

Social Media Availability and Performance

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Social Networks are Becoming a Fabric of Our Society

Social networking is becoming a mainstay of our life. Though it may not seem critical from a business viewpoint, to many individuals it is. Not having access to Facebook or not being able to tweet when we want to can ruin a day.

The availability of social networks and their responsiveness is becoming a factor in the quality of life of our everyday activities. Forrester's research¹ indicates that as of 2010, 59% of all Internet users use social networks; and 70% consume information from social networks. These users are not just teenagers – 70% of active conversationalists are over 30.

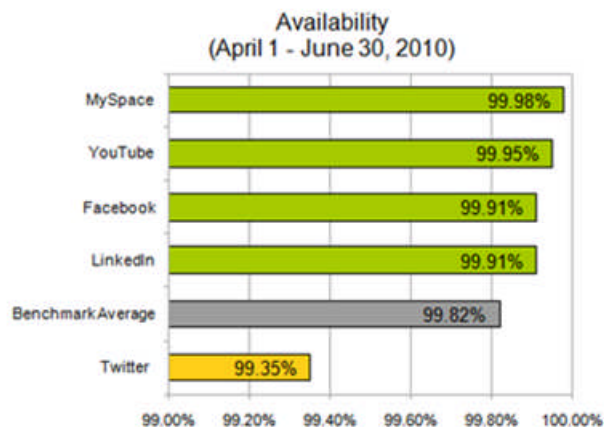
Nielsen² found that people are typically spending five and a half hours per month on social networking sites. By far the leader is Facebook, which accounts for most of this time. MySpace, LinkedIn, and Twitter users average less than an hour per month.

In a study of ten countries, citizens of Italy, Australia, and the United States (in that order) spent over six hours per month networking. At the bottom of the list, surprisingly, was Japan with less than half that time.

Social Network Availability

With its continually increasing importance to society, the availability of social networks is becoming ever more critical. AlertSite is a service that provides monitoring of web sites by periodically sending requests to them. It publishes a special study of social networks, the *Web Performance Index for Social Networks*.³

In a recent report covering Facebook, LinkedIn, Twitter, MySpace, and YouTube, MySpace won the availability



¹ *Social Technographics: Conversationalists get onto the Ladder*, Forrester, January 29, 2010.

<http://forrester.typepad.com/groundswell/2010/01/conversationalists-get-onto-the-ladder.html>

² *Social Networking Use Surges Globally*, Mashable, March 19, 2010.

<http://mashable.com/2010/03/19/global-social-media-usage/>

³ *Facebook is fastest social network in Q2; Twitter drops to last*, AlertSite *Web Performance Index for Social Networks*.

<http://blog.alertsite.com/2010/07/facebook-is-fastest-social-network-in-q2-twitter-drops-to-last/>

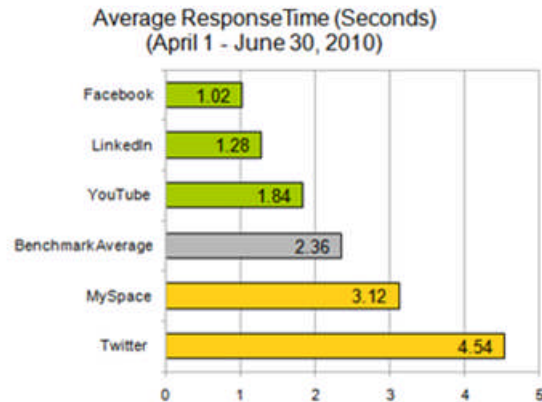
contest hands-down, showing almost four 9s (99.98%) of availability. It had only four failures in 20,450 attempts. YouTube also had excellent availability at 99.95%.

Facebook and LinkedIn were almost an order of magnitude less reliable than MySpace, showing availabilities of about three nines. Twitter came in a distant fifth with an availability of 99.35%.

Social Network Performance

Equally as important as availability is performance. After all, if the response time of a service is too long, it is effectively down.

The same AlertSite study measured the average response time of these social sites. Facebook was by far the fastest with an average response time of a little over a second. LinkedIn and YouTube had response times under two seconds. Though highly available, MySpace's response time was over three seconds. Twitter's response time was almost five seconds.



Twitter's Fail Whales

Twitter's New Data Center

Clearly, Twitter has a ways to go to match its peers in availability and speed. Sightings of Twitter's fail whales, an icon that is displayed when Twitter is down, have become all too common.

Twitter is well aware of this disparity. It had been renting its servers from NTT; but in 2010 it announced plans to move into a new data facility in Salt Lake City, Utah, by the end of the year. However, construction problems forced Twitter to move to a temporary data center in Sacramento, California, instead.

Twitter's Armageddon

Twitter faced probably its biggest challenge – and its biggest failure – during last year's World Cup in mid-2010. Twitter created a special section on its site to highlight the key matches, to promote special tags to show team allegiance, and to offer special new backgrounds with which to decorate profiles. However, it was totally unprepared for the volume of tweets that were generated.

The World Cup was responsible for Twitter's largest period of sustained activity in its history. During the final fifteen minutes of the championship game, more than 2,000 tweets per second were sent. This increased to over 3,000 tweets per second when Spain scored the winning goal. Several outages followed. Twitter's web site was simply overloaded.

AlertSite

AlertSite measures a web site's availability and performance by simulating typical customer interactions on a company's home page. It measures how



long it takes to access the page and records the number of errors encountered in request processing. Monitoring is done from several worldwide locations to obtain an average not affected by geographical location.

Monitoring scripts are created with AlertSite's tool, DéjàClicks. These scripts are then uploaded to AlertSite's global monitoring sites. Scripts simulate typical user clicks, hovers, and other interactions.

Any company can sign up for AlertSite monitoring of its web sites at www.alertsite.com.

Summary

Social networks are becoming a part of our lives. Twitter's experience with the World Cup illustrates the effect that worldwide events can have on social networks. Add to that the recent activity in the Middle East, where demonstrations for democracy have been organized and driven by social networks.

As demand for real-time personal information increases, so do the expectations for availability and performance. Social networks such as Facebook, Twitter, and LinkedIn must scale to meet these demands; and in the future, they must be structured to provide telephone-grade availability.

Acknowledgement

Our thanks to our subscriber Roy Nicholas for pointing us to this topic.