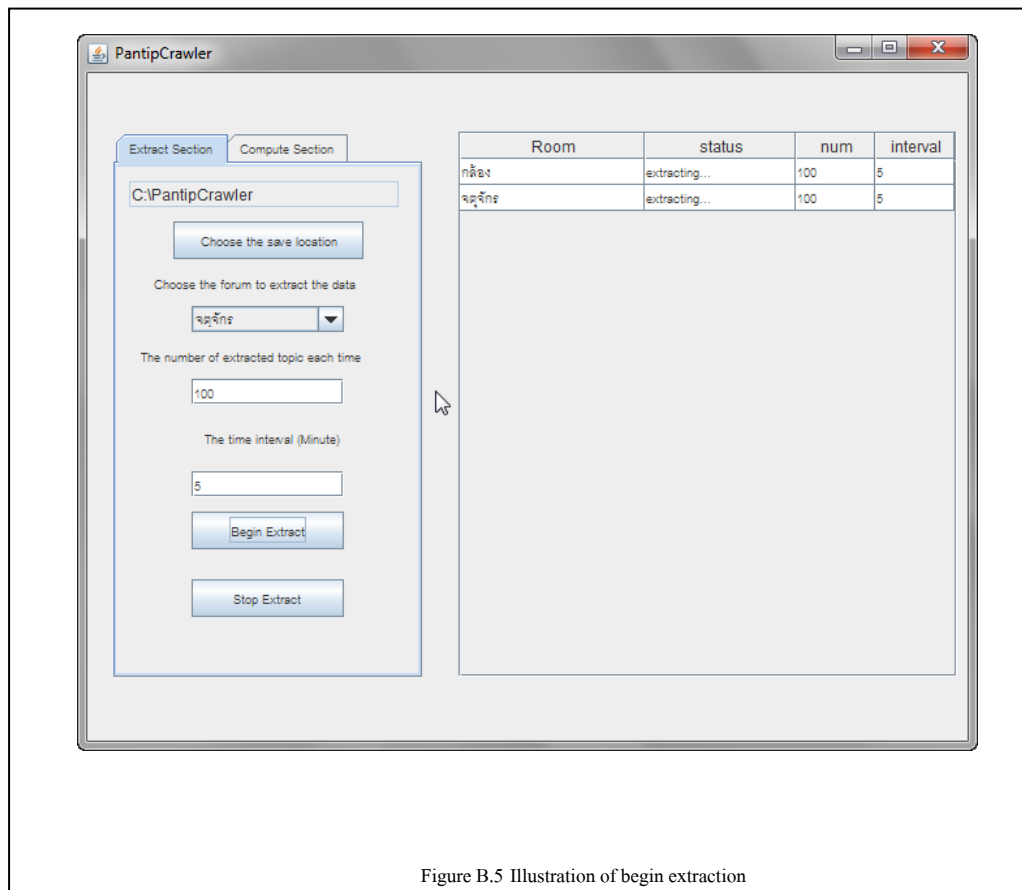


Figure B.5 Illustration of begin extraction

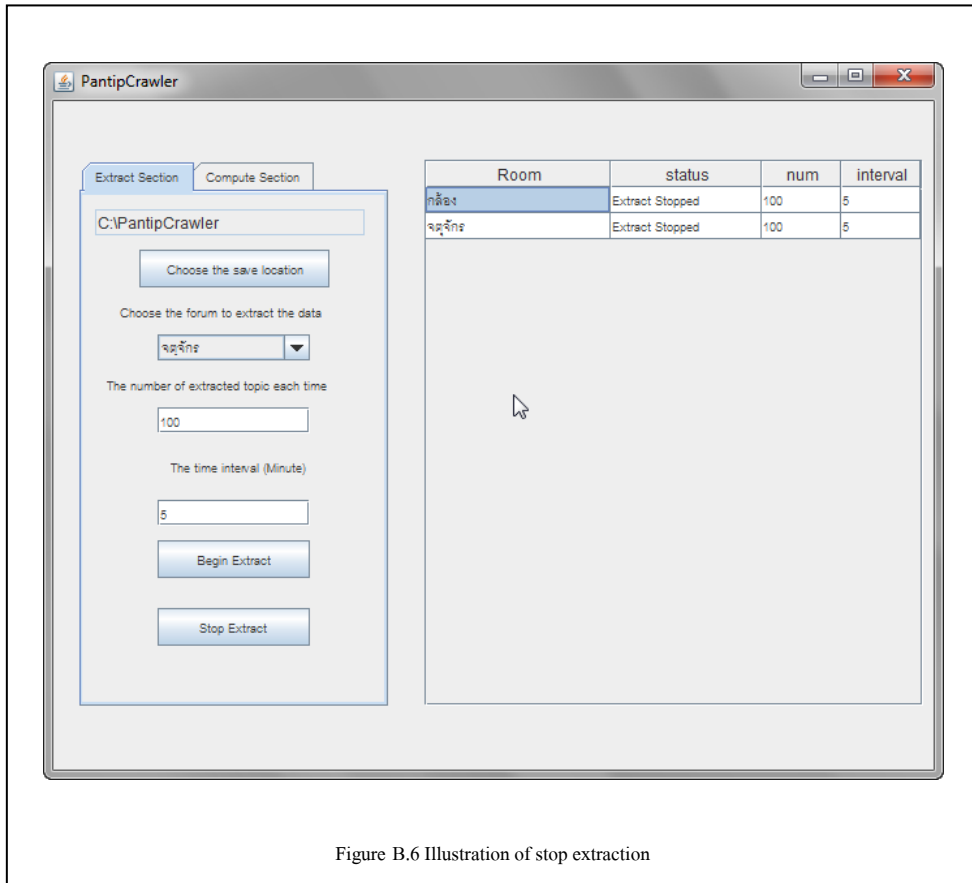


Figure B.6 Illustration of stop extraction

6) To analyze the collected data, select menu tab 'Compute section' and there are two options to select data to analyze. First, select the extracted forum on the right hand side and click 'Begin compute' as shown in Figure B.7. Second, click 'Choose the save location' to select extracted forum in folders and click 'Begin compute' as shown in Figure B.8.

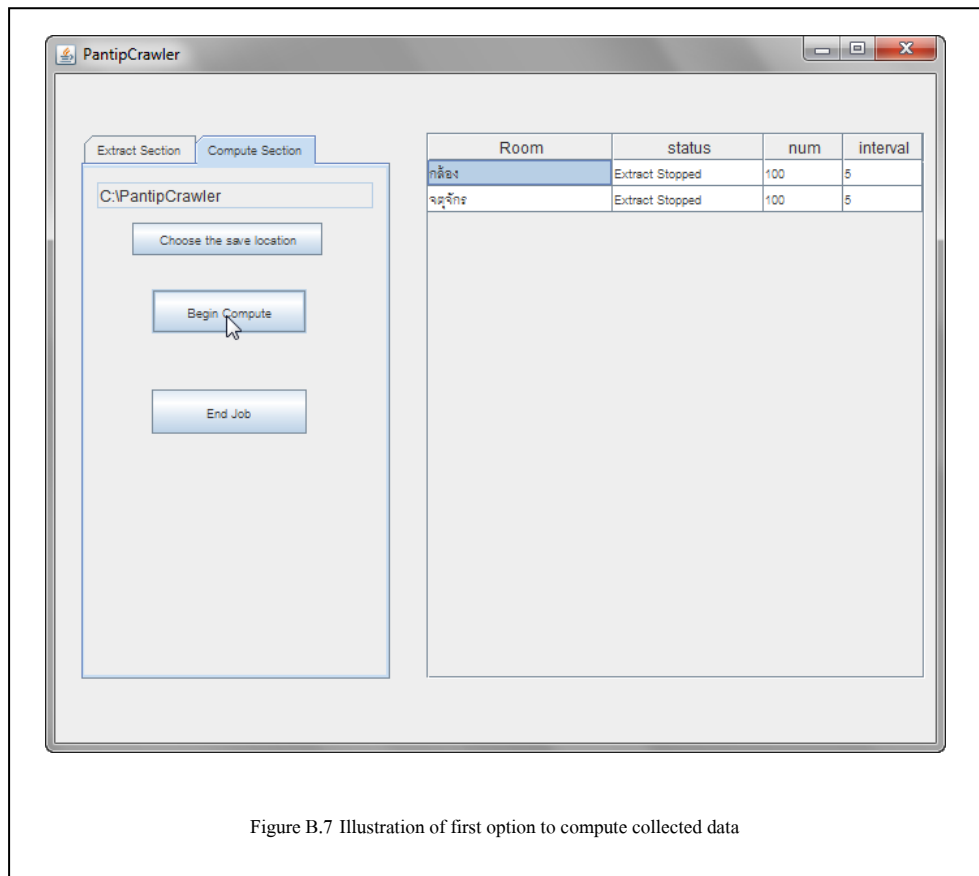


Figure B.7 Illustration of first option to compute collected data

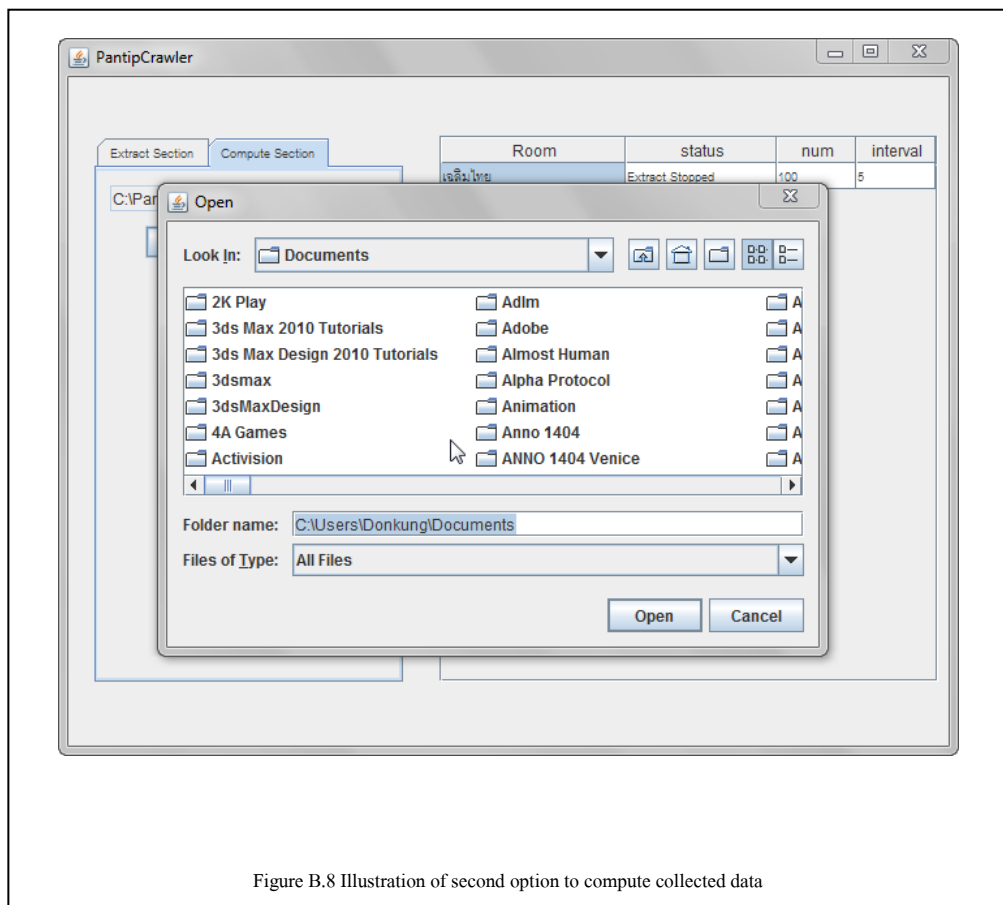
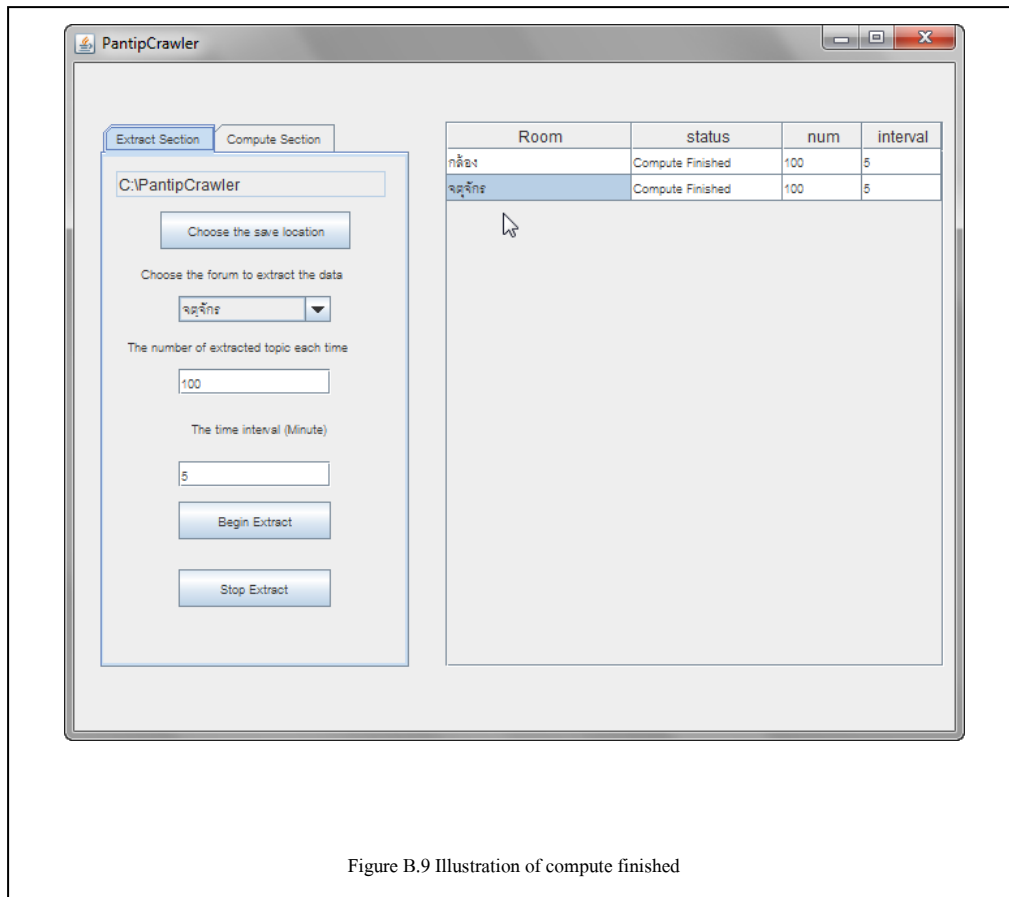


Figure B.8 Illustration of second option to compute collected data

- 7) When the analysis has finished, the status box on the right hand side would display 'Compute finished' as shown in Figure B.9.



8) The result of analyzed data would be shown in excel file. It contains several aspects including date and time of data collection, identification numbers and topics of removed threads and comments, content of removed threads and comments, log-in name, and attached files as shown in B.10.

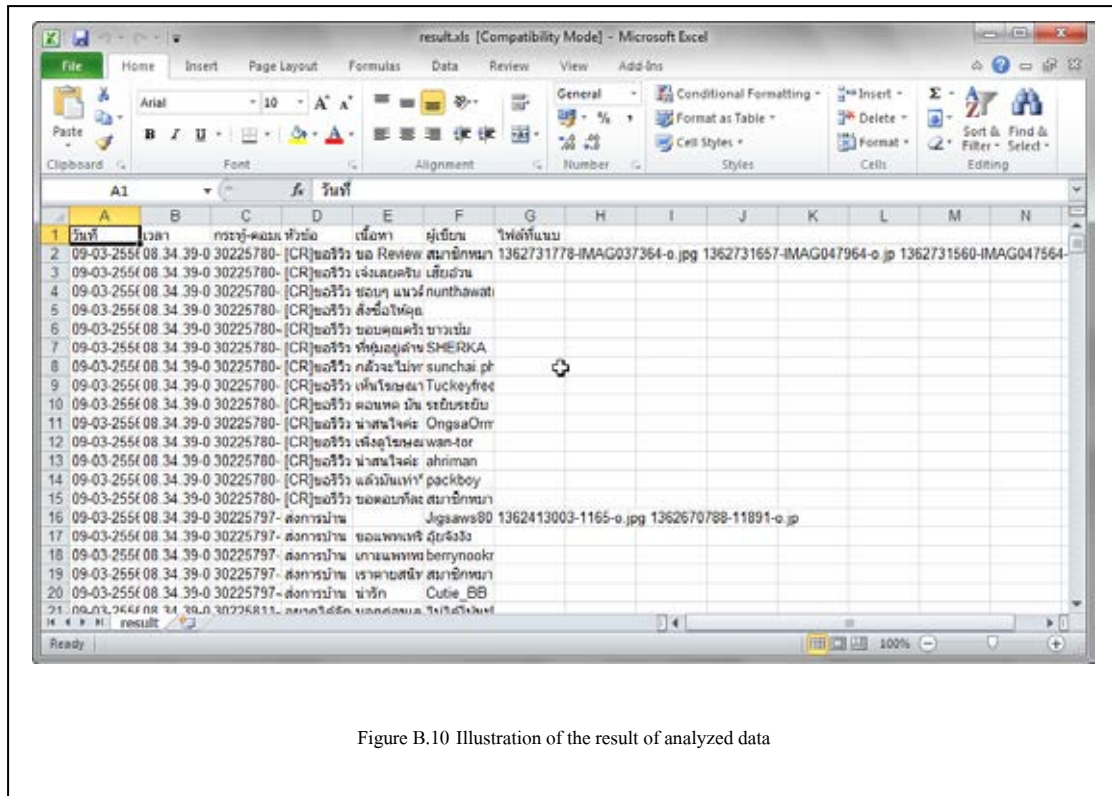


Figure B.10 Illustration of the result of analyzed data

BIOGRAPHY

Baramee Navanopparatskul was born in January 1977. He received his Bachelor's degree in Environmental Engineering at King Mongkut's University of Technology Thonburi in 1997. He then pursued his study and graduated in Master's degree in Environmental Management at Illinois Institute of Technology, Chicago, USA, in 2000. Currently, he works as a news anchor at Channel 3 and as managing director at Suki Media Co., Ltd.