



# Social Technology Trends and Applications (Summary)

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#### **SUMMARY**

Social technologies are proliferating around the wired globe. They have become an important part of the industry with the advent of companies such as Facebook and Twitter. Fundamentally, we are talking about a change in the way the internet functions and how people interact.

The sheer speed at which these technologies develop – and how fragmented the development may be – these technologies are already affecting consumer behaviour and organizations in ways never seen before. The implications of social networking are dealing with all levels of management, leadership and work patterns. The question for the military remains, what does it mean for the military? The young net generation are learning new ways of interacting with new social technologies, skills that may have military applications. They are using powerful consumer-based mobile technologies to access services and information on the cloud in real-time. This gives them an advantage in the way how they gather, process, analyse and feed forward information. The presentation will discuss these possibilities through various examples and applications.

#### 1 SOCIAL TECHNOLOGY TRENDS 2012

Online social networks have emerged as dominant platforms on how consumers spend time online. Facebook surpassed Google and Yahoo as a leading platform already in late 2010 and has continued to dominate time online (16% in Q3 2011 compared to 2% in Q1 2008 for U.S. consumers) (Citi Investment Research and Analysis 2011).

32.7% of world's population (2.27 billion people) are online and roughly 1/3 of those are registered users on Facebook. According to their latest statistics from December 2011, Facebook had 845 million monthly active users, out of which 50% access the service through a mobile device.

Despite rapid growth Facebook still remains a mainly western phenomenon. For example China (Qzone, 480 million registered users and Renren, 160 million users), Russia (Vkontakte 111 million users), India (Orkut), Brazil (Orkut), South Korea (Cyworld, 24 million users) and Japan (Mixi, 24 million users) have their own local dominant platforms giving Facebook a run for their money. As people connect with each other, language and aforementioned technology barriers limit the possibilities for social networking.

There are also differences in the way social networks generate the revenue for their host companies. Facebook for example relies mostly on advertising (85% of total revenue) and strategic deals with gaming companies such as Zynga (12% of total revenue), while Tencent (the company behind China's Qzone) has successfully driven a strategy mainly based on virtual goods instead of advertising.

## 1.1 Empowering Consumer Devices

Usage of social technologies and online social networks through mobile devices will be significant in the future. Morgan Stanley (2010) predicts that mobile will surpass desktop computing by 2013. Of all continents Africa will have more people with mobile access than with electricity by 2015 (AfricaCom DailyNews 2010).

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## **Social Technology Trends and Applications**



Tablet computers such as the iPad are opening new possibilities for mobile computing. Apple is expected to sell 55 million iPads in 2012 (Sherne Agee & Leach 2012). With a bigger screen there are certain applications that will drive usage in completely new ways not possible before on a phone or a desktop device. As a comparison, Apple Appstore for the iPhone has 550 million apps and the Appstore for the iPad has 140 million apps. Yet around 30% of all iOS revenue comes from the iPad apps. Average revenue per user (ARPU) can be two to three times higher on an iPad than it is on an iPhone. Downloads on an iPad grew 200% in 2011 compared to 70% on the iPhone. (App Annie 2012)

It is worth noting that the empowerment of consumers will not be driven by the physical devices alone but the applications these devices enable. Each end-user will tailor the device to their own contextual needs through downloadable and HTML5 based applications.

Consumer devices will challenge dedicated, proprietary and high-cost devices currently used in the public and private sector. According to various reports, the U.S. Military has already deployed iPads, iPods and iPhones for use in the military setting and on the battlefield. Various other countries within the military are also researching the possibilities of using consumer devices (and consumer services) to replace expensive and limited equipment and solutions. Consumer mobile devices are a disruptive force. A comparison can be made with consumer PCs, that surpassed mainframe computers in the past driving a number companies out of business betting on the wrong horse. However, security still remains a concern with consumer devices.

## 1.2 Convergence of Social & Spatial

Specialized location-based services such as Foursquare, Twitter and Facebook Places are gaining significant traction on the consumer mobile side. The main driver has been the rapid proliferation of the latest generation of consumer smart phones such as the iPhone and various google Android devices sold in conjunction with flat rate mobile internet subscriptions. In addition to GPS these devices have accelerometers and other sensory technologies to enable the development of next generation location-based services for outdoor and indoor positioning, context-based services and mobile social networking.

The social web will become more context-aware and glocal (global but local at the same time), enabling completely new services to emerge.

Location-based services rise questions regarding privacy, as have been shown in various case examples on how easily people can be tracked by criminals, law-enforcement and stalkers alike. A good example would be a service that displays who is not likely to be home at a given time, available for anyone based on public information. Many consumers are unaware of the implications of openly sharing their location data, yet some of them do it as a trade-off for convenience, promotions, serendipity of accidental encounters and ease of use.

Users can also be tracked over various social networks. Services like Banjo connect a number of social networks together around location. It provides local area-based social networking across multiple social networks and has the ability to alert friends nearby, even those who are not registered in the service itself.

## 1.3 Real-Time Web

Another important trend to consider is to understand that the web has become much more real-time compared to the early days of the internet consisting of "pages" with "last updated" timestamps. Breaking news can be followed in real-time on services such as Twitter. Various social networking sites deploy real-time user interfaces notifying the user of latest updates as they happen. Some services such as Twitscoop update the news interface automatically as you look at it. Day-to-day message exchange becomes real-time and has no significant delays.

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As we look into the present tense and link information from the past in large datasets (so called big data), we also enable the capability to predict and almost see the future. Search engines for the predicted future such as the Recorded Future (funded by Google and CIA) enable users to ask questions such as what companies would expand to India in 2015 based on past news articles.

People already share their current status updates on services such as Facebook. Next they will share their intentions, on what they are going to do next, enabling the prediction of intentions and desires as consumers increasingly reveal data about themselves.

# 1.4 Internet of Things

The next evolutionary step after mobile would be the inclusion of everyday objects on the internet. Consumer home appliances such as washing machines, coffeemakers, alarm systems and fridges are already internet-enabled. The technology is already here, it is only a question of time when you can Google your shoes. As the famous quote from Xerox Chief Scientist Mark Weiser goes, "the most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it".

# 1.5 Cloud Learning Environments

The aforementioned capabilities open doors for completely new working and learning environments for consumers, businesses, government agencies and the military to emerge. One of the developments will be the abandonment of standardized IT environments in favour of accepting the presence of the so-called shadow IT (consumers using their own devices to conduct day-to-day business). This has already happened at companies like IBM who utilize internal and external social networks, cloud computing and internal mashups to build applications that utilize data from individuals, projects, departments and organizations. The consumer devices will drive this trend and the objective of the IT is to conduct proper risk management in the context of cloud and consumer devices and services.

A cloud learning environment is a working and learning environment that can be tailored to individual contextual needs, is based on applications residing on the cloud, has advanced sensory and geo-location capabilities and is mobile. A mobile cloud-based environment will empower individuals to conduct their knowledge working activities at a wholly new level.

# 1.6 Digital Generation

The so called net generation (people who have grown up with technology) will drive new practices within space by being first in developing new skills and usage patterns around social technologies. The transition is much deeper than we suppose, affecting not just the way how consumers interact with brands and how they share with their friends, but on the way how effective organizations function today.

## 2 AUTHOR

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