Trends in the Uses of the Internet – 2006

Won Kim

Abstract

During the past few years, activities related to the Internet have substantially regained grounds lost following the Internet bust. The uses of the Internet have become solidly grounded in numerous areas of our daily lives. However, troubling uses of the Internet persist and have even become diversified. In this article, I will give a broad overview of the notable trends in the uses of the Internet.

1   INTRODUCTION

The Internet has now become an integral part of the daily lives of a sizable portion of the people of the entire world. People depend on the Internet to search for information of all types, use it as a primary means of communication with others for personal and official purposes, and conduct commerce activities. The current realization of the potential of the Internet is the result of technological advances on many fronts and the relatively low cost of accessing the Internet. The relevant technological advances include search engines, Web technology, broadband networks, wireless communications, the global positioning system, cell phones and other types of hand-held devices, liquid crystal displays, flash memory, digital cameras, multimedia compression and decompression, etc. The relatively low cost of accessing the Internet includes the free of charge accessibility to most of the Web, the affordability of Internet services, and the affordability of Internet-enabled handheld electronic gadgets. The technological advances and affordable access to the Internet have made it possible to realize the potential of the space and time-transcending attributes of the Internet that technologists pointed to during the period of Internet bubble. These attributes are "virtual" centralized repository of all types of information, continuous updates to the information, and ability for anyone to access it at any time from anywhere.

To be sure the Internet has made life more convenient, productive, or enjoyable for many. However, it has also brought out the bad side in many people and has caused trouble for many other people. In the following sections, I will first summarize the notable trends, and then the troubling trends.

2   NOTABLE TRENDS

There are various notable trends that have emerged during the past few years regarding the uses of the Internet.

First, online commerce is blossoming [Barbaro 2005]. Online commerce has now become an integral part of conventional businesses, and an ever increasing array of items is being sold online by both conventional businesses and "pure" online merchants. Giant retailers have all added online components to their business. Corporations of all types have home pages not only for marketing purposes but also to receive and process orders. Although the entry of the established corporations into online commerce has narrowed room for new pure online players, there is still unbounded opportunity for those with good imagination and ability to execute. Why, there is even a site for home sale by owners (FsboMadison.com) [Bailey 2006], a site for luxury items (Net-a-Porter.com) [Horyn 2005], and a site for selling downloads of recorded readings of books, magazines and newspapers (Audible.com) [Pogue 2005]. Even greetings-card sites (Hallmark.com, AmericanGreetings.com, JacquielLawson.com) are seeing resurgence and showing profits [Tedeschi 2006].

Second, the Internet is becoming the aggregated source of a rich variety of contents, not just information in plain text, and delivering such contents is becoming a huge business. Many Web sites now hold photographs, images, maps, music, recordings of book and magazine readings, audio, video clips, TV programs, and even movies. Companies, such as Yahoo, Google, Microsoft and Apple Computers, are now broadening their business to include content aggregation and delivery. They are also forming alliances with traditional media companies, such as television networks, cable television companies, record labels, etc. that possess rich libraries of contents to sell such contents [Hansell 2005]. For example, Apple now sells episodes of some ABC television network's programs on iPods, and NBC and CBS television networks plan to sell reruns of their top new shows through video-on-demand services of DirecTv and Comcast, respectively. Warner Brothers is preparing an advertising-supported free Internet service, called In2TV, to let people watch more than 100 old television series (more than 4,800 episodes in 2007). America Online will distribute the service through its Web portal.

Third, the Internet has become a huge virtual billboard for advertisements. This is the inevitable consequence of the fact that the Internet has become a virtual gathering place for a huge number of people from all over the world 24x7. In the offline world, ads are just about everywhere there are a large number of eyeballs – television programs, newspapers, magazines, inside subway trains, sports stadiums, Times Square in New York City, etc. Ads are displayed next to the search results from search engines. Ads flash and pop-up on all corners of the Web pages of information or content providers such as digital newspapers. Even social networking sites and some of the personal blogs now carry ads. Of course, the home pages of all corporations are to a large extent advertisements. Although online ads, with the exception of the corporate home pages (which people seek out to get information), are no less irritating than offline ads, it is a key reason that the Internet is being widely used. The advertising revenue makes it possible for search engine companies to sustain their operations and upgrade search capabilities; newspaper companies, media companies, etc. to continue to provide
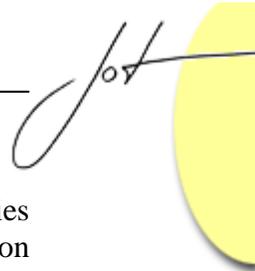
contents, usually free of charge. One major revenue source for search engine companies such as Google and Yahoo is the fees they collect from advertisers when people click on the ads the advertisers place next to the search results. As advertisers compete for the prime position on the list of ads, they are often forced to bid, and end up paying some $50 to $100 per click. Even a small business ends up paying $10-20,000 a month on online ads. The cost of online ads can significantly eat into the profit margins for the advertisers, and may become a new barrier of entry for small online merchants. Also many blog writers have signed up for Google's AdSense program and joined affiliate networks, such as Shareasale, Commission Junction and LinkShare, to profit from ads they place on their blogs [Story 2005].

Fourth, online social networking is flourishing. Many social networking sites have sprung up and attracted large numbers of participants. People have created personal home pages on such sites, post blogs for anyone interested to visit and read, exchange photos and information, etc. People seek out others with common interests for online socializing, seek and offer information and advice, open themselves up and express their inner thoughts, etc. on these social networking sites. MySpace.com is perhaps the largest social network with 27 million members largely in their 20s [Williams 2005]. Members maintain their home pages there, decorated with intimate snapshots and blogs with all sorts of commentaries, all linked to their friends' home pages. The number of pages viewed monthly there rivals that for Google. This caused the News Corporation to acquire the site's parent company for $580 million.

Fifth, Internet mega-businesses have established themselves and serve as an important part of the infrastructure for supporting the wide uses of the Internet. During the early days of the Internet and e-commerce, highly talked-about companies, such as Yahoo, Amazon, Google, Priceline, etc. in the US all lost money, and in the face of the Internet bust, it was not even clear if any of these would survive. Today, however, Yahoo, Google, and Microsoft's MSN is three giants that provide search engines for the world. Amazon and eBay are major marketplaces. Expedia, Orbitz, and Hotel are representative major online travel agents. Monster and HotJobs are where jobs are posted and found. America Online, EarthLink, along with such cable service providers as Comcast and Time Warner, and numerous local Internet service providers provide Internet access services in the US. These corporations together support key elements in the Internet infrastructure beyond the backbone owned by the telephone companies and cable companies.

Sixth, the Internet is beginning to come under the control of governments and the laws. This may upset the Internet "purists" who believe that the Internet should be free of everything –free of charge, free of taxation, free of control by the government, free of censorship, free of identity exposure, etc. However, as the Internet is clearly becoming a major communications vehicle and information source, much of the laws and standards that already govern the telecommunications, broadcast, and media industries come into play rather naturally. Google, Yahoo and Microsoft have recently agreed to censorship demands by the Chinese government [Barboza 2006][Barboza and Zeller 2006]. MSN shut down a blog written by a Chinese that the Chinese government found unacceptable;
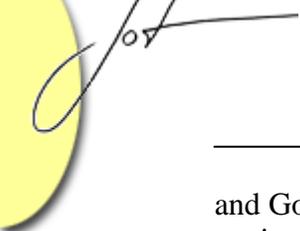
and Google has decided to exclude email and blogs from the Chinese version of its search engine; Google has agreed to exclude from search results certain contents to which the Chinese government objects. Even in the US, all search engine companies, and Internet service providers turn over emails, Internet domain-related information, and Web access data to government law enforcement agencies, the courts, and even lawyers when compelled for a variety of purposes, including criminal cases and civil litigation [Hansell 2006][AP 2006]. Further, lawsuits, most notably by the US record labels against free file-sharing sites such as Napster, Grokster, Kazaa, etc.; the US anti-spam law, prosecution of some of the master spammers, online fraudsters, authors of viruses and worms, hackers, those who defame others online, etc. have started to tame the dark and wild side of the Internet.

3 NEGATIVES

Unfortunately, the convenience and seeming anonymity of the Internet have brought out the bad side from many people, and their activities have harmed many other people. This dark side of the Internet persists and, as the uses of the Internet become more widespread, has even spawned new twists.

First, the Internet scourge -- spam, spyware, viruses/worms, pop-up ads that come with hidden Web access monitoring software --persists. Spam, viruses/worms, and spyware have been tempered to some extent through laws, prosecution, and detection technologies. However, they remain a major problem. Today spam mails outnumber regular mails by about 6:1. The costs of spam-filtering, spyware detecting, virus/worm detecting/cleaning software are borne by individual Internet users and/or the Internet service providers (and ultimately all Internet users). The false hit by spam-filtering software also often blocks legitimate emails and even entire email domains. People are now becoming smarter about not opening virus-containing files attached to emails. They are also more vigilant about frequently applying anti-virus and OS security patches. These are of course all costs that people should not have to bear.

Second, online frauds, such as phishing and e-commerce frauds, are on the rise, and some new and creative forms of fraud have started to emerge. In order to boost the ratings on hotel-recommendation sites, some hotels offer incentives to guests to enter favorable ratings on those sites. Some businesses have employees click on competitors' online ads next to Google or Yahoo search results, so that the competitors would incur needless expenses.

Third, certain businesses that are regarded as unsavory or even illegal offline are firmly taking root. Online pornography is already a huge industry, and online gambling is showing signs of becoming a big business. Even major US investment firms, such as Merrill Lynch, Fidelity Management, Morgan Stanley, and Goldman Sachs have invested a combined total of over $750 million in online gambling sites such as SportingBet and BetOnSports, operating outside the shores of the United States, in order to circumvent the US gambling laws [Ritchell 2005].

Fourth, a minority is often overwhelming the silent majority by being organized, active, and vociferous online. They often wield undue influence on the outcomes of
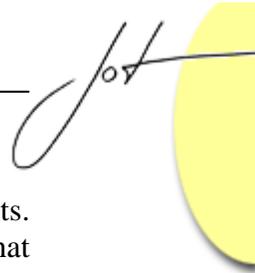
elections, directions of a nation, and policies of businesses, institutions, and governments. This is not to say that their opinions are necessarily wrong. The problem is that businesses, institutions and governments, faced with vociferous, and sometimes even abusive, opinions, may take actions that may not properly reflect most people's opinions. Businesses and governments sometimes even hire people to post online messages in order to tilt the public opinion to certain pre-defined directions.

Fifth, the dark and wild side of the Internet, in addition to the scourge and frauds mentioned above, persists. It includes the publishing of defamatory remarks, unfounded rumors and outright white lies; abusive language; disseminating private or confidential information, proprietary intellectual properties online, etc. Many people also use the Internet to recruit people into suicide partnership, prostitution, child pornography, and various forms of scam.

4 CONCLUDING REMARKS

Although the dark and wild side of the Internet substantially remains to be tamed, the blossoming of the Internet is unquestioned with an unfathomable and exciting future ahead. I close with some musings below.

The widening uses of the Internet are starting to cause unforeseen expenses in people's daily lives. The cost of Internet services, anti-spam and anti-virus software are already a part of life. Now people are starting to pay for contents otherwise available for free, such as some free TV and radio programs, and newspaper articles.

The Internet has made it possible for numerous people to set up online shops and conduct business. The low barrier of entry that the Internet affords has changed the business landscape. However, it is beginning to be tested by the rising cost of online ads.

During the past several years, people have rather enthusiastically adopted new releases of electronic gadgets armed with an ever-increasing array of major new functions and new features. Some of the new functions and features are now leading people to fill idle time with entertainment on the small screens of the small electronic gadgets, such as listening to music or radio programs or recordings of book or magazine readings, watching video clips or photographs or TV programs, or playing games. It is not clear whether it is a good thing for people not to have any idle or down time. This may be the factor that will limit the growth of the gadgets, along with the user interface challenges.

REFERENCES

[AP 2006] The Associated Press. "U.S. Seeks Google Records in Pornography Inquiry," The New York Times, Jan. 19, 2006.

[Bailey 2006] Jeff Bailey. "Owners' Web Gives Realtors Run for Money," The New York Times, Jan. 3, 2006.

[Barbaro 2005] Michael Barbaro. "Internet Sales Show Big Gains Over Holidays," The New York Times, Dec. 30, 2005.

[Barboza 2006] David Barboza. "Version of Google in China Won't Offer E-Mail or Blogs," The New York Times, Jan. 25, 2006.

[Barboza and Zeller 2006] David Barboza and Tom Zeller. "Microsoft Shuts Blog's Site After Complaints by Beijing," The New York Times, January 6, 2006.

[Hansell 2005] Saul Hansell. "Internet Service to Put Classic TV on Home Computer," The New York Times, Nov. 14, 2005.

[Hansell 2006] Saul Hansell. "Increasingly, Internet's Data Trail Leads to Court," The New York Times, Feb. 4, 2006.

[Horyn 2005] Cathy Horyn. "Point, Click and Strut," The New York Times, Dec. 15, 2005.

[Pogue 2005] David Pogue. "A Marriage of Bookshelf and Phone," The New York Times, Oct. 13, 2005.

[Ritchell 2005] Matt Ritchell. "Wall St. Bets on Gambling on the Web," The New York Times, Dec. 25, 2005.

[Story 2005] Louise Story. "As Corporate Ad Money Flows Their Way, Bloggers Risk Their Rebel Reputation," The New York Times, Nov. 26, 2005.

[Tedeschi 2006] Bob Tedeschi. "The Resurgence of E-Cards," The New York Times, Jan. 30, 2006.

[Williams 2005] Alex Williams. "Do You MySpace?," The New York Times, Aug. 28, 2005.

About the Author

Won Kim is Senior Advisor at Samsung Electronics, Korea. He is Editor-in-Chief of ACM Transactions on Internet Technology (www.acm.org/toit). He is Global General Chair of the Human.Society@Internet International Conference. He is the recipient of the ACM 2001 Distinguished Services Award, and is an ACM Fellow.