

The Internet and the Demand for News

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ABSTRACT *This paper looks at the demand for Internet news sites before and after September 11. Analyzing information obtained from actual click-stream activity, support is found for the view that the events of September 11 changed the way households used the Internet to obtain information and news. These changes are observed long after September 11.*

Keywords: Internet activity, household behavior, September 11.

Introduction

The tragic events of September 11, 2001 unleashed a voracious demand for news and information. All media channels were busy reporting on the tragedy. These included traditional broadcast, cable news channels, radio, and, for the first time as a serious news channel, the Internet.

On September 11, cable news channels, with their attention on covering breaking news, were clearly beneficiaries of the tragedy. Nielson Media Research reported that over 100 million people, or close to 50% of all TV households, watched at least part of CNN's coverage the day of the attacks.¹ A typical share for CNN is 10%. Broadcast television and radio ratings were also high.² These numbers underscore the fact that traditional communications media were clearly the channels of choice for most households.

Not everyone was satisfied with these channels. The demand for news and information on September 11 also spilled over to the Internet. For the first time, the Internet was viewed as an alternative channel for obtaining in-depth news and information. Anecdotal evidence suggests that the Internet quickly became overwhelmed and that millions of users were left without access or reasonable connections. The data, however, suggest that once the initial surge of Internet activity was digested, the Internet played an increasingly important role in providing access to information and news.

The Internet proved to be very adaptive in supporting the demand for news and information. Immediately after the attack, community websites, discussion groups, alternative news sites, mailing lists and reference sites 'lit up' the Web. According

to one analyst, the Web did not fall apart: 'Under the radar, the Net responded magnificently; it was just a matter of knowing where to look'.³

This paper examines the household demand for Internet news sites and provides more than anecdotal evidence of the importance of the Internet as a channel. The data used in this study was obtained from tracking Internet activity of over 500,000 households. The information was obtained from Plurimus, a company that specialized in monitoring and measuring Internet traffic.⁴ The very large volume of transactions in the database provided the basis for estimating total household demand with a great deal of precision.

An Overwhelmed Internet

By mid-morning on September 11, it was almost impossible to log onto any major news site. For some, the Internet failed. These users were unable to access well known news sites. This was perhaps the first time the Internet had failed to deliver on this scale.⁵ For example, between the hours of 9 and 10 am on September 11, MSNBC.com experienced almost a 500% increase in traffic. CNN.com experienced almost a 450% increase in traffic. Needless to say, the network sites and their servers were not prepared for surges of that magnitude. On Tuesday alone, according to a study commissioned by The Pew Foundation, 29% of Internet users—or more than 30 million people—sought news online.⁶ That is one-third greater than the normal news-seeking population on a typical day online. Yahoo, Google, and other portals and search engines reported huge surges in activity.⁷ For many users, initial attempts to access the Internet were often thwarted. On Tuesday morning a large number of users could not even access news sites. Those who could log on were met with very slow response times. Indeed, the initial congestion caused by the surge in traffic brought most portals down to a crawl. The Internet search engine Google directed news seekers to radio and television. 'Many online news services are not available, because of extremely high demand', a statement said on the site's home page.⁸

Initial problems regarding access notwithstanding, a more complete review of the data suggests that overall interest in Internet news sites continued to remain high despite early problems due to bottlenecks. This suggests that: (1) Internet news sites were able to adjust their format to relieve a significant portion of their bottleneck by limiting streaming video and large graphics; and (2) the value individuals placed on accessing these sites was greater than the problems associated with gaining access. In a follow-up survey commissioned in December, the Pew researchers found that 'The change in news interest in the post-Sept. 11 period was striking. On average, just 23% of the public paid very close attention to the typical news story before the attacks, which is comparable to yearly averages since 1990. But after the attacks, that number more than doubled, to 48%'.⁹ Prior to September 11, on any given day, approximately 12% of Internet households visited online news sites. On September 11, close to 40% of all Internet households accessed news sites.¹⁰

The premise of this paper is that problems of access notwithstanding, the Internet emerged from September 11 as a mainstream channel for obtaining news. The events of September 11 empowered users to become active participants in the organization, collection and dissemination of news. It appears that these efforts were long lasting. After September 11, a larger percentage of Internet households continued to rely on Internet news sites when compared to pre-September 11 levels.

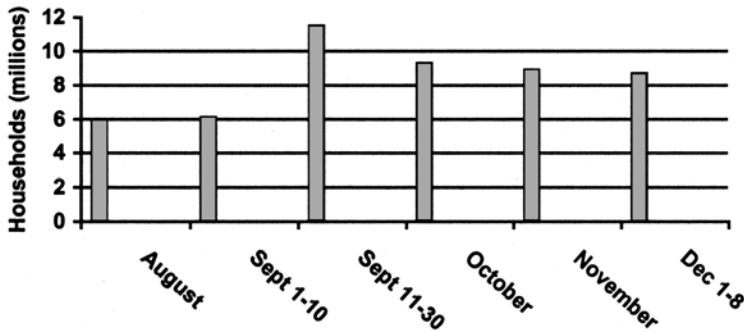


Figure 1. Average number of online visitors to news sites.

Pre-September Baseline

Figure 1 shows the average number of households that made at least one visit to a news site over the period August 2001-mid-December 2001. Figure 1 provides a view of average activity at Internet news sites. Levels of activity rose dramatically in September and, while falling thereafter, nonetheless remain significantly higher than the pre-September levels.

The average for August of 6 million households¹¹ can be considered a base number for before September 11. The average for the period September 11–30 was 11.5 million households, or an increase of 92% over levels before September 11. The averages remained high long after September 11. By mid-December, the average number of households was still over 48% higher than the period before September 11. As suggested by the December Pew survey, a thorough examination of daily activity suggests that those shifts after September 11 were not due to chance. After September 11, the evidence points to an increased demand for Internet news sites. This shift occurred despite the problems accessing sites that many households encountered on September 11.

Figure 2 looks at online visits to news sites over a shorter interval. Figure 2 displays average daily visits to news sites. On September 11, almost 19 million households were successful in accessing a news site. The numbers decline after September 11, but remain close to 100% greater by September 20. Put another way, on September 11, close to 40% of all households with Internet access were visiting news sites.¹²

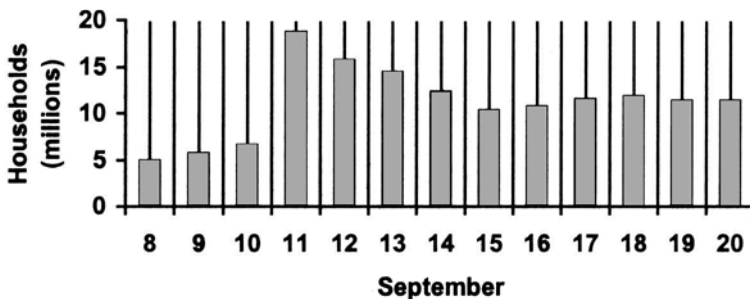


Figure 2. Average daily visits to news sites.

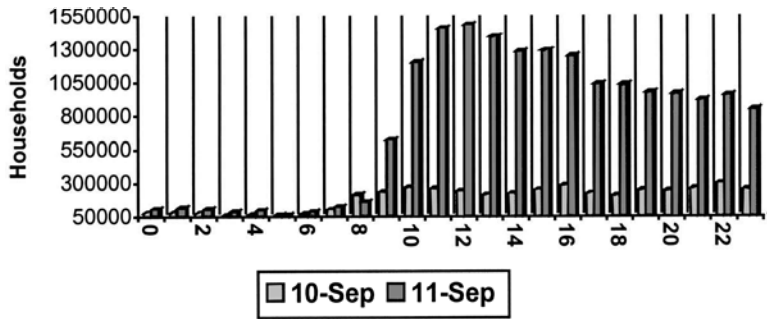


Figure 3. CNN.com hourly traffic.

These numbers further underscore the significant increase in the use of the Internet. The data point to a more intense and immediate focus on news. To be sure, prior to September 11 there were significant news events. However, it appears that no single event prior to September 11 came close to matching the numbers turning to Internet news sites that was observed on September 11. September 11 was clearly a defining event for news sites on the Internet.

Daily Activity

Figure 3 displays the demand for CNN.com by hour of the day for September 10 and September 11. The comparison between the two days illustrates the enormous surges in demand experienced on September 11. On September 10, peak demand reached 300,000 at 11 pm.

A comparison of the hourly traffic illustrates the dramatic surge in CNN.com's traffic. On September 11, traffic surged after 9 am. Bottlenecks and delays occurred. The demand for access remained high throughout September 11. However, the numbers suggest that by mid-afternoon, CNN.com was able to manage its network and accommodate most of its traffic. Within hours, most of the

Table 1. Visitors to selected Internet news sites

	ABC	CBS	CNN	FOXNEWS	MSNBC	NYTIMES	WASH POST	YAHOO
9/7	288,512	98,540	1,147,034	271,984	1,992,256	470,273	328,584	1,145,931
9/8	184,997	72,034	1,039,491	152,712	1,496,945	408,051	232,817	834,665
9/9	207,127	97,738	1,237,364	142,517	1,662,019	475,849	315,734	1,011,322
9/10	258,247	87,346	1,329,792	223,285	2,031,645	533,693	376,072	1,201,107
9/11	1,461,078	679,792	4,822,568	794,059	5,027,384	1,141,144	1,138,586	2,553,101
9/12	1,053,505	536,154	3,898,313	675,597	4,284,271	1,082,916	1,076,979	2,002,495
9/13	853,544	472,732	3,462,922	552,262	4,026,349	1,087,908	874,202	2,108,412
9/14	681,154	332,133	2,795,355	488,314	3,503,299	825,593	901,130	1,896,147
9/15	514,984	274,579	2,364,923	360,612	2,854,317	712,644	680,403	1,833,748
9/16	470,766	269,430	2,506,396	433,384	2,919,849	774,605	590,287	2,043,227
9/17	497,386	255,246	2,529,715	468,671	3,346,584	739,123	724,693	2,049,015

Source: Plurimus.

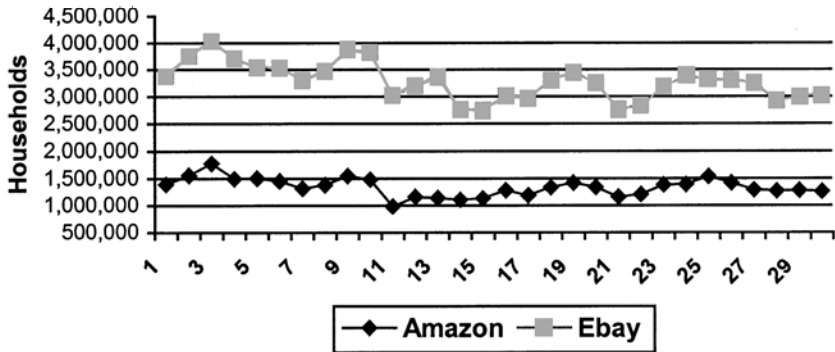


Figure 4. Visits in September, 2001.

major news sites were able to reconfigure their networks and accommodate the increased traffic.

Table 1 displays the traffic for eight Internet news sites. All these sites experienced significant increases in demand. The increased demand peaked on September 11 but maintained higher levels after September 11.

The surge in visits to Internet news sites was not indicative of general Internet activity. Actually, traffic to Amazon and Ebay declined somewhat on September 11 but recovered shortly thereafter (see Figure 4).

Long Term Changes in Activity

One test of the increased role of the Internet as a channel for obtaining news and information is to track changes in Internet activity to news sites for 'significant' national events that occurred after September 11. Figure 5 displays the increase in traffic to CNN.com and MSNBC.com for November 2001 relative to the average daily traffic to those sites prior to September 11. A value of 25 implies that traffic for that day in November was 25% greater than traffic prior to September 11. For both sites, the increase in traffic was noticeable, with November 12 standing out as very significant.

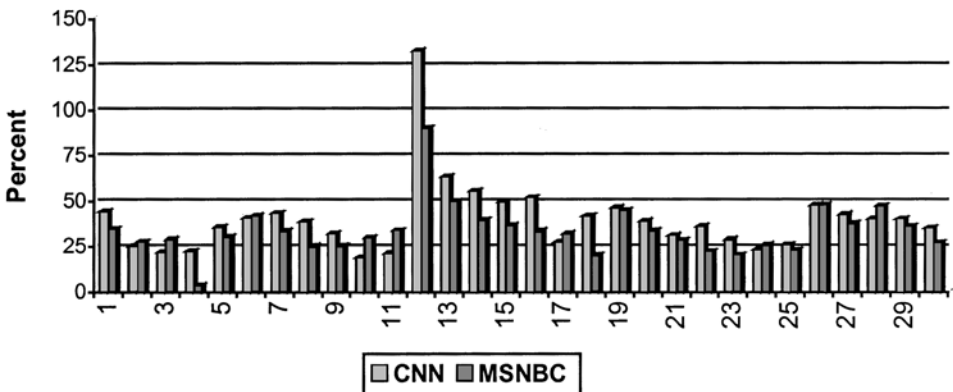


Figure 5. Lift to CNN.com and MSNBC.com in November.

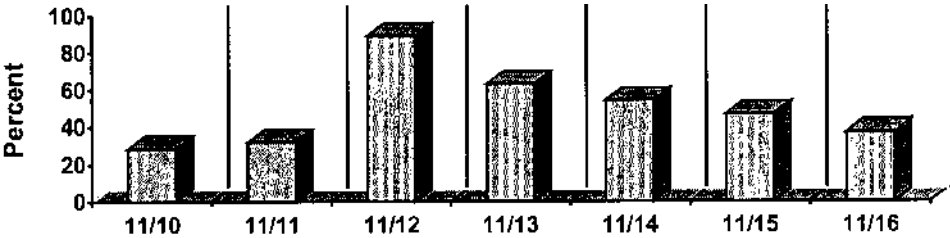


Figure 6. Percentage increase in activity to news sites before and after the crash of AA flight 587.

The November 12 spike in activity coincided with the crash of American Airlines Flight 587. That event generated Internet activity to the major news sites on the order of the activity observed on September 11. This surge in activity suggests that households were quick to use the Internet to learn more about the news. Figure 6 displays the percentage increase in daily traffic to all news sites for the period November 10–16, 2001 relative to the average traffic prior to September 11. Note that Internet activity to news sites was still over 30% greater than pre-September 11 levels just prior to November 12. On November 12, Internet activity to news sites jumped dramatically on news of the crash. Activity levels remained high after November 12, mimicking the pattern of use observed after September 11.

The anthrax scare provides another example of the increased use of Internet news sites after September 11. On October 5 the first victim of Anthrax poisoning dies. On October 8, the news of the anthrax-laced letter to Senator Daschle was reported. During this timeframe, the bombing of Afghanistan was also well under way and very much in the news.¹³ These events were noteworthy and closely followed by households that had Internet access.

The percentage increase in total activity to Internet news sites is displayed in Figure 7.

Discussion

The analysis of household traffic before and after September 11 points to an increased level of interest regarding online news sites after the events of September 11. The Internet had proven capable of providing value for those seeking news,

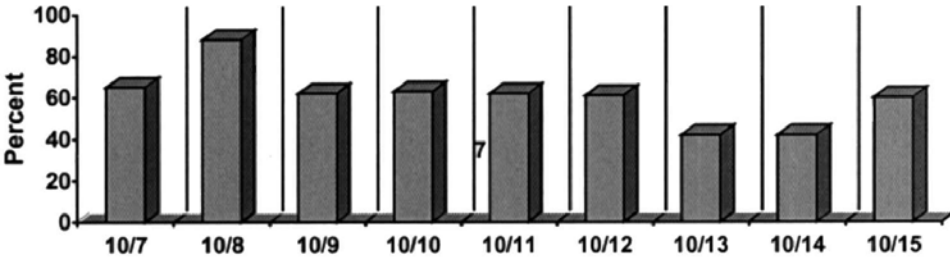


Figure 7. Internet activity in response to the anthrax scare.

commentary and analysis, and information. The major Internet news sites such as CNN.com, MSNBC.com, ABCNEWS.com, and Yahoo.dailynews.com all benefited from this increased reliance on the Internet.

The Internet, however, provided more than access to established news sites. After September 11, the Internet witnessed a period of growth that could only be described as unique. Overnight, thousands of 'September 11' websites emerged to fill the demand for information. The speed and success of this movement suggests that future news events are likely to build upon the platforms created from the September 11 disaster.

For many, the value of the Internet could be measured by the following functions.

- First, information searches could be tailored to meet the specific objectives of the user. This provided users with freedom to explore leads they found interesting and useful. Search results could be book-marked for later review.
- Second, the Internet provided the user with freedom to conduct research at any time. This provided a measure of convenience that was unique to the Internet. Unlike broadcast news, the Internet was not dependent on the scheduling of news reports. Interviews could be played at the convenience of the user.
- Third, news could be easily linked to other sources. The Internet facilitates exploration through hyperlinks.
- Fourth, with the growth of broadband access, video and streaming audio could be played often without bringing the system to a crawl.
- Fifth, Internet news sites provided a wealth of backup information, ranging from in-depth analysis of events to background information about the participants. This last point implies that one could dig as deep as desired without bumping into time or information constraints. Internet news sites were of value because these functions were not available via traditional media.
- The Internet encouraged the creation of multiple communities of interest. These communities helped account for the growth of network externalities, and thus for the value and power of the Internet.

Notes and References

1. http://www.medialifemagazine.com/news2001/sep01/sep17/3_wed/news1wednesday.html.
2. 'Arbitron: radio listening surged during week of September 11'; http://www.gavin.com/news/article.php?art_id=753
3. Leander Kahney in <http://www.wired.com/news/culture/0,1284,46766,00.html>.
4. Plurimus is currently bankrupt, having met the fate of many Internet startups.
5. With the possible exception of the problem associated with the Victoria Secret's streaming video broadcast in 1999, were only 2% of those trying were able to access the site. <http://www.internetweek.com/lead/lead041300-2.htm>
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8. <http://stacks.msnbc.com/local/knsd/nbclmx9nhrc.asp?cp1=1>
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10. National Telecommunications and Information Agency, <http://www.ntia.doc.gov/>, February 5, 2002.
11. The average for August was estimated by adding daily household counts and dividing by 31.
12. NTIA Report, 2002, p. 5.
13. Percentage increase in activity is the level of activity in October relative to pre-September 11 visits.