PROJECT FOR EXCELLENCE IN JOURNALISM

The Latest News Headlines—Your Vote Counts

If someday we have a world without journalists, or at least without editors, what would the news agenda look like? How would citizens make up a front page differently than professional news people?

If a new crop of user-news sites—and measures of user activity on mainstream news sites—are any indication, the news agenda will be more diverse, more transitory, and often draw on a very different and perhaps controversial list of sources , according to a new study.

The report, released by the Project for Excellence in Journalism (PEJ), compared the news agenda of the mainstream media for one week with the news agenda found on a host of user-news sites for the same period.

In a week when the mainstream press was focused on Iraq and the debate over immigration, the three leading user-news sites--Reddit, Digg and Del.icio.us--were more focused on stories like the release of Apple's new iphone and that Nintendo had surpassed Sony in net worth, according to the study.

The report also found subtle differences in three other forms of user-driven content within one site: Yahoo News' Most Recommended, Most Viewed, and Most Emailed.

The question of whether citizens define the news differently than professionals is becoming increasingly relevant. It started with offering visitors a sense of what others found interesting: what news stories were most emailed and most viewed?

Soon, establishment news sites like CBSNews.com allowed users to make their own newscasts. Then, names like Digg, Reddit and Del.icio.us emerged as virtual town squares that became a way to measure the pulse of what the web community finds most newsworthy, most captivating, or just amusing. The trend continues, as even Myspace, the social networking site popular among 20-somethings, has launched a news page (http://news.myspace.com).[1]

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[1] Myspace launched its news page on April 19, 2007.The Project considered including MySpace News in the study but the site is still in Beta form and at the time the study, there was very little user activity.   On average, the top stories received just one vote and some on the home page of the site had no votes whatsoever.

Indeed, these user-driven sites have entered the news business, or perhaps more accurately, they have entered the news *dissemination* business. Reporting is not a part of their charge. Instead, they turn to others for content and then they bestow users with the task of deciding what makes it on the page.

What do individuals do with that power? What kind of events or issues do they choose to highlight? And how does it differ from the news the mainstream press offers?

To find out, PEJ took a snapshot of coverage from the week of June 24 to June 29, 2007, on three sites that offer user-driven news agendas: Digg, Del.icio.us and Reddit. In addition, the Project studied Yahoo News, an outlet that offers an editor-based news page and three different lists of user-ranked news: Most Recommended, Most Viewed, and Most Emailed. These sites were then compared with the news agenda found in the 48 mainstream news outlets contained in PEJ's News Coverage Index.

A total of 644 stories from the three user-driven sites and Yahoo News's three most popular pages were coded for the study and then compared to 1,395 stories from the same time period in PEJ's News Coverage Index. The report first compared the content of the user-sites to that of the mainstream press. Next, it compared the three user-sites to each other. Finally, the study looked at the three user-oriented pages on Yahoo News, comparing them to Yahoo's editor-selected news page, to the other user-sites, and to each other.

Some key findings include:

- The news agenda of the three user-sites that week was markedly different from that of the mainstream press. Many of the stories users selected did not appear anywhere among the top stories in the mainstream media coverage studied. And there was often little in the way of follow-up. Most stories on the user-news sites appeared only once, never to be repeated again in the week we studied.

- The sources user news sites draw on are strikingly different from the mainstream media. Seven in ten stories (70%) on the user sites come either from blogs or Web sites such as YouTube and WebMd that do not focus mostly on news.

- The three user news sites differed from one another in subtle ways. Reddit was the most likely to focus on political events from Washington, such as coverage of Vice President Cheney; Digg was particularly focused on the release of Apple's new iPhone; Del.icio.us had the most fragmented mix of stories and the least overlap with the News Index.

- On Yahoo News--even when picking from a limited list of stories Yahoo editors had already pared down—users' top stories only rarely matched those of the news professionals.

- There were mostly similarities in what people are most likely to email each other versus what they recommend or view on Yahoo News. But there were some differences. Most Recommended stories focused more on "news you can use" such as advice from the World Health Organization to exercise one's legs during long flights; the Most Viewed stories were often breaking news, more sensational in nature, with a heavy dose of crime and celebrity; and the Most Emailed stories were more diverse, with a mix of the practical and the oddball.

- Despite claims that the Web would internationalize consumers' news diets, coverage across the three user-news sites focused more on domestic events and less on news from abroad than the mainstream media that week. Yahoo News, both on its main news page and three most popular pages, meanwhile, stood out for being decidedly more international that week.

In short, the user-news agenda, at least in this one-week snapshot, was more diverse, yet also more fragmented and transitory than that of the mainstream news media. This does not mean necessarily that users disapprove or reject the mainstream news agenda. These user sites may be supplemental for audiences. They may gravitate to them in addition to, rather than instead of, traditional venues. But the agenda they set is nonetheless quite different.

This initial report is based on a limited sample—a one week snapshot—to get a first sense of differences and similarities in user-driven and mainstream media. PEJ intends in a future study to delve further into this area of research.

The Big Picture

Past research by PEJ has found that week-to-week mainstream media tend to focus on a handful of major events that they monitor continuously over the course of a week or a month. Whether it be floods in the Midwest, the death of Anna Nicole Smith or debate over the President's "surge" policy in Iraq, a sizable amount of airtime or space is often spent on just a handful of "big" stories of the week.

The week of June 24 was no different. There were no major breaking events demanding special media attention, but a handful of stories emphasizing political events in Washington and conflicts abroad dominated.

During that week, the immigration debate led the coverage, accounting for 10% of all news stories in the News Coverage Index. That was followed by coverage of a major fire near Lake Tahoe (6%), the failed bombings in the United Kingdom (6%), events on the ground in Iraq (6%), Supreme Court decisions (5%), the 2008 presidential election (4%), flooding in Texas (4%), the policy debate in the capitol over the war in Iraq (4%), U.S. domestic terrorism (3%), and the missing pregnant woman in Ohio (3%). In all, the top ten stories that week accounted for 51% of all the stories in the Index.

In the user-generated sites, these stories were barely visible. Overall, just 5% of the stories captured on these three sites overlapped with the ten most widely-covered stories in the Index (13% for Reddit, 4% for Digg, and 0% for Del.icio.us).

The immigration debate in Congress, the biggest single story of the week in the mainstream media, appeared just once as a top-ten story on Reddit, and not at all on Digg and Del.icio.us. Similarly, the war in Iraq accounted for 10% of all stories in the Index and seven percent in the Yahoo-user material. Across the three user-news sites, it amounted to about 1%.

What were the favorite stories on the user-driven sites? For the most part, there were no dominant ones. The only story with any real traction was the release of the Apple iPhone, and that was just on one site (it accounted for 16% of the stories on Digg that week). Otherwise, users put forth a mix of diverse and unconnected news events from day to day. On the morning of June 26 on Digg, for example, a story about intelligent design topped the list followed by a story about a woman suing record labels for malicious prosecution. But by 5pm that day, both had vanished from the top ten.

Sources

One reason the line up of stories on the user-news sites may be different from the mainstream media is where they are drawn from. About seven in ten (70%) stories on Del.icio.us, Reddit and Digg, originally appeared on blogs and sties that generally offer very little news.

Overall, four in ten (40%) stories originated on blogs. Another sizable share (31%) originated on sites that offer information but were not news, such as YouTube, WebMd or Technorati. A quarter (25%) of stories originated from mainstream news outlets such as the BBC News and Slate. Only a fraction (5%) came from wire stories from Associated Press or Reuters, which make up so much of the content on many of the news aggregators on the Web. About 1% appeared as an original report.

Origin of Stories
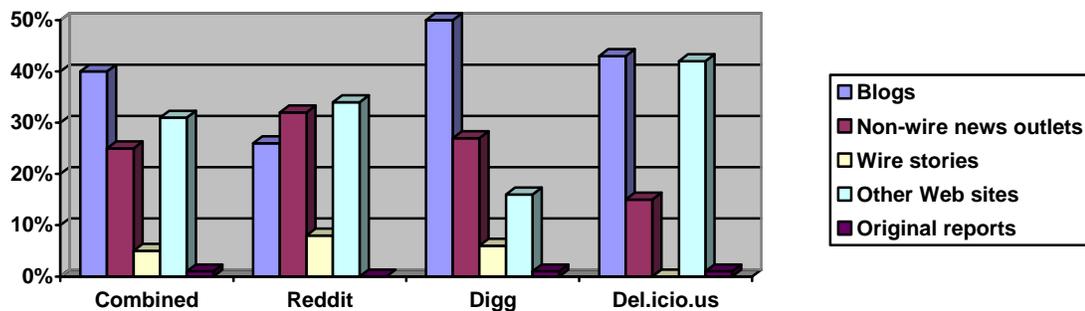
There were some differences during the week in which of these non-traditional forms users drew from on each site. Del.icio.us drew more from blogs and non-news

information sites (e.g. The Guardian). Digg users dug blogs more than any other source. Reddit relied more evenly on blogs, mainstream news outlets (other than wire services) and non-news sites.

Yahoo News, in contrast, was much more likely to draw on mainstream news sources, particularly the news wires, during our study. On Yahoo News's main page, 100% were wire stories. Similarly, nine in ten stories (91%) stories on Yahoo News's three most popular pages also came from the wires, with no less than 85% on each of these pages originating as wire content. The remaining stories (9%), meanwhile, initially appeared on now-wire, news Web sites.

Broad Topic

The best way to get a sense of trend among these sites is to look not at specific news events, but at broad topic areas such as politics, crime, and foreign affairs. Here, some consistency emerges day-to-day, and reveals again a focus quite different from editor-selected news.

Across Del.icio.us, Digg and to a lesser extent Reddit, technology and science stories drove coverage, with technology accounting for most of the coverage in this category.

On both Digg and Del.icio.us, roughly 40% of the stories were devoted to technology and science. They were only about half as common on Reddit (22%), but that was still more than ten times the coverage in the Index that week. There, technology and science stories accounted for just 2% of the stories.

On Digg and Del.icio.us, that 40% was made up of different stories. On Digg, the release of Apple's iPhone, released June 29, accounted for more than four in ten (41%) of all technology-related news. That story was completely absent on Del.icio.us, whose users pushed more stories about the latest high-tech moves by social networking sites.
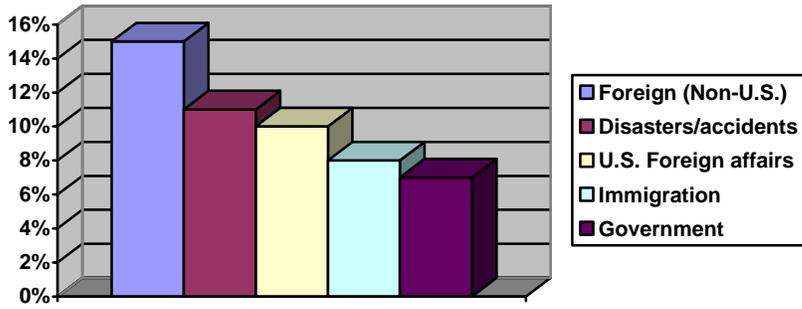
A greater emphasis on technology may come naturally to this group of Internet users, found by the Pew Internet & American Life Project to be among those first to embrace sophisticated Web activities.[2]

Coverage about everyday lifestyle activities and concerns was the second most popular topic area on user-driven sites. Roughly two-in-ten stories (20%) on Del.icio.us fit this bill, more than what was found on both Reddit (15%) and Digg (11%). In the mainstream media, by contrast, lifestyle stories amounted to about 3%.
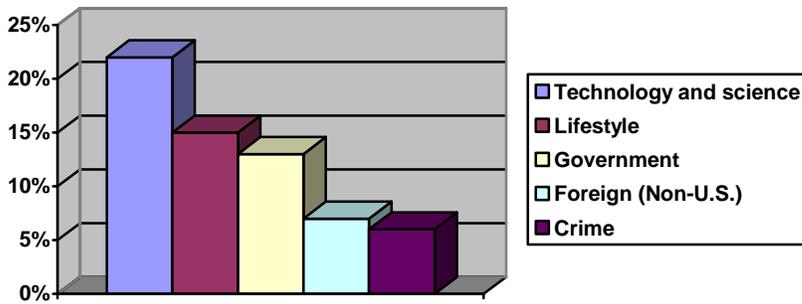
As an example, Del.icio.us and Reddit both linked to a story about fruit and vegetables eating each other told through Photo-Shopped pictures. And both Digg and Reddit both linked to an amateur Web site in which the author showed photos he took by attaching a camera to a kite.

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[2] "28% of Online Americans Have Used the Internet to Tag Content," Pew Internet and American Life Project, January 31, 2007. http://www.pewinternet.org/pdfs/PIP_Tagging.pdf
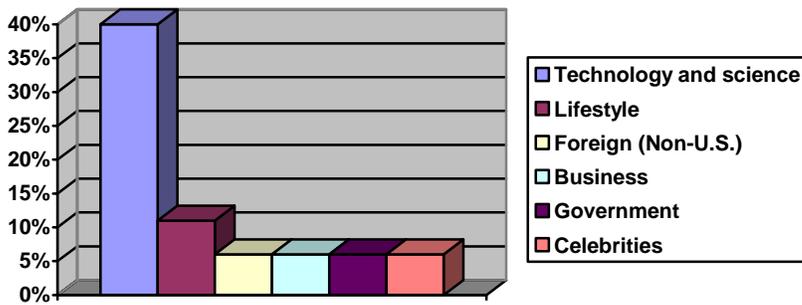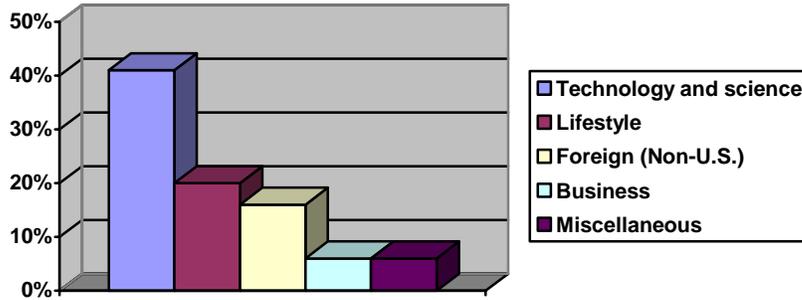
News Index: Top Five Broad Topics

A bar chart with y-axis from 0% to 16%. Legend:
- Foreign (Non-U.S.)
- Disasters/accidents
- U.S. Foreign affairs
- Immigration
- Government

Reddit: Top Five Broad Topics

A bar chart with y-axis from 0% to 25%. Legend:
- Technology and science
- Lifestyle
- Government
- Foreign (Non-U.S.)
- Crime

Digg: Top Five Broad Topics

A bar chart with y-axis from 0% to 40%. Legend:
- Technology and science
- Lifestyle
- Foreign (Non-U.S.)
- Business
- Government
- Celebrities

Del.icio.us: Top Five Broad Topics

One topic area that both users and professional editors gave similar treatment to the week of June 24 was crime. In a week when the story of the murder suicide of wrestler Chris Benoit was breaking, crime accounted for 7% of the stories both in the mainstream news media and on Reddit, followed closely by Digg (5%). On Del.icio.us, however, just one crime story appeared in the downloads.

Coverage from Washington, a traditionally popular topic area among the mainstream media, was of much interest to Reddit users but considerably less so to users on the other two user-news sites. On Reddit, coverage of the federal government accounted for 13%. On Digg, it fell to 6% and readers of Del.icio.us--at least in the top-ten stories of each download--would find themselves completely freed of the subject.

The Washington-based story that carried most of the interest on these sties was Dick Cheney's use of executive supremacy, largely fueled by reaction to the Washington Post's exposé on the Vice President that week. Four percent of all stories on Reddit and 2% on Digg were devoted to coverage—often very critical—of Cheney.

Readers across the three user-news sites were also more inclined to focus on events within the U.S. borders. Looking at the geographic focus, coverage on the three user-news sites this week was even more U.S.-centric than the mainstream media as measured by the Index. Digg led the way, with 89% of stories falling in this category, with Reddit (83%) and Del.icio.us (81%) close behind. In the mainstream media, 71% of stories were focused on events from home.

Meanwhile, coverage on Yahoo News' most popular pages was more international than what we found in both the mainstream press and the three user-driven sites. Nearly three in ten stories (28%) covered topics from abroad. In comparison, the percentage of foreign news (non-U.S.) was 15% in the Index and 10% on the three user-driven sites.

The Individual Sites

The three user-generated sites had a lot of the same characteristics. Still, there were a few things that make each one stand apart.

Digg

Digg, launched in December 2004, is the most popular of the three user-news sites, according to data from Hitwise, which measures Web traffic for over one million online businesses. At the end of June 2007, when PEJ's content analysis was conducted, Digg was the 194th most popular site in the Computers and Internet category. The site's audience is more male (57%) than female (42%). It is also had the youngest audience of the three user-news sites we studied, with just under half (47%) of all users between the ages of 18 and 34.

The content is entirely user-driven. Registered users submit and vote on content, "digging" those they like and "burying" those they don't. The stories with the most "diggs" move to the top of the page, with the order changing almost every minute as users submit and vote on new content.[3]

What users of Digg seem to choose most is technology and science news. Amounting to four-in-ten stories (versus 2% of all stories in the News Index), technology headlines for the week ranged from new features on Facebook—the popular social networking site—to tips on how to build your own lap top.

But it was the release of the iPhone that dominated the technology and science category, with 16% of all news stories on Digg that week. Stories included hundreds of people waiting outside stores to get their iPhones and reviews from various techie Web sites like TechCrunch, Pogue and also techie columnist, Walter Mossberg of the Wall Street Journal. Behind that, at 6%, was another technology-related big story, video game consoles, which are interactive computer devices that are used exclusively to play video games.

Digg's heavy dose of technology and science stories mirrored that of Del.icio.us (41%), though Del.icio.us's technology and science stories tended to focus more on social networking Web sites like Twitter and Foldera.

Of all the other outlets studied, Digg was also the most U.S. national-centric at 89%, slightly higher than what it was on Reddit (83%) and Del.icio.us (81%), and considerably more than what it was in the Index (71%).

Del.icio.us

The Web site Del.icio.us, founded by 32-year old Joshua Schachter in late 2003, is the "oldest" of the three sites studied. It was acquired by Yahoo in December of 2005 and was the 410th most popular site in Hitwise's Computers and Internet category at the end of June. Del.icio.us, unlike Reddit and Digg, had more female (55%) users than male (45%) users. It was also skewed the oldest, with the lowest percentage (35%) of users under 35.

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[3] Alexa.com, May 2007.

Del.icio.us is also 100% user-driven but works a little differently than Digg. Del.icio.us is a social "bookmarking" Web site, which lets users "tag" content they find most interesting. So when users find a piece of content (or an entire Web site) that they want to share—whether they find it on Del.icio.us or an outside news outlet--they "tag" it and add a list of keywords to describe the story.

The site then offers several ways for visitors to view the content. Most immediately, there is a "Hot List" on the homepage which lists content items that contain the "hottest" keywords of the moment.[4] Users can choose to view a list of the "most popular" content, or that with the most number of tags from users. This subject-based content was the page analyzed for this report.

In the week studied, Del.icio.us had the most fragmented mix of stories and the least overlap with the mainstream News Index. Overall, just 3% of its stories were devoted to continuous, major stories that dominate the mainstream news media. Rather, stories on Del.icio.us were of a more eclectic flavor, such as one on how to make coffee in Japanese and another on the nature of airplane seating.

Not surprisingly, the content on the site resulted, during the week studied, in a more diverse range of topics than the other two sites. Technology and science stories still dominated, at 41%, with articles on the history of Adobe Photoshop, how tagging works on social bookmarking sites, and shortcuts on the popular Internet encyclopedia site, Wikipedia.

There were also a high number of lifestyle stories, such as a link to a Web site that rates more 20,000 hostels. Two in ten (20%) stories overall fell into the lifestyle category, a higher number than what we found on Reddit (15%) or Digg (11%). Meanwhile, they made up just three percent in the News Index that week.

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[4] FN: The programming for this is based on what the industry terms a "folksonomy," a non-hierarchical way of categorizing content by using tags (freely-chosen keywords).

Reddit

Reddit, founded in 2005 by Steve Huffman and Alexis Ohanian, two recent graduates of the University of Virginia, and then later acquired by Condé Nast Publications in October 2006, is the newest of the three user-news sites. Data from Hitwise found that Reddit had the smallest audience of the three sites we studied, ranking 1,222 at the end of June. Meanwhile, other data showed that it had the highest percentage (64%) of men and almost as many users (45%) 18 to 34 as Digg (47%) did during the week we conducted the research.

Its content selection is based on user submission followed by "up" or "down" votes. Next to each of the 25 stories on its homepage there is an up and a down arrow for users to vote for or against the content. Stories with the most "up" votes rise to the top. According to *Wired*, "web content posted to Reddit tends to center on politics, opinion and world news."[5]

In the week studied, Reddit too showed a high affinity for technology and science stories, though it also included the most coverage of Washington politics.

More than two in ten (22%) stories on Reddit covered technology and science issues. But while technology and science was the most popular story topic on Reddit, it was roughly half the percentage on both Digg (40%) and Del.icio.us (41%).

The second most popular topic was lifestyle (15%). This number was similar to what was found on Digg (11%) but less than what it was on Del.icio.us (20%).

The third most popular topic was coverage of the federal government, at 13% (compared to about 5% on Digg and none at all on Del.icio.us). The bulk of government stories on Reddit were about President Bush and Vice President Cheney, with particular reference to eavesdropping programs and coverage of the Vice President in which he claimed he was not part of the Executive branch.

In terms of specific stories, Reddit focused most heavily on domestic terrorism (7%). These stories included a cartoon that made fun of President Bush for allowing the NSA eavesdropping program. Domestic terrorism did not receive similar coverage from any of the other outlets.

The next three most popular stories on Reddit were the Vice President Cheney controversy (4%), Supreme Court actions (3%), and video game consoles (3%).

In terms of geographic focus, Reddit was similar to Digg and Del.icio.us. Eighty-three percent of all its stories were U.S.-centric, parallel to Digg (89%) and Del.icio.us (81%).

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[5] http://www.wired.com/techbiz/it/news/2006/10/72038

Yahoo News

In addition to examining the content on three of the most popular user-based news Web sites, PEJ also closely examined one outlet that offers both an editor-based news page as well as lists of user-ranked news: Yahoo News. Yahoo's main news page, (www.news.yahoo.com), the most popular news Web site in the U.S. according to both comScore and Nielsen//Net Ratings, is controlled by editors who select stories from 7,000 different news outlets, according to Yahoo News's Web site. In addition, the site offers three user-driven lists of stories: the most viewed, the most-recommended, and the most emailed.

We closely examined the top stories on each of these pages from June 24 to 29 to get a sense of how different (or similar) the user stories were from the editor-selected stories and also to see if there were differences in the stories that were recommended versus those that were highest read or the most emailed.

Looking at the broad topic areas, both Yahoo News and its user-organized pages (emailed, viewed and recommended) were more focused on international events not involving U.S. interests that week than the overall media studied in the News Index. A third (32%) of all stories on Yahoo News main page and 28% of those on its user-organized pages was coverage of events from overseas, such as the Israeli-Palestinian and Lebanese conflicts.

Beyond that, however, the topics differed. The user-ranked stories tended to be more about health and medicine (8% versus 0% of the Yahoo News stories), lifestyle (7% versus 0% on Yahoo News) and crime (7% versus 0%).

The specific story selections varied even more. On each day studied, at most two or three stories out of the 30 across these three lists corresponded to top stories on the main news page.[6]

For example, on June 27, Yahoo News's main page at 9 am led with news of Tony Blair's resignation. The resignation was nowhere to be found on the user-lists. Instead, it was the death of fashion designer Liz Claiborne as the Most Viewed; a health tip about antioxidants as the Most Recommended story; and the Justice Department subpoena of the White House and the Vice President's office as the Most Emailed story.

Meanwhile, some stories remained on the list for more than one download. For example, an article about a study that found California to be the state with the worst traffic in the country appeared on Yahoo's Most Viewed on the evening of June 28th and then again, the next morning.

If users, then, are making different selections than editors, are they also emailing different stories than they view? How do their recommendations to others fit in?

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[6] For comparison purposes, we compared the 9 am. list of stories on the main news page with those found on the user-based pages at 5 pm. This way, editor-selected stories had time to resonate with users.

The broad topic areas were similar across the three with the greatest percent of stories that week devoted to foreign affairs that did not involve U.S. interests. This topic accounted for 35% of Most Recommended, 29% of Most Emailed and 22% of Most Viewed.

Crime was also a popular topic, though considerably less than foreign affairs (non-U.S.): 5% of Most Recommended, 7% of Most Emailed, and 8% of Most Viewed. One subject area treated different this week was health and medicine which was a popular choice for users of the Most Recommended (15%) and Most Emailed (7%) though it accounted for just 2% on the Most Viewed page.

The real flavor of the lists comes from looking at the specific stories. Just under a quarter (22%) of the 314 stories appeared more than once. Most often, this meant it was included in two of the different rankings at the same time. For example, a story about the indictment of four men for allegedly trying to blow up JFK airport appeared on Yahoo's Most Recommended and on Yahoo's Most Viewed list on June 29 at 5 pm.

These individual stories reflect the subtle differences between the three most popular pages. On Yahoo's Most Recommended Page, the highest percentage of coverage was on foreign events not involving the U.S. (it was also the most popular category across the other two user-driven sites but considerably less prominent).
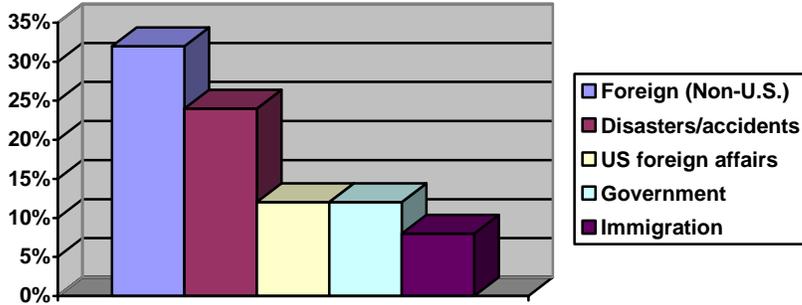
Beyond that, the Most Recommended page was most likely to include "news you can use," such as articles on the Chinese pet food recall story which enumerated types of food that could be life-threatening to one's cat or dog. In fact, one in ten (10%) stories on the Most Recommend Page was devoted to this issue.

While the Most Emailed page also included a fair amount of news useful to readers, it was the most diverse and fragmented of the three pages, with just 21% of all stories on this page devoted to the big, continuous stories that dominate the Index (in contrast, 52% of the Most Recommended Stories and 55% of Most Viewed were big stories). Indeed, the most prominent stories, at 2%, were immigration, the story of a missing pregnant woman in Ohio, and the fire in the Lake Tahoe region. There were also a considerable number of oddball stories. The 5pm download on June 26 reflects this eclectic mix of hard and soft news, with stories on the immigration debate and Iraqi refugees heading to the U.S. competing with stories on the world's ugliest dog and Peruvians' appetite for eating guinea pigs.
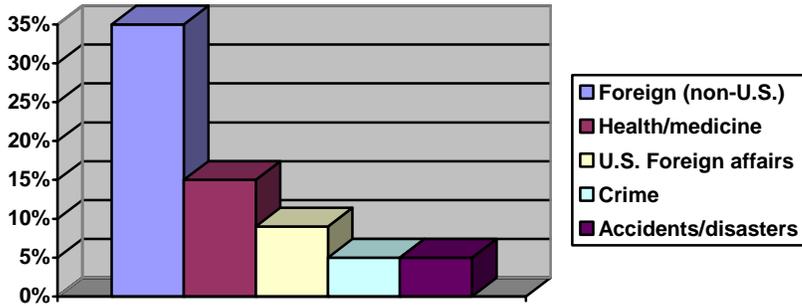
Finally, the Most Viewed page was the most sensational of the three most popular pages, with the most breaking news on celebrity and crime stories. Eleven percent of all stories were celebrity-related stories, compared to 3% of Most Emailed and just 1% of Most Recommended. Meanwhile, crime accounted for 8% of all coverage on Most Viewed, slightly higher than what it was on Most Emailed (7%) and Most Recommended (5%). The lineup at 9 am on June 27 illustrates this trend, with stories on media coverage of Paris Hilton, an ex-marine teacher fending off a would-be pick pocketer, the singer

Beyonce, the pro wrestler Chris Benoit accused of murdering his family, and concern that gas stations are ripe for ID theft.
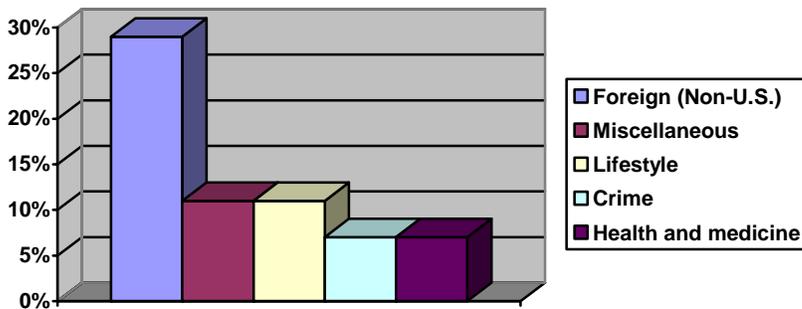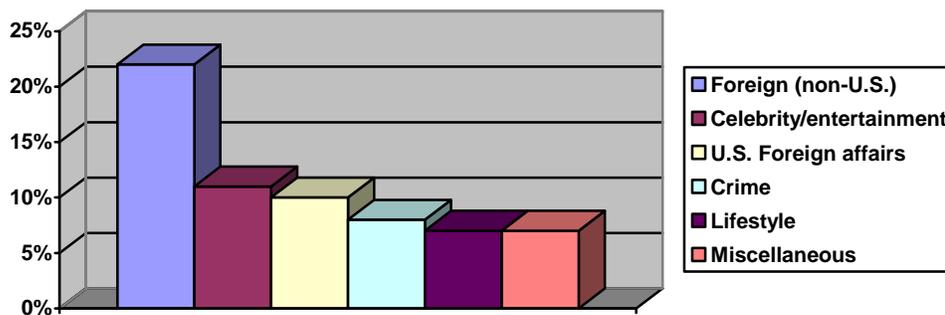
Yahoo News Main Page: Top Five Broad Topics

Legend:
- Foreign (Non-U.S.)
- Disasters/accidents
- US foreign affairs
- Government
- Immigration

Yahoo News Most Recommended: Top Five Broad Topics

Legend:
- Foreign (non-U.S.)
- Health/medicine
- U.S. Foreign affairs
- Crime
- Accidents/disasters

Yahoo News Most Emailed: Top Five Broad Topics

Legend:
- Foreign (Non-U.S.)
- Miscellaneous
- Lifestyle
- Crime
- Health and medicine

Yahoo News Most Viewed: Top Five Broad Topics

Conclusion

Just a few years ago, when user-driven media was in its infancy, even the strongest supporters worried about its capacity to inform the public, a role the mainstream media had claimed for at least a century. A well-known advocate for expanding the role of citizens in journalism, Dan Gillmor, wondered and worried in 2004 what would happen to the traditional business model for journalism when we reached the tipping point where the audience for traditional media shrank, and user-driven media surpassed it:

> "Who will do big investigative projects, backed by deep pockets and the ability to pay expensive lawyers when powerful interests try to punish those who exposed them, if the business model collapses? Who would have exposed the Watergate crimes in the absence of powerful publishers, especially The Washington Post's Katherine Graham, who had the financial and moral fortitude to stand up to Richard Nixon and his henchmen. At a more prosaic level, who will serve, for better or worse, as a principal voice of a community or region? Flawed as we may be in the business of journalism, anarchy in news is not my idea of a solution."

For now, the percentage of Americans who rely exclusively on news from user-driven sites is just a fraction of what it is for mainstream news sites. And in this increasingly fragmented era, many who visit Digg, Del.icio.us, and Reddit may also be reading the online versions of The New York Times and The Wall Street Journal. But whether or not we see further divergence between user-driven sites and mainstream media over the next few years will surely remain a key question for researchers, journalists and of course, citizens.

Methodology

This study compares the news stories from user-determined news aggregators with those that were part of PEJ's News Coverage Index. In this study PEJ chose to look at three different independent user-news sites: Digg, Del.icio.us and Reddit. In addition, PEJ looked at the three components of Yahoo News that depend on user input. These are Yahoo News Most Emailed stories, Yahoo News Most Recommended stories and Yahoo News Most Viewed stories. For each Web site mentioned, PEJ studied the top-ten stories

on the homepage. This study looks at how topics in user-news aggregators compare with the larger, mainstream news media.

PEJ's News Coverage Index is a thorough content analysis study of the topics that appear in the news media every week. The universe for the Index consists of 48 media outlets including newspapers, network television, cable television, online news sites and radio. A team of trained coders captures and analyzes each of the outlets. We code segments of these outlets that serve as a purposive sample of the larger media universe. The Index's methodology details the rigorous standards followed for its coding.

The News Coverage Index is weighted according to media sector, and stories are presented as percentages of the entire newshole (click here for NCI Methodology).

For the purposes of this study on user-news aggregators, we focused on the number of stories alone and presented them as percentages of the total number of stories. Digg, Del.icio.us and Reddit link outside the host site and the size of a story is not an editorial decision made by the site itself. So we only measured how many of the total stories were about a particular topic. This particular study diverged from the News Coverage Index in that it did not measure the newshole.

To avoid discontinuity, we recalculated the percentages for each story in the News Coverage Index so that it would exclude weighting, word and time counts. For the purposes of this study, variables in the News Coverage Index were re-tabulated to measure how many from the total of 1,395 stories were devoted to a particular geographic focus, big or broad story topic. Since calculations about the News Coverage Index were done without weighting, statistics that appear in this study may differ from the numbers that appeared in other PEJ studies.

The time period for this comparative study is from a randomly selected week beginning Sunday, June 24, 2007 and ending on Friday, June 29, 2007. The universe for this particular comparison consists of the top ten stories featured on Digg, Del.icio.us, Reddit and the Most Emailed, Most Viewed and Most Recommended stories from Yahoo News. A team of professional coders analyzed the top stories that appeared on the homepage (homepage refers to the main news page for each site). All Yahoo stories are hosted by Yahoo, but each sector—Most Emailed, Most Viewed, and Most Recommended—has its top ten stories listed on a different homepage. The content analysis of this study was conducted under the supervision of PEJ's methodologist.

Each site was downloaded every day between June 24 and June 29 at 9am and at 5pm. A total of 644 stories were coded and used for this study.

For Yahoo News, the main page for each of the three sectors listed the top ten stories, so that there were a total of 30 Yahoo stories per download.[7]

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[7] For the following days and times Yahoo News Most Emailed listed less than ten stories:
- For June 24, only the top 10 stories at 9 am were coded and included in the study.
- On June 26, at 9 am, only 5 stories appeared on the homepage.

At Digg.com, the homepage listed all the highest recommended stories. Of these the top ten were included in the study.

For Del.icio.us, the page lists all the most recommended stories, and from this the top ten were coded and included in the study.

Reddit's homepage listed 25 most recommended stories. Of these, the top ten were coded and included in the study.

The protocol designed for this study was derived from that used for the Weekly News Coverage Index to maintain consistency. Eleven variables were coded including coder ID, story number, source, date (on which the story appeared on the homepage), download time, origin (story format), geographic focus, broad story topic, big story topic, sub story topic and story describer.

Variable source includes all three Web sites that were part of the study and the source of the story refers to the Web site (Yahoo News Most Emailed, Yahoo News Most Viewed, Yahoo News Most Recommended, Digg, Del.icio.us, or Reddit) that listed the story coded.

The origin variable refers to the format of the story, tracking whether the linked story appeared on the Web site server, a blog post, a news outlet, whether it was a wire story, or if it linked to a completely different site, which is not generally regarded as a news source.

Geographic focus concerns the location where the story originated, measuring whether a story was a U.S. story, a U.S.-international story or an international story that did not include the U.S.

The variable for broad story topic determined the general topic categories that were addressed by the story. The list of broad story topics used for this study was the same as those used by the Weekly News Coverage Index.

Big stories are particular news stories that recur frequently in the news during the time period understudy.

Variable sub story refers to developments, aspects and features of those long-running big story topics that occur most often in the media. Stories in this study were coded using the same list of big stories and sub stories that was used for the News Coverage Index for the week beginning June 24.

- On June 27, at 5 pm, only 6 stories appeared on the homepage.
- On June 29, at 9 am, only 3 stories appeared on the homepage.