

## Asian Government Usage of Web 2.0 Social Media

The rise of Web 2.0 social sites, such as Facebook, Twitter and YouTube has brought significant changes and opportunities for both online consumers and governments. These tools have changed the ways Internet users communicate with each other and their governments, and allow for greater social participation. The number of worldwide users is growing significantly and their expectations for more services are rising. However, this has not translated into Asian governments totally encompassing the implementation functions and services using these tools. This research investigates the level of government participation of 50 Asian governments of three social media sites. The results show that a minority of Asian governments (approximately 30 percent) are using Web 2.0 tools for communication and information dissemination. The study found that if social sites were utilised, most governments used them for a) information dissemination on official government channels, b) education and c) tourism. The implications are that governments are missing opportunities to better serve their citizens and reach the growing number of Internet users. Instead of avoiding these new technologies, governments should develop an overall strategic plan for all agency levels to participate in social networks, and develop a coordinated effort to develop and implement the tools.



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“ Only 30 percent of Asian governments take full use of Web 2.0 social media technology to communicate and disseminate information to constituents, leading to missed opportunities to better serve their constituents ”

# 1. Introduction

The growth of the Web 2.0 technologies has led to an explosion of social networking media sites, including Facebook, Twitter and YouTube. Although Web 2.0 includes other tools such as blogs and wikis, this paper will concentrate on the use of social tools. These have attracted millions of users worldwide, and offer a wide variety of methods that users can connect to others and share common interests. According to Kes-Erkul and Erkul (2009) Web 2.0 tools, such as social media have the capacity to change the relationship between the Internet and its users, and can change power structures and increase the opportunity for users to engage in greater community participation.

This development has led to a greater interest in how governments can use tools and sites to reach a variety of users with diverse goals. Freeman and Loo (2009) claim that these technologies can be leveraged to transform the way governments provide online information and services, as well as interact with constituents and stakeholders. Romsdahl (2005) argues that more participation of government policy-making via the Internet could help revitalise dialogue between citizens and governments and promote greater participation by disenfranchised citizens and groups as they use these technologies to educate others about political issues in their communities. According to Danis et al. (2009), local governments can use social media sites to procure and position resources and local knowledge, monitor and resolve problems and engage their constituents in an atmosphere of cooperation. Cole (2009) indicates that social media can be powerful tools governments can deploy to help rejuvenate civic engagement.

Although recent news articles show how governments may exploit networking sites for emergencies and information dissemination, scholarly research-based literature is sparse regarding governmental services in Asian countries. With the rise of consumers using media sites, some governments have started to use the sites to reach the Internet audience, but there appears to be little consistent organised effort. This research paper studies the use of social media usage among 50 Asian countries. There were two major aims addressed in this study:

1. What is the level of Asian government usage of three social media sites: Twitter, Facebook and YouTube?
2. If governments utilise the sites, what are the major purposes for its usage?

This paper is divided into several sections. Firstly, a literature review discusses the rise of social sites, government usage of social media, and issues with these services. Next, the research methodology is explained followed by a discussion of the resulting data. The study found that approximately 30 percent of Asian governments have some presence on these media sites. It should be further noted that almost one third of governments attempt to censor their citizens access to these sites. Finally, the implications of governments exploiting social sites are reviewed. The main consequence of the findings would imply that governments are missing service opportunities to connect with their citizens and others for effective communication and marketing. Governments should consider an organised approach to utilising these sites.

## 2. Literature Review

### 2.1 Rise of Social Sites and Web 2.0 Tools

A discussion of social networking sites should be prefaced by a review of Web 2.0 tools. These are a platform on which innovative technologies and applications where participants can be content

creators to leverage collective intelligence of user groups, thus turning the web into a kind of global brain, (Cormode and Krishnamurthy, 2008 and O'Reilly, 2007). This is different from Web 1.0 where users were usually fed information with little bi-direction communication. Examples of Web 2.0 tools include: web content management systems, wikis, blogs, image and video sharing (e.g., YouTube, (e.g., MySpace, Facebook), news sharing and ranking (Digg, Reddit), social bookmarking (e.g., delicious) and 3-D virtual worlds (e.g., SecondLife) (Mergel, et. al., 2009). Social networks are one form of Web 2.0 tools, and these only these types will be emphasised within this research.

Growth of social sites has been a worldwide phenomenon. A 2009 Nielsen report states that two-thirds of the global online population visit social sites and this sector now accounts for almost 10 percent of all internet time (Nielsen, 2009). In 2008, the use of social networks grew 35 percent in Europe, and 56 percent of the online European population visited these sites, with the current market of 41.7 million users (Europa, 2009). Asian social site have also seen a dramatic increase in users with over 450 million users (31 percent of the world's social media population) engaging with social media (OgilvyInsight, 2008). Latin American social users amounted to approximately 53.2 million in 2008 (comScore, 2008). Sites such as Facebook, Twitter and YouTube dominate the global market, but there are also a plethora of new networks that cater to specific geographical audiences. The importance of social sites has grown due to the advantages to both individuals and other entities. For individuals, these sites offer the opportunity to better network with others all over the world and organise their social life. According to Europa (2009), other groups, such as governments and businesses can benefit from social networks by serving different audiences with minimal financial effort.

Facebook is one of the largest Web 2.0 tools, and has over 350 million active users in 180 countries, with over 70 percent of these users outside the U.S. (Facebook Press Room, 2009). According to search engine optimisation consulting firm Beyondlnk (2009), although North America is Facebook's largest market, the Asian/Pacific region holds a sizable number of users at 7.1 percent in 2007. It has experienced a tremendous growth in some Asian countries such as India, with a 42 percent growth (768,020 unique visitors) between February and December 2008, Malaysia with a 66 percent growth (492,100 visitors), and Israel experiencing a 42 percent growth (606,740 visitors). One of its strengths in the growth in international markets is that it is increasing the site's relevance to local markets and implementing local language interface translation (LiveMint.com, 2008). Facebook's value has been estimated at USD \$15 billion and has become a target of investors with Microsoft purchasing a 1.6 percent stake in the firm (Galeotti and Goyal, 2009).

Twitter is a real-time messaging service that, like Facebook and other social sites, has encountered a tremendous growth in users over the past several years. Twitter's market has exploded 3,700 percent in 2009 (Cole, 2009). Just in the month of March, 2009, the number of worldwide visitors to Twitter's site increased 95 percent over the prior month, and was 19.1 million globally, with 9.3 million in the U.S. Twitter has been especially prominent during natural disaster situations when people and organisations use the service for updated communications. Nielsen Company reports that during the 2010 earthquake in Haiti, Twitter served as a major hub of information, and many aid and relief organisations began to use Twitter to spread the word and gather donations, augmenting their other channels (Leberecht, 2010).

YouTube was established in 2005 and has become the most successful Internet site providing video sharing services, ranking second in overall website traffic (Xu, et al. 2008). The authors indicate that along with this success come problems with scalability, as the site is often perceived as 'slow' with downloading clips. YouTube allows users to generate their own content and easily upload video clips to the site, and share them with other users throughout the world. Although the study by Xu showed preponderance for music (22.9 percent) and entertainment (17.8 percent) videos, there are a variety

of other categories. News and politics (4.4 percent), people and blogs (7.5 percent) and travel and places (2.2 percent) are all types of videos that would especially appeal to governmental use.

## 2.2 Government Usage

Freeman and Loo (2009) suggest there are three categories of benefits that governments can achieve from using Web 2.0 technologies: efficiency, user convenience and citizen involvement. Cresswell (as cited by Freeman and Loo, 2009) explains efficiency is gained by obtaining increased output with lower resources. Social sites could bring this about by allowing governments to use pre-established Web services to reach their constituents rather than governments setting up their own social sites themselves, thus saving money and resources. Cresswell defines user convenience as users being able to enjoy round-the-clock access and saving travel costs. Web 2.0 social media allows this convenience and users throughout the world can retrieve information from these sites. Finally, Cresswell mentions citizen involvement as providing greater participation in the democratic process of government.

Crook et al. (2008) lists four ways that Web 2.0 social networks can have an impact on users including: a) inquiry, b) literacies, c) collaboration and e) publication. Inquiry methods allow users to conduct new ways to research. By surfing social sites, people could research specific information on a variety of topics. The 'literacies' impact implies that through experience with the written word users can improve their communications skills, and thus be more productive members of society and their employers. More collaboration allows individuals to engage in a variety of support such as online governmental debate or participating in learning communities. Publication allows users to easily create and publish their own material and post it on sites. Governments find that it is relatively easy to build videos or other media and post these informational works to social sites.

Web 2.0 technologies can be used in a variety of government settings. Specific ministries and entities could use blogs to communicate on public hearings, wikis and RSS feeds to coordinate work, and wikis to internally share expertise and intelligence information (Mergel, et. al., 2009). Although there are a variety of Web 2.0 tools, the aim of this study is to concentrate on the aspects and opportunities of social networking tools. Governments have used social sites to reach constituents during elections or times of crisis. In the U.S. as part of the 2006 national election, Facebook created entries for all US congressional and gubernatorial candidates, and users could express their support of candidates. This level of support had a significant effect on the final vote shares, especially for open-seat candidates (Williams and Gulati, 2007). A news article by Cheung (2007) reports on Hong Kong politicians using Facebook to reach the election audience. Governments have successfully used Web 2.0 social media to keep members of the public informed in the case of natural disasters. Sutton et al. (2007) reports that during the October 2007 Southern California wildfires, local governments used social sites and other backchannel communications to update the community about the situation and to more effectively manage disaster response.

Galeotti and Goyal (2009) argue that social interaction in this social networking setting is a factor that entities should consider when setting strategies on using this media. They indicate that a minority of the population can shape the attitudes and behaviors of the majority of the population. Thus, governments could use these social sites to reach these key influential individuals, who may be disposed to change the opinions of others, leading towards the conforming with government's way of thinking. Cole (2009) defines a new buzzword of 'crowd sourcing' which recognises that useful ideas are not confined to elected leaders or experts. Social media can allow a more democratic society in allowing useful contributions by people at all levels of society.

## 2.3 Social Media Issues

Although Web 2.0 media may have the ability to transform governments and augment the citizens' ability to interact for more effective forms of eDemocracy, there are issues to consider with this technology. Government censorship of these sites could prevent denizens from fully using these sites. There is a wide range of censorship techniques and levels of censorship, ranging from total censorship of all sites to those entities that practice selective or sporadic filtering. Over three dozen countries practice some form of censorship (Diebert, et al. 2007, p. 2).

Thailand is a government that practices limited censorship depending upon the situation. In April 2007, the Ministry of Information and Communications blocked YouTube, stating that the site contained video clips that were offensive to the Thai monarchy. In the eyes of the authority, defamation of the King and family is taboo and politically sensitive (Siriuyvasak, 2007). China is another government which practices censorship of social networking sites as well as other specific Internet services. For example, research firm Beyondlnk (2009) explains that although Facebook in China has 500,000 members, they are faced with censorship restrictions enforced by the Chinese government and the site is often blocked.

A second issue with government use of social media is the issue of fairness. According to Romsdahl (2005), the Web 2.0 poses challenges with fair and equal involvement for all participants. There could be problems raised by the digital divide, the segregation between those citizens who have access to computers and the internet compared to poorer people or those with limited access. Another issue raised by Romsdahl (2005) is lack of quality or inappropriate information posted to these sites. The author suggested additional moderation of these sites to help minimise this specific problem. Cole (2009) raises the concern that users of social media may have problems differentiating between fact and opinion. He cites a study that found that 96 percent of Internet participants only follow blogs they believe in. This self-selection of information could lead to inability to assess the credibility of information, and opinion is passed off as fact.

Lack of sustainability of social systems is another concern for these sites; they must be maintained for future viability. Danis et al, (2009) indicates that governments need to maintain an effort to continuity maintain the information on the sites in order to ensure the information is correct and up-to-date. The concern is that once information goes on a site, or the government creates a series of pages or social channel, the government may find funding is depleted or interest in that topic wanes, thus resulting in a site that soon ceases to be of value to users. At this point, users may cease using it.

Privacy and security of personal data has become a hot-button with Internet surfers, who read daily news reports of attackers gaining confidential information and breaking into supposedly 'secured' Web sites and systems. Gross and Acquisti (cited by Boyd and Ellison, 2007) outlines potential threats to privacy such as the ability for attackers to reconstruct user's social security number using information often found in profiles, such as hometown and date of birth. The Human Capital Institute (2010) lists security restrictions and government fears about the loss of confidential information as one of the most important barriers to the future use of social networking tools. Not only is privacy and security an issue in the virtual world, but using social sites can lead to physical security issues for users in countries where governments have a dim view of electronic participation by its citizens. Baumann (2009) quotes problems with Twitter and Facebook users in Iran, where being caught using these sites can pose physical dangers for protesters or dissidents.

### 3. Methodology

The research was accomplished through completing an analysis of 50 Asian government utilisation of three social networking sites. The project consisted of three phases:

1. Choose governments and social networking sites
2. Count occurrences
3. Analyse the results

#### 3.1 Chose sites

The first phase of this study was to choose a list of governments to review, followed by selecting three social networking sites. For this research, it was decided to concentrate on the governments of 50 countries located within Asia. The reasoning for this was that there are a wide variety of countries in Asia with diverse governmental policies on Internet and social media usage, such as censorship. Also, there is diversity among the percentage of citizens in each country who would normally use these sites.

Next, several social networking sites had to be chosen. These needed to be sites that had global popularity as opposed to only be used primarily within one country. The sites chosen had to attract a variety of Internet surfers and had to contain a variety of different functions, such as bulletin boards, blogs, video capability and other communication. Three of the most popular global networking sites selected for this study were: a) Twitter, b) Facebook and c) YouTube.

#### 3.2 Count occurrences

Two methods were deployed to determine if an Asian government used one of the social networking sites. First, a Google search was performed on each of the governments using three keywords: a) the nation's name, b) the term 'government' and c) the social web site. So, for example, to perform a Google search on Singapore information about Twitter, the search terms would be 'Singapore, government, Twitter.' In this case, the result of the search was a direct link to the Singapore national government's Twitter site, [twitter.com/singaporegovt](https://twitter.com/singaporegovt). For each of the nations, and social sites, a Google search was performed. If a direct link was listed in the search, this counted as an occurrence.

It should be noted that for this approach, possible links results each had to be individually reviewed to determine if the link was a valid government use of the site, versus merely a news link. For example, a search of 'Israel government Twitter' brought up a possible link that may have been a government use on YouTube, [www.youtube.com/watch?v=D79mnMT3CqE](http://www.youtube.com/watch?v=D79mnMT3CqE). However, when viewing this link, it was merely a news video on the Israeli government's use of Twitter and YouTube, and was not a government-related use of these social sites. Thus, it was important that the researcher individually visited each link on the top 10 Google pages to ensure that the link was related to a government-sponsored use of that social site. It should also be noted that in certain circumstances, links to news articles about a government did give information about that government's use of a site like Twitter. Thus, the link or information within that article could be used for further research into finding a specific government link within a site like Twitter.

The second search involved a direct review of each of the three social sites for government usage. For example, for Facebook, a search was performed for the terms 'Afghanistan government.' In this search, over 1,400 results originally came up. The researcher manually reviewed the top 200 results to review if there was a specific area created by the Afghani government. In this case, one of the results was an official site of the Afghani Embassy, which created a cultural site for treasures of the National Museum. However, in order to find this specific site, it was necessary to review a large number of other sites that although they may have come up within a search of 'Afghanistan government', they were merely areas created by individuals relating to a topic about Afghanistan, but not directly sanctioned and created by the Afghan national government. Thus, if any government-created site was found on any of the three social sites, it was counted as the government having an official presence on that Web site. It should be noted that the use of the term 'official' when dealing with the government's presence indicates that at least one ministry or entity did use the social network.

Besides counting the occurrences of government usage, this study also included a list of which countries practice censorship. This information was gleaned from the Diebert study of global Internet censorship (Diebert, et al. p. 6).

## 4. Analysis of Results

Table 1 shows the usage pattern of three social networking sites for 50 Asian governments. The first column shows 50 countries in Asia. The next three columns indicate whether that specific government has a presence (y) or not (n) on Twitter, Facebook or YouTube. The last column designates whether that government performs some type of Internet censorship of these sites. The results shown indicate that at least one government entity or ministry for that country did utilise the network.

Results show that most governments are not fully utilising social networking sites to reach their citizens and other potential users. Nineteen of 50 governments (38 percent) use Twitter, 52 percent have a presence on Facebook and 34 percent use YouTube. It should also be noted that 34 percent of governments have some form of censorship of these social engineering sites.

Table 1. Social Networking Usage Results

	Twitter	Facebook	YouTube	Censors
Afghanistan	n	n	n	n
Armenia	n	n	n	y
Azerbaijan	n	n	n	y
Bahrain	y	n	n	y
Bangladesh	n	y	n	y
Bhutan	n	n	n	y
Brunei	n	y	y	n
Cambodia	n	y	y	n
China	n	n	n	y
Cyprus	n	n	n	n
Georgia	y	y	n	n
Hong Kong	y	y	y	n
India	y	y	y	n
Indonesia	y	n	n	y
Iran	n	n	n	y
Iraq	y	y	y	n
Israel	y	y	y	n
Japan	n	y	n	n
Jordan	y	y	y	n
Kazakhstan	y	y	n	n
N. Korea	n	y	n	y
S. Korea	y	y	y	y
Kuwait	n	y	n	n
Kyrgyzstan	n	n	n	n
Laos	n	n	n	n
Lebanon	n	y	n	n
Macau	y	y	y	n
Malaysia	y	y	n	n
Maldives	n	y	n	n
Mongolia	n	n	n	n
Myanmar	n	n	n	y
Nepal	n	y	n	n
Oman	y	n	n	n
Pakistan	y	n	y	y
Palestinian Terr.	n	n	y	n
Philippines	y	y	y	n
Qatar	y	y	y	n
Saudi Arabia	y	y	y	n
Singapore	y	y	y	n
Sri Lanka	y	y	y	n
Syria	n	n	n	y
Tajikistan	n	n	n	n
Thailand	n	y	n	y
Timor-Leste	n	n	n	n
Turkey	n	n	n	n
Turkmenistan	n	n	n	y
UAE	n	y	n	y
Uzbekistan	n	n	n	y
Vietnam	n	n	n	y
Yemen	n	n	n	y
<b>Totals</b>	<b>19 (38%)</b>	<b>26 (52%)</b>	<b>16 (34%)</b>	<b>17 (34%)</b>

It is an interesting point that even governments that censor use of some of these sites for their own citizens may still have an official presence on these sites. For example, Thailand censors social sites which defame the monarchy, yet it does have a presence on Facebook where they sponsor an academic scholar program (Thai Government, 2009). In February 2008, Pakistan blocked YouTube for several hours because of a video on the site that the government found offensive (Hayes, 2008). Yet, the research here shows that the Pakistani government uses this exact site, and the Pakistani Army has its own channel on YouTube (PakArmyChannel, 2009). Dubai, part of the United Arab Emirates, has the head of government with his own interactive internet site and a Facebook profile. Yet, the Ministry of Information and Culture censors the internet in an effort to curb access to undesirable material including pornography, gambling, issues related to democracy and human rights violations (Davidson, 2009).

Government entities or ministries use these sites for a variety of purposes, and the main results for this research are shown in Figure 2. Each instance where a government entity used a site was compiled, and the results were assembled into four main categories: a) official government channels, b) tourism/development, c) academic/education and d) other. For all pages where government pages were found, 46 percent were for national government information or specific individual ministers who created their own informational page. Cambodia, Georgia, Iraq, North Korea, South Korea, Maldives, Nepal and United Arab Emirates have all set up official government pages.

The second most popular use was for tourism and development (27 percent). This included pages for tourism ministries, international economic and business development. For example, Hong Kong, Israel and Macau set up tourism ministry pages. Academic and education pages comprised 11 percent of the total. Some governments use social media for educational purposes, such as educating their constituents on a variety of topics relevant to that country. India's and Kuwait's governments have set up site on Twitter to help prevent fatal road accidents, and the government of Afghanistan has set up an area for its National Museum. The other pages (16 percent) included diverse ministries including the armies of Bangladesh and Pakistan and Japanese Rail Service.

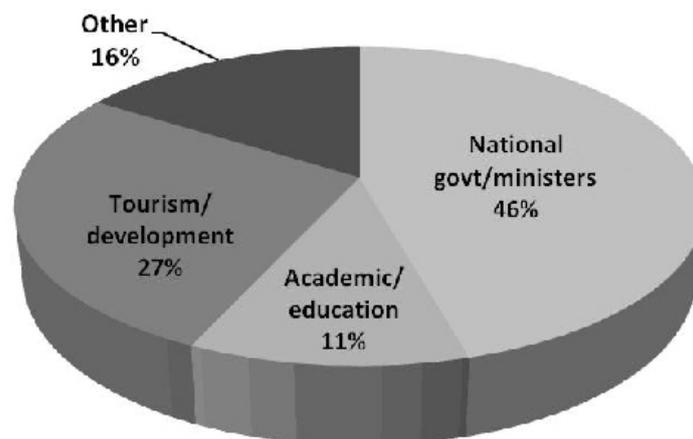


Figure 2. Percentage of Pages for Government Ministries

## 5. Implications

This study shows that a minority of Asian governments are effectively using Web 2.0 social media to reach Internet users. These sites can provide a plethora of functions and opportunities for governments. However, with limited resources and funding, governments need to develop a strategic plan for the most effective use in order to reach their audience. Asian governments use social sites for a variety of reasons, however, most do not appear to have a concentrated national strategy onto their intended uses. In most cases where media was used, governments maintained a presence for information dissemination, education or tourism. Instead, it is often shown in the results that some specific ministries may take part, but no country has a full-blown strategy that encompasses a comprehensive list of all government agencies.

While this study focused on national government usage of social media, future studies could analyse how local or municipal governments exploit this technology, and if there is a significant difference between the two. Local governments may have a different perspective on native issues and services, and could easily develop their own implementation strategies for social media use. Gopakumar (cited by Danis, et al, 2009) argues that local people can play a critical role in the success of how municipal governments provide specific services, and that governments should develop trust of these citizens by disseminating local data on health, education and agriculture.

Aitoro (2009) suggests that governments make a concerned effort to ensure that users feel empowered when using these sites, especially the government employees who may be tasked with setting up services on social media. It is suggested that leaders not only tolerate efforts to use the sites, but reward employees who use innovative methods to better serve the constituents. Governments can't be afraid of small failures when some site functions may not be effective, and should look towards the long-term strategic value of how this technology could be used to share and communicate with the citizens and others. Aitoro (2009) further mentions that agencies should recruit employees who have the business and technical expertise to effectively implement the functions of social media.

There are a variety of other factors that governments should consider when effectively implementing a Web 2.0 networking strategy. Kes-Erkul and Erkul (2009) maintain that governments should create feedback mechanisms, which show their constituents that the views are being taken seriously. It is imperative that site users are have input into what functions the government will implement as well as be involved in constant maintenance to the growth. Human Capital Institute (2009) suggests that information about current successful uses of tools on these sites be widely disseminated to encourage government leaders to buy-in to increase in these services. They could emphasise increased communication between various functional groups and government entities.

## 6. Conclusion

This research shows that a preponderance of Asian governments (70 percent) do not use Web 2.0 social media sites to reach their Internet audience. Those that do use the tools tend to concentrate on disseminating information, education and tourism services. This usage tendency is opposite the use of Web 2.0 tools in developed nations, where research has shown a much higher usage rate. With the rise in their citizens using Web 2.0 tools and various social media, governments are not taking advantage of effective methods to communicate and disseminate information to their constituents and other users, such as potential tourists. There is also a lack of strategic direction in governmental approach to services that are implemented. In order to provide a better level of service and reach a greater number of users, government agencies should alter their management attitudes towards

using Web 2.0 social tools and institute creative methods and policies to better use these valuable tools.

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