

# We Are Watching You!

Danuvasin Charoen\*

## Abstract

While sitting in his office in downtown Bangkok on May 22<sup>nd</sup>, 2014, Mr. Thomas Drucker, the managing director of IBC (International Business Computing), was shocked about the news that the Royal Thai Army had launched a coup d'état against the caretaker government of Thailand following six months of political unrest. Coming from the US, reputedly the most democratic country in the world, he was displeased with this disturbing news. After the coup, the military created a junta called the National Council for Peace and Order (NCPO) to govern Thailand. He pondered what effect this coup would have on the company's business in Thailand.

A week later, Drucker was outraged to learn from the news that the military was hunting down Internet users who had posted contents against the coup. The news also mentioned that the junta was setting up a surveillance center to monitor any citizens who provided comments against the junta's policies. "What type of country are we in?," he asked his wife. "Absolute power corrupts absolutely," she calmly replied.

A couple days later, the IBC announced that it was looking for a promising candidate that would supervise the newest IT business solution division. Thomas had high expectations for anyone that would be in this position because the new division would be tasked with penetrating the new market for IBC's business services in Thailand.

As Thomas paused, the phone rang. At the other end of the line was Dan Grestner, the CEO of IBC and Thomas's direct boss. Dan told Thomas that he heard that the IBC (Thailand) had opened a director position for the

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newest IT business solution. During his lecture at MIT, he went on, he had met a promising Thai student, Tanakorn Sakchai, who had just graduated with honours in his MBA degree, majoring in IT management. Tanakorn also had had extensive experience in IT management. Dan hoped that Tanakorn could fill the opened directorial position. He mentioned: "He is one of the smartest people I have ever met." Thomas replied, "I'm looking forward to meeting him."

Two days later, Tanakorn came to Thomas's office. Tanakorn told Thomas that he had lived and worked in the US for ten years after graduating from Chulalongkorn University with a honour's computer engineering degree. He had worked for several global IT companies, such as Microsoft, Google, and Amazon. He now wanted to be at home, he explained, so that he could be close to his family. Also, he really wanted the director position for IT business solutions because he could apply both his technical knowledge and business background to the job. Thomas was really impressed with Tanakorn's qualifications. "Welcome aboard," he said to Tanakorn. "I'm looking forward to working with you soon." Tanakorn replied, "Thanks, Boss."

Soon thereafter, IBC HR manager Somsri Benjawan, in undertaking her customary practice of investigating the social media profiles of job candidates, came upon a *Los Angeles Times* newspaper article that identified Tanakorn as a fervent supporter of former Prime Minister Yingluck. In addition, Tanakorn was identified in the article as a key participant with the anti-coup Facebook page, where he often posted harsh comments against the military. Searching the anti-coup page, Somsri saw that Tanakorn was one of its most avid supporters. Somsri knew that she had to reveal her findings to her boss, Thomas.

Walking into his office, Somsri began with, "I think we have a situation on our hands." She then went on to explain what she had uncovered in her search of Tanakorn's name on the Internet and social networks. "We found many records of him supporting the anti-coup on the Internet and social networks," she continued. "This can get our business in Thailand in trouble."

Thomas instantly, albeit reluctantly, surmised that he might have to reconsider Tanakorn's candidacy. But, he knew that people with his credentials did not walk into the door of the company every day. "If we let him

go, he might be swept up by our competition,” he fretted. “But, on the other hand, if someone Googles his name or checks his name on social networks, this might get us in trouble with the military, which at the moment governs the country.”

Upon his arrival home, Thomas remained conflicted about what to do. Tanakorn was the perfect candidate for the job, he had the support of the CEO, and the Company’s policy had always been to support democracy and freedom of expression. But, on the other hand, if the Company brought Tanakorn aboard and someone later found out about his history on the Internet, the Company could have serious problems with the military. And he *knew* that that IBC could not afford to have the military as its enemy. “What should I do?,” he finally asked aloud, his voice almost quavering with anguish.

**Keywords:** Internet Privacy, IT Ethics, Privacy issues on Internet, Thailand, Freedom of Expressions on Internet

## เรากำลังจ้างมองคุณอยู่!

ดนุวสิน เจริญ\*

### บทคัดย่อ

วันหนึ่งหลังจากที่เกิดรัฐประหารในประเทศไทยได้สามเดือน นายโทมัส ดร็กเกอร์ (Thomas Drucker) ซึ่งเป็นผู้บริหารสูงสุดของบริษัท IBC (ประเทศไทย) ได้รับโทรศัพท์จากนายแดน เกรอสเนอร์ (Dan Grestner) CEO ของบริษัท IBC แนะนำนายธนากร คักดีชัย ซึ่งเพิ่งจบปริญญาโทด้าน IT Management จากมหาวิทยาลัย Massasusete Institute of Technology หรือ MIT และเคยทำงานกับบริษัท IT ขนาดใหญ่ ซึ่งมีความเหมาะสมอย่างมากในตำแหน่ง ผู้จัดการด้าน IT Management หลังจากนั้นอีกสองวันนายธนากรก็เดินทางมาที่บริษัทเพื่อเข้าพบ นาย Thomas การสัมภาษณ์เป็นไปด้วยดี นาย Thomas ค่อนข้างทึ่งกับความสามารถและทักษะของธนากร คำถามสุดท้ายที่ Thomas ถาม คือ ความคิดเห็นของธนากรสำหรับประเด็นการเมืองในประเทศไทย ธนากรได้ตอบว่าเขาไม่อยู่ข้างใดและไม่มีความเห็นเกี่ยวกับประเด็นการเมืองในประเทศไทย

หลังจากเสร็จสิ้นการสัมภาษณ์ นายโทมัสค่อนข้างมั่นใจว่าธนากรมีความเหมาะสมอย่างยิ่งกับตำแหน่งผู้จัดการ จากนั้นนาย Thomas ก็ยื่นใบสมัครพร้อมประวัติของธนากรให้กับ นางสมศรี ซึ่งเป็นผู้จัดการแผนทรัพยากรมนุษย์ (HR) ตรวจสอบประวัติของธนากร นอกจากเอกสารที่ได้รับจากธนากรแล้ว สมศรียังได้ทำการ google ชื่อของธนากร หลังเข้าไปดูผลของการค้นหาถึงหน้า 15 เธอได้พบบทความของหนังสือพิมพ์ Los Angeles Time ซึ่งได้ระบุว่านายธนากร คักดีชัย เป็นหนึ่งในผู้ต่อต้านรัฐบาล คสช. โดยธนากรได้โพสต์เนื้อหาต่อต้านรัฐบาล คสช. บนสื่อสังคม เช่น Facebook และ Twitter เมื่อสมศรีพบข้อมูลเหล่านี้จึงรู้สึกไม่สบายใจและได้รายงานให้กับนาย Thomas ทราบ หลังจากที่นาย Thomas ทราบข้อมูลก็เกิดอาการเครียดอย่างหนัก เพราะธนากรเป็นคนที่มีความเหมาะสมอย่างมากต่อตำแหน่งผู้จัดการ เป็นคนที่มีความสามารถ ความรู้ นอกจากนี้ ยังเป็นคนที่ CEO แนะนำ และต้องการให้เข้ามาทำงานกับบริษัทเป็นอย่างมาก ในทางกลับกัน การรับธนากรเข้ามาทำงานก็ถือว่า

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เป็นความเสี่ยงของบริษัท เนื่องจากบริษัทมีหลายโครงการที่ต้องทำงานร่วมกับรัฐบาล และโดยเฉพาะอย่างยิ่งในสภาพแวดล้อมที่รัฐบาลทหารมีอำนาจเบ็ดเสร็จ

**คำสำคัญ:** ข้อมูลส่วนตัว ข้อมูลส่วนตัวบนอินเทอร์เน็ต เสรีภาพในการแสดงความคิดเห็น การหาข้อมูลส่วนตัวบนอินเทอร์เน็ต

While sitting in his office in downtown Bangkok on May 22<sup>nd</sup>, 2014, Mr. Thomas Drucker, the managing director of IBC (International Business Computing), was shocked about the news that the Royal Thai Army had launched a coup d'état against the caretaker government of Thailand following six months of political unrest. Coming from the US, reputedly the most democratic country in the world, he was displeased with this disturbing news. After the coup, the military had created a junta called the National Council for Peace and Order (NCPO) to govern Thailand (See Appendix 1). He pondered what effect this coup would have on his company's business in Thailand.

A week later, while having dinner with his wife, Thomas was outraged to learn from the news that the military was hunting down Internet users who had posted contents against the coup. He queried Martha: "What type of country are we in?" Martha shook her head gently and responded, "Absolute power corrupts absolutely." The news also mentioned that the junta was setting up a surveillance center to monitor any citizens who made comments against the junta's policies.

A couple of days later, the IBC went forward with an earlier-planned announcement that it was looking for a promising candidate to supervise the newest IT business solution division. Thomas had high expectations for anyone who would fill this position because the new division would be responsible for penetrating the new market for the IBC in Thailand.

## **The Promising Candidate**

As Thomas paused, the phone rang. At the other end of the line was Dan Grestner, the CEO of IBC and Thomas's direct boss. Dan told Thomas that he heard that the IBC (Thailand) had opened a director position for the newest IT business solutions. He stated that during his recent lecture at MIT, he had met a promising Thai student, Tanakorn Sakchai, who had just graduated with honours in his MBA degree, majoring in IT management. Tanakorn also had had extensive experience in IT management. Dan hoped that Tanakorn could fill the now-opened directorial position. He mentioned: "He is one of the smartest people I've ever met." Thomas replied, "I'm looking forward to meeting him."

## About IBC

IBC or International Business Computing was an American multinational technology and IT consulting corporation, with headquarters in Los Angeles, California, United States. IBC manufactured both computer hardware and software, in addition to offering data centers and web hosting as well as consulting services in areas of information technology. It was founded in 1950 by four young scientists from Stanford University. The company motto was “Be democratic,” which reflected the founders’ conviction that employees were to be encouraged to have their own voices and different opinions. The company emphasized the value of diversity of both people and ideas. In addition, IBC announced that it would have zero tolerance for any discrimination based on individual identity or beliefs. The company took extraordinary care in recruiting its people. Not only did job candidates need to be highly qualified, but also they had to have unimpeachable integrity.

In 2014, Fortune ranked IBC the third largest U.S. firms in terms of number of employees (300,000 worldwide) and the fifth largest in terms of market capitalization. Forbes ranked IBC number 1 in terms of being the most democratic company.

IBC’s strategic direction gravitated around investment in developing economies. The mission of the company was to help local businesses become efficient through the use of information systems and technology. In the past, IBC had tried to invest in China. However, the Chinese government required international firms to reveal the internet usage of the users and employees to the government. Consequently, IBC had decided to not invest in China, despite the Chinese market being the largest one for IBC’s lines of business.

IBC viewed Thailand as an emerging market that provided excellent opportunity for the business to grow and become successful financially. As the second largest Southeast economy by both gross domestic product and population, Thailand was already an economic powerhouse that was likely to continue to grow and prosper in the future. Hence, senior IBC management believed that expansion of their business into the Thai market made eminently good business sense. Further, with the ASEAN Economic Community scheduled to become almost fully operational by January 1, 2016, IBC’s presence in the Thai market might serve as a springboard for launching additional offices in the region as time progressed.

## Overview of Thailand

### Culture and Demographics

Located in the strategic centre of the South-East Asian peninsula and bordered by the Gulf of Thailand, Myanmar, Laos, Cambodia, and Malaysia, the Kingdom of Thailand was the world's 50<sup>th</sup> largest nation in land mass (513,115 square kilometers, or 198,120 sq mi) and the 20<sup>th</sup> largest country in population (estimated in 2010 as slightly more than 67 million people). (See Appendix 2) The country was divided into six regions (North, Northeast, East, South, West, and Central) plus the administrative region comprising the capital, Bangkok ("Krung Thep"), which was by far the most significant urban area in the country. Demographically, the country was comprised of a majority of ethnic Thais, but also had a substantial population of persons of Chinese descent (14%), as well as a scattering of other distinct ethnic groups (e.g., the peoples of the several so-called "Hill Tribes"). Approximately 71% of the population fell into the 15-64 age group, although a significant portion (nearly 20%) were in the 0-14 age group and slightly more than 9% were in the 65 years and older group. A 50:50 ratio of males to females pertained in each age group. The population growth was 0.566% as of 2011, which represented a decline from the previous year. While the culture of Thailand had been shaped by many influences, including the ancient civilizations of India, China, and Cambodia, Buddhism -- the state religion, as well as the religious preference of nearly 95% of the population -- had exerted the most profound influence on the ethos and mores of Thai society. The country was also alone among its Southeast Asia neighbors in the distinction of never having been a colony at any point in its long history.

Thailand enjoyed a high level of literacy, with nearly 93% of the population who were 15 years old and over able to read and write. Education was provided mainly by the Thai government through the Ministry of Education and was free through the first twelve years of school, but was compulsory only through the first nine years.

### Economics

Economically, Thailand was an emerging economy and was considered a "newly-industrialized country," with the main industries being electronics, automobile manufacturing, and agro-industry. Although most



of the country's labor force worked in the agriculture sector, manufacturing nonetheless accounted for 40% of the GDP, as shown in the following table.

The Structure of Thai Economy [1]

Sector	% of GDP by Sector	% of Labor Force by Sector
Agriculture	8.3	43.3
Manufacturing	40	13
Wholesale and Retail Trades	13.3	15.1
Construction and Mining	4.4	4.8
Other Services (financial, educational, hotels, restaurants, etc.)	33.2	23.9

Thailand's was a heavily export-dependent economy, with exports accounting for more than two thirds of the gross domestic product. In descending order of export value, computers and parts, vehicles and parts, and electrical appliances were the country's major export items, while crude oil and electrical machinery and parts were the main import items (see the table below).

Major Export and Import Items [1]

Major Export Items		Major Import Items	
Computers and parts	8.5%	Crude oil	12.5%
Vehicles and parts	9.6%	Electrical machinery & parts	8.9%
Electrical appliances	7.1%	Industrial machinery & part	7.5%
Base metal products	4.1%	Iron and Steel	6.1%
Plastic products	4.8%	Integrated circuits	3.6%
Petroleum products	4.5%	Computer parts	2.2%

## Politics and Governance

Since the reform of the absolute monarchy in 1932, politics and government were conducted within the framework of a constitutional monarchy, with a prime minister as the head of government and a hereditary monarch as the head of state. In concert with the traditional structure of parliamentary systems of governance, the Thai executive branch was also an active participant in the legislative branch of government. An independent

judiciary with a supreme court of final authority comprised the third branch. Since the reformation, Thailand had undergone 19 military coups d'état and 18 constitutions and charters, reflecting a high degree of political instability. Moreover, throughout the reform period, Thailand had experienced many political crises, such as Black May in 1992 and the more recent Yellow Shirt and Red Shirt protests, which again demonstrated the pronounced fragility and instability of the Thai polity.

The period from late-2013 through mid-2014 had been a time of especially severe political instability. Anti-Government demonstrations took place between November 2013 and May 2014. These nearly daily mass rallies at sites throughout the capital were organized by the People's Democratic Reform Committee (PDRC), an anti-government pressure group set up and led by former Democrat Party (the opposing party) MP and Deputy Prime Minister Suthep Thaugsuban [2]. The antics of the PDRC had been aimed at forcing the prime minister, Yingluck Shinawatra, from office – an objective that was eventually achieved by way of an May 2014 ruling of the Constitutional Court finding that the prime minister was guilty of charges of abuse of power over the transfer of national security chief Thawil Pliensri in 2011 [3], and therefore had to vacate the premiership. Within sixteen days thereafter, the supreme commander of the Royal Thai Army dissolved the remainder of Shinwatra government and declared that the military junta that had launched the putsch would henceforth be in charge of the government (see Appendix 3).

## **The Internet in Thailand, Google Search, and Privacy**

### **The Internet in Thailand**

Thai people, particularly the younger generation, had enthusiastically joined the internet revolution from the very outset of its origins. By 2010, out of a population of an estimated 67 million, there were nearly 29 million internet users, more than half of whose internet access was through smart phones or tablets. Indeed, much of the recent growth in internet users was due to the high growth among smartphone users (see Appendix 4). Bangkok and the central region had the largest number of people using the internet and computers (see Appendix 5). Nearly 55 percent of people of ages 15 to 24 had access to the internet, although only about 6 percent of people older than 50 did (see Appendix 6). The Top Ten websites visited in Thailand were Google Thailand

(google.co.th), google.com, Facebook, Youtube, Dealfish.co.th, Blogspot.com, Pantip.com, Yahoo, Wikipedia, and Windows Live (see Appendix 7).

### **The Workings of Google Search<sup>1</sup>**

While there were a number of search engines available on the internet, Google was by far the most successful one. Its search engine, like all the others, used software called “web crawlers” to find publicly available webpages. The most well known crawler, named “Googlebot,” looked at web pages and followed links (as known as “web link” or “hyperlink”) on every web page. Crawlers visited every web page through the link and then copied those webpages into Google’s servers. The web was like a library with billions of books. Google gathered the pages during the crawlers’ traversing of the web and then created an index akin to the index in the back of a book (see Appendix 8). The Google index included information about web contents and locations. Thus, when users searched for information, Google’s algorithms looked up the search terms in the index to find the right pages. Google’s search algorithm ranked web pages by relevancy and popularity. The search results could contain text, pictures, and videos.

### **Privacy on the Internet**

*Privacy is the right to be left alone -- the most comprehensive of rights, and the right most valued by free people.* [Justice Louis Brandeis, *Olmstead vs U.S.* (1928)]

In the age of the Internet, there were many ways in which people could search for other people’s personal information. The most popular form of internet use was social networks in which people posted their personal information, thoughts, opinions, etc. on the Internet for others to see. In consequence, with their personal information potentially exposed to the public, people unwittingly endangered their own privacy. More specifically, what was once their personal beliefs and opinions, formerly considered private information, could now be searched on line.

The evolution of the Internet had changed the employment landscape in fundamental ways. For example, traditionally, a background check of a job candidate was not conducted until after an applicant had gone through initial selection and interviews and been selected as a finalist. In the past,

someone with a troubling history could have a fresh start in a new location. Today, qualified candidates could be “googled” even before they set a foot in the door of the company.

### **Privacy and Social Networks**

Social networks were the websites or systems that allowed people to create their profiles and link the profile with those of other people. People could share text, pictures, and video on the social network websites (see Appendices 9-11). The contents could “go viral” when people widely shared the contents. Among nearly 29 million internet users in Thailand, nearly 19 million users were actively using Facebook. Eighteen million people were using Line; about 5 million users used YouTube; and, 2 million used Twitter (see Appendix 12). The most popular activity on the social network websites was reading the content (see Appendix 13).

Social networks allowed people to do what they could not do in the off-line world because outside the social networks it could be very awkward to inquire into other people’s lives. There were restrictions in the real-world concerning, for example, the inappropriateness of asking people for their private information or political beliefs. Even with a person’s closest friend, it could be very inappropriate to ask about personal information or beliefs. Unlike the real-world, on the internet and social network, people could access personal information without any permission of the owners (see Appendix 14).

### **The Interview**

Two days after his boss had called to discuss Tanakorn’s impressive background and laud him for his capabilities, Tanakorn came to Thomas’s office to discuss the advertised position. Tanakorn told Thomas that he had lived and worked in the US for ten years after graduating from Chulalongkorn University with a honour’s computer engineering degree. He had worked for several global IT companies, such as Microsoft, Google, and Amazon. Tanakorn had returned to his native country because, he explained, he wanted to be at home so he could be close to his family. Also, he really wanted the director position for IT business solutions, he explained, because he could apply both his technical knowledge and business background to the job.

Thomas was very impressed with Tanakorn's qualifications. There was no question in Thomas' mind that Tanakorn had the skills and experience with which to be an outstanding director. Thus, as the interview drew to a close, Thomas said to Tanakorn, "Welcome aboard; I'm looking forward to working with you soon." Tanakorn replied, "Thanks, Boss."

## **The Google Search**

Somsri Benjawan was the human resources (HR) manager and had been with IBC for twenty years. Although Thai, Somsri's heart and mind belonged to the company. Her job was to screen job candidates and make sure that anyone who was hired to do a job at IBC was qualified. To this end, it has always been her practice to scan the first 20 pages of Google search results. In addition, she also investigated the social media profiles of the candidates, including perusal of the content from the candidate's Facebook, Instagram, Twitter, and YouTube pages.

It was while searching for Tanakorn's name on Google page 15 that she came upon an article from *Los Angeles Times* newspaper that identified Tanakorn as a strong supporter of former Prime Minister Yingluck. In addition, Somsri also found out that Tanakorn was participating on the anti-coup Facebook page, e.g., posting harsh comments against the military. In searching the anti-coup page, Somsri discovered that Tanakorn was one of the most avid supporters of the site. She knew immediately that she needed to bring these findings to Thomas' attention.

## **The Bad News**

As Somsri walked into Thomas's office, Thomas had the feeling that whatever she would say would not make him happy. "Ok, what is it?" he asked, as his breathing momentarily stopped. Somsri replied:

*I think we have a situation on our hands. I have been searching Tanakorn's name on the Internet and social networks. I found that Tanakorn might be a guy that could get the company in trouble. We found many records of him supporting the anti-coup side on the Internet and social networks. This could get our business in Thailand in trouble.*

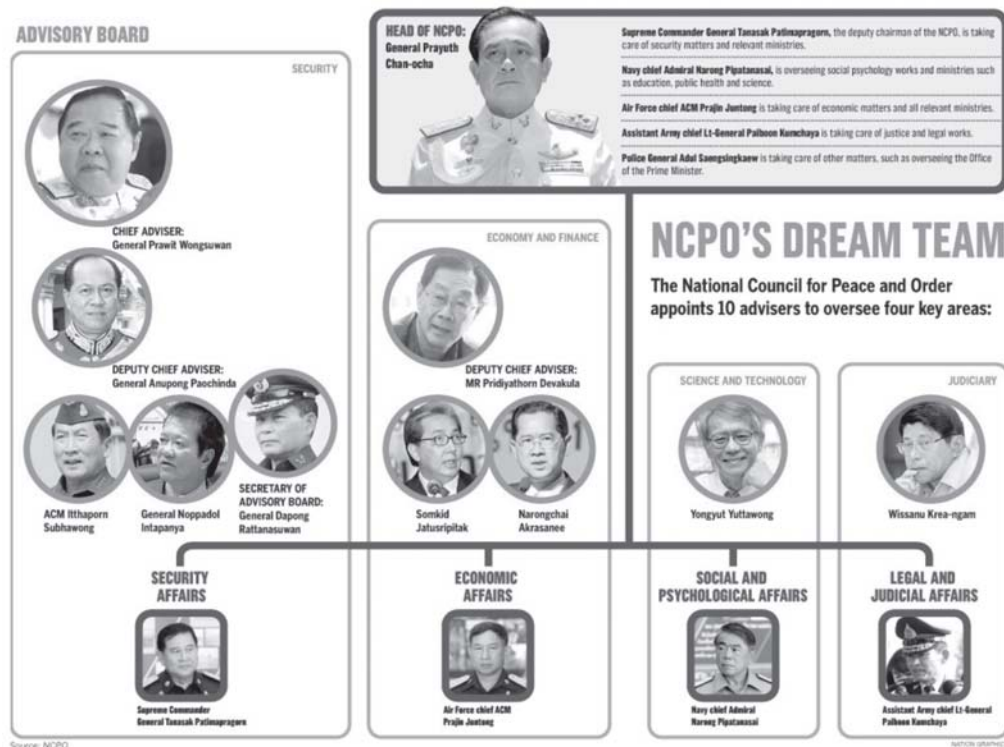
Thomas hesitantly conceded, “Maybe.” Dejected at the thought, he instantly, albeit reluctantly, surmised that he might have to reconsider Tanakorn’s candidacy. On the one hand, he knew that people with Tanakorn’s credentials didn’t walk through the doors of the company every day. “If we let him go, he might be swept up by our competition,” he thought to himself. “But, on the other hand, if someone “googles” his name or checks his name on social networks, this might get us in trouble with the military, which at the moment governs the country.”

### **The Decision Point**

After Thomas got home and as he prepared to have dinner with his wife, his face indicated that he had a lot on his mind. “What am I supposed to do?” he finally asked in anguish.

*Tanakorn is a perfect candidate for the job. We can’t easily find professionals like him. He also has the support of the CEO. Further, our company’s policy has always been to support democracy and freedom of expression. But, if we bring Tanakorn aboard and someone later finds out about his history of anti-coup postings on the Internet, the company might be in trouble with the military. And, we know that we cannot afford to have the military as our enemy. What should I do?”*

## Appendix 1: The Structure of the National Council for Peace and Order (NCPO)



Source: <http://internationalpoliticalforum.com/wp-content/uploads/2014/05/Picture-42.png>



## Appendix 2: Map of the Kingdom of Thailand



Source: <http://www.ezilon.com/maps/asia/thailand-maps.html>



### Appendix 3: Timeline of Political Developments in Thailand, 2001-2014



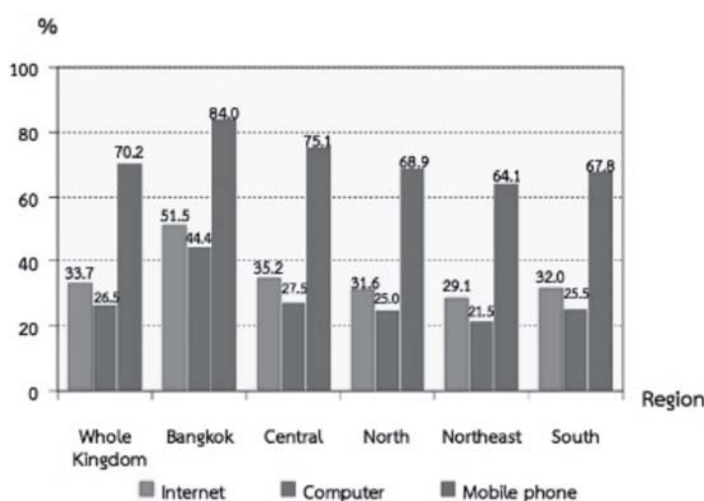
Source: [http://media.i24news.tv/upload/cache/medium\\_image/upload/image/afp-9b14ccdd1e943c2beb7dc872fae4e03eaf244d5e.jpg](http://media.i24news.tv/upload/cache/medium_image/upload/image/afp-9b14ccdd1e943c2beb7dc872fae4e03eaf244d5e.jpg)

## Appendix 4: Thailand's Internet and Telecommunications Outlook as of May 2014

THAILAND		Land area (km2): 514000				Currency: Baht				Year Ending 30.09		
Indicators	Unit	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
DEMOGRAPHY, ECONOMY												
Population	10 <sup>6</sup>	65'087	65'559	65'884	66'077	66'185	66'277	66'402	66'576	66'785	67'011	
Households	10 <sup>6</sup>	18'394	18'905	19'048	18'790	18'917	19'023	19'128	19'238	19'341	19'406	
Gross domestic product (GDP)	10 <sup>9</sup>	6'503	7'103	7'850	8'530	9'075	9'042	10'105	10'539	11'375	...	
Average annual exchange rate per US\$		40.22	40.22	37.88	34.52	33.31	34.29	31.69	30.49	31.08	...	
FIXED TELEPHONE NETWORK												
Fixed-telephone subscriptions	10 <sup>4</sup>	6'812	7'035	7'072	7'024	7'394	7'205	6'835	6'661	6'377	6'058	
Fixed-telephone subscriptions per 100 inhabitants		10.47	10.73	10.73	10.63	11.17	10.87	10.29	10.01	9.55	9.04	
- Residential fixed-telephone subscriptions	%	67.15	67.69	67.36	67.93	51.86	51.37	34.60	33.50	32.20	...	
- Fixed-telephone subscriptions in urban areas	%	50.34 <sup>1</sup>	50.31 <sup>1</sup>	50.01 <sup>1</sup>	49.91 <sup>1</sup>	...	...	50.90 <sup>2</sup>	52.90 <sup>2</sup>	52.80 <sup>2</sup>	...	
VoIP subscriptions	10 <sup>4</sup>	...	...	...	...	...	...	...	...	...	...	
Public payphones	10 <sup>4</sup>	331	364	365	326	...	...	...	...	...	...	
MOBILE CELLULAR NETWORKS												
Mobile-cellular telephone subscriptions	10 <sup>6</sup>	26'966	30'460	40'125	52'974	61'837	65'952	71'726	77'449	85'012	92'463	
Mobile-cellular subscriptions per 100 inhabitants		41.43	46.46	60.90	80.17	93.43	99.51	108.02	116.33	127.29	137.98	
- Mobile-cellular telephone subscriptions, prepaid	10 <sup>6</sup>	22'754	26'037	34'921	47'490	55'356	58'901	64'470	69'511	75'230	...	
Mobile population coverage	%	...	25.89	30.92	37.77	...	...	...	100.00	...	...	
INTERNET												
Fixed (wired) Internet subscriptions	10 <sup>4</sup>	...	...	...	1'298	...	...	3'679	4'271	5'765	...	
International Internet bandwidth, in Mbit/s		3'006	6'808	9'909	22'073	55'095	104'595	190'256 <sup>3</sup>	362'984	471'639	724'708	
International Internet bandwidth (bps) per user		433	691	876	1'668	4'574	7'851	12'791	23'034	26'690	37'370	
FIXED (WIRED) BROADBAND BY TECHNOLOGY												
Fixed (wired)-broadband subscriptions	10 <sup>4</sup>	165	355	894	1'293	2'073	2'624	3'232	3'822	4'352	4'926	
Fixed (wired)-broadband subscriptions per 100 inhab.	%	0.25	0.85	1.36	1.96	3.13	3.96	4.90	5.74	6.52	7.35	
- Cable modem Internet subscriptions	10 <sup>4</sup>	...	...	...	...	...	...	...	110	207	...	
- DSL Internet subscriptions	10 <sup>4</sup>	...	...	...	...	...	...	3'165	3'685	5'027	...	
- Fibre-to-the-home/building Internet subscriptions	10 <sup>4</sup>	...	...	...	...	...	...	-	2	10	...	
WIRELESS BROADBAND												
Total wireless broadband subscriptions	10 <sup>4</sup>	...	...	...	...	...	...	...	748	7'328	35'157	
Satellite Internet subscriptions	10 <sup>4</sup>	...	...	...	...	...	...	...	...	...	...	
Terrestrial fixed wireless subscriptions	10 <sup>4</sup>	...	...	...	...	...	...	...	...	...	...	
Mobile-broadband subscriptions	10 <sup>4</sup>	...	...	...	...	...	...	...	700	7'249	35'040	
- Standard mobile-broadband subscriptions	10 <sup>4</sup>	...	...	...	...	...	...	...	...	...	...	
- Dedicated mobile-broadband subscriptions	10 <sup>4</sup>	...	...	...	...	...	...	...	...	...	...	
Mobile-broadband subscriptions per 100 inhabitants	%	...	...	...	...	...	...	...	1.05	10.85	52.29	
Wireless broadband subscriptions per 100 inhabitants	%	...	...	...	...	...	...	...	1.12	10.97	52.46	

Source: World Telecommunication Indicators 2014, International Telecommunication Union

## Appendix 5: Percentage of Thai Population Using ICT by Region



Source: National Statistical Office; 2012

## Appendix 6: Population Using the Internet by Age Group

Year	Age group (year)				
	6-14	15-24	25-34	35-49	50year+
2008	23.6	44.6	19.3	10.3	3.4
2009	29.0	47.3	21.5	11.9	4.0
2010	35.9	50.0	24.6	13.6	4.2
2011	38.3	51.9	26.6	14.3	5.5
2012	46.5	54.8	29.7	17.1	6.2

Source: National Statistical Office; 2012

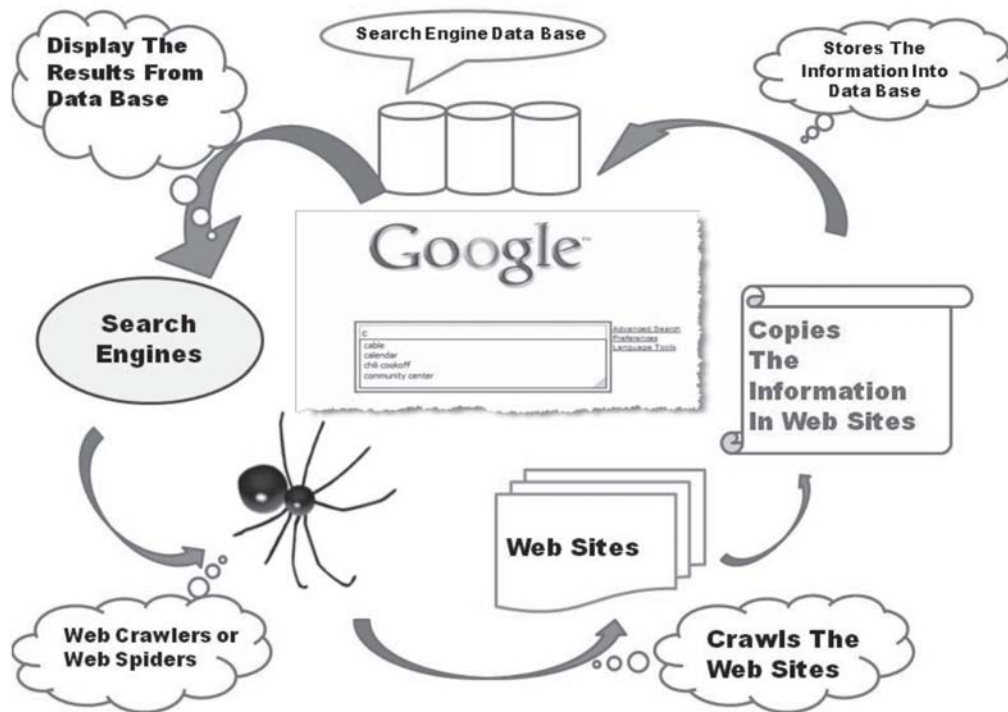
## Appendix 7: Top Ten Websites in Thailand

- Google Thailand
- Google
- Facebook
- YouTube
- Dealfish.co.th
- Blogspot.com
- Pantip.com
- Yahoo
- Wikipedia
- Windows Live



Source: Alexa, September; 2013

## Appendix 8: How Search Engines (e.g., Google) Work



Source: <http://www.outoftheblue.net/blog/wp-content/uploads/2014/01/search1.jpg>

## Appendix 9: Social Media/Social Networks



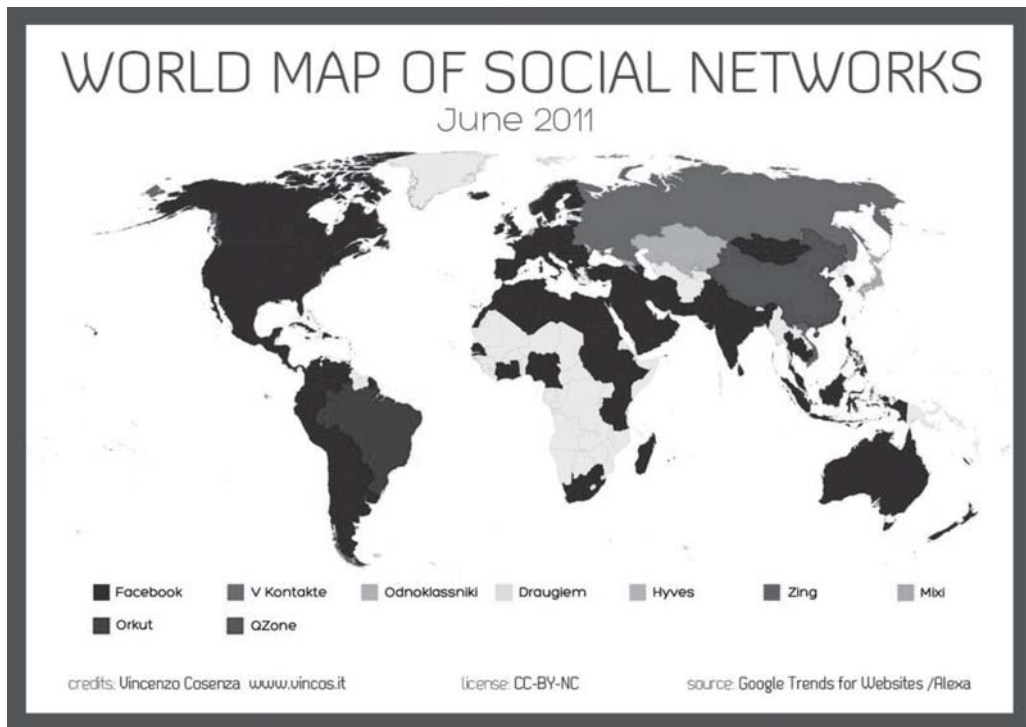
Source: [http://socialmarketing.blogs.com/r\\_craig\\_lefebvres\\_social/social\\_media/](http://socialmarketing.blogs.com/r_craig_lefebvres_social/social_media/)

## Appendix 10: Timeline of the Development of Social Networks



Source: <http://www.businessproductivity.com/wp-content/uploads/2011/10/Social-Network-Timeline-1997-2011.jpg>

## Appendix 11: World Map of Social Media



Source: <http://tendancecom.com/wp-content/uploads/2011/08/cartedesmediassociauxmonde.jpg>

## Appendix 12: Total Number of Social Network Users in Thailand

### Social Networks Population in Thailand 2013



18.5 Million



18 Million

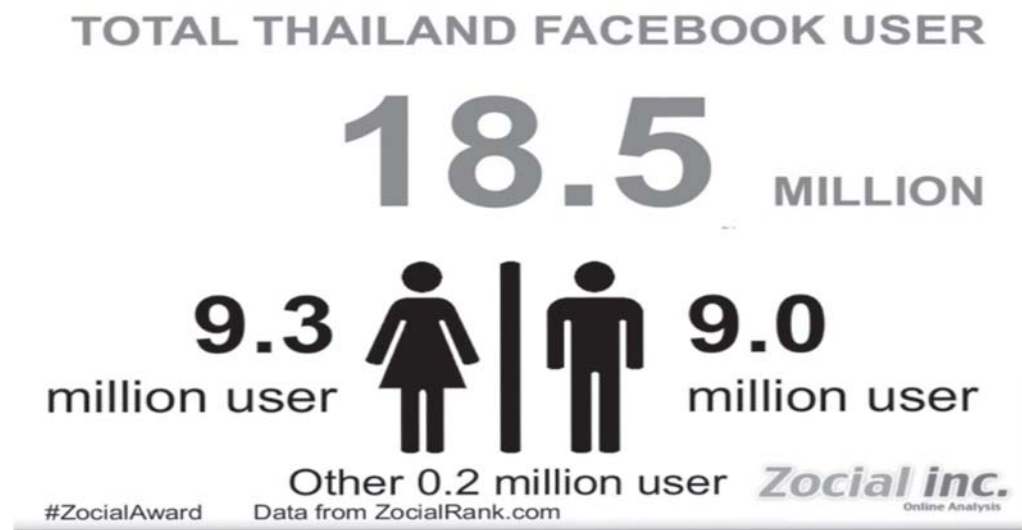


2 Million



5.3 Million  
Videos

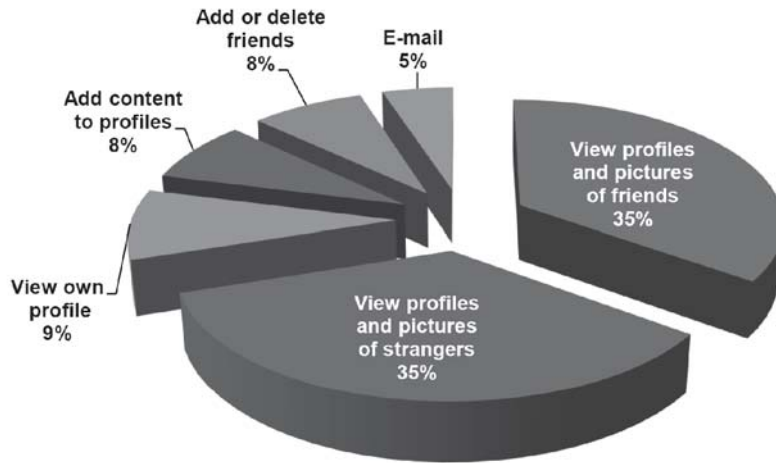
Source: ZocialRank.com



Source: [http://cdn.technasia.com/wp-content/uploads/2013/05/Thailand\\_social\\_media\\_2013\\_infographic\\_\\_03.jpg?17bc4c](http://cdn.technasia.com/wp-content/uploads/2013/05/Thailand_social_media_2013_infographic__03.jpg?17bc4c)



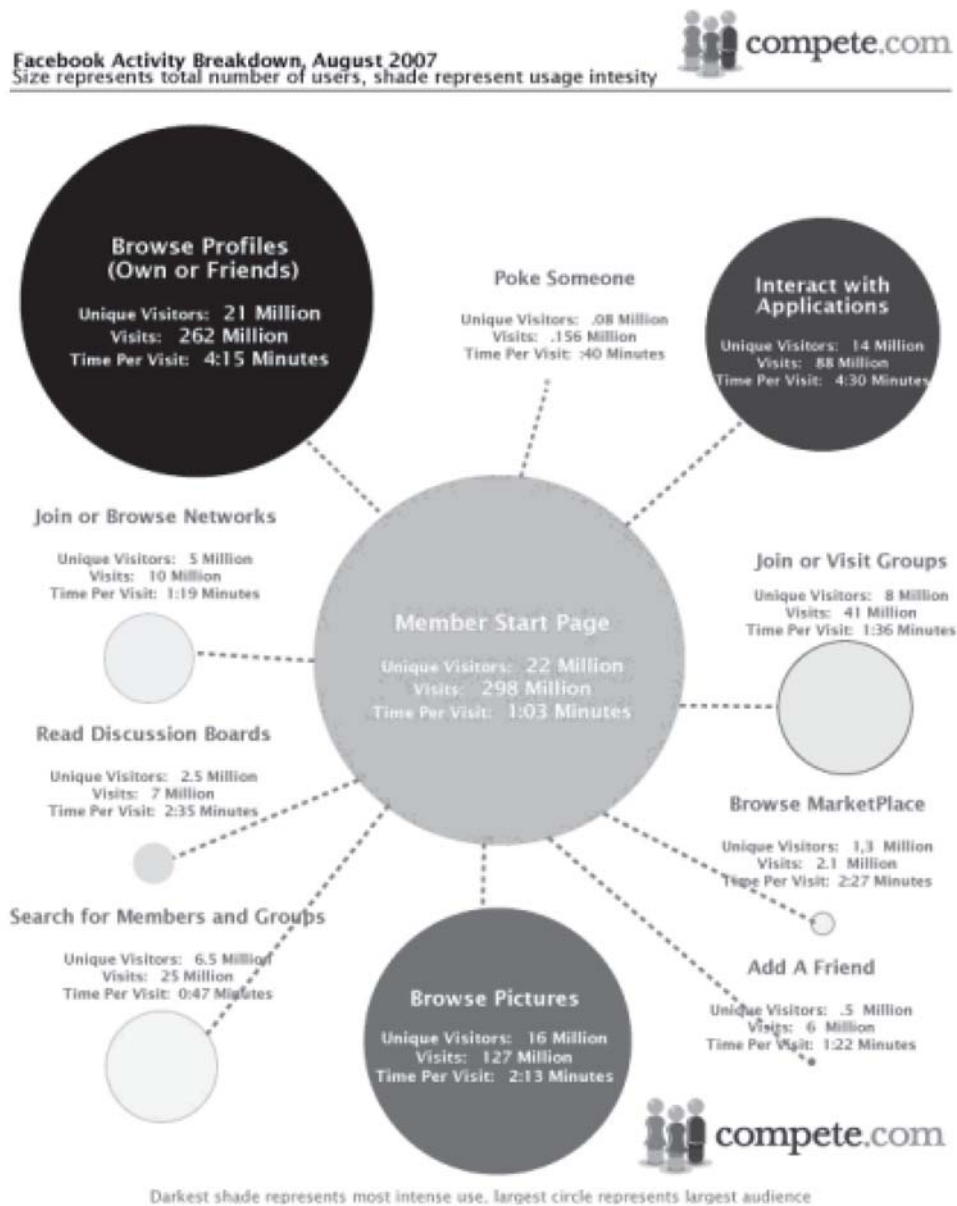
## Appendix 13: What People Do on Social Networks



Source: Piskorski, Mikolaj Jan. "Networks as Covers: Evidence from an online social network, Working Paper, Harvard Business School, 2013.



## Appendix 14: Breakdown of Activity on Facebook



Source: Piskorski, M.J., et al. (2011). Facebook. Boston, USA., Harvard Business School.

## References

- Thailand, B.O. *Thailand at a Glance*. 2010 [cited 2011 December 15<sup>th</sup>]; Available from: [http://www.bot.or.th/English/EconomicConditions/Thai/genecon/Pages/Thailand\\_Glance.aspx](http://www.bot.or.th/English/EconomicConditions/Thai/genecon/Pages/Thailand_Glance.aspx)
- Wikipedia. *2013–14 Thai political crisis*. 2014 [cited 2014 September 11<sup>th</sup>]; Available from: [http://en.wikipedia.org/wiki/2013%E2%80%9314\\_Thai\\_political\\_crisis](http://en.wikipedia.org/wiki/2013%E2%80%9314_Thai_political_crisis)
- 3BBC. *Thailand court ousts PM Yingluck Shinawatra*. 2014 [cited 2014 May 25<sup>th</sup>]; Available from: <http://www.bbc.com/news/world-asia-27292633>

## Endnotes

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- <sup>1</sup> <http://www.google.com/insidesearch/howsearchworks/crawling-indexing.html>