Case Studies

Abstract

This chapter of Using Web Analytics in the Library *provides several examples of how different types of libraries in different contexts have successfully used web analytics to enhance their online presence.*

The previous chapters have defined various Google Analytics (GA) metrics and how they can be used in website analysis. This section will highlight some specific examples of libraries where GA has been implemented, how those metrics have been used, and how librarians have formed *actionable insights* based on their reviews of the GA reports. In addition, I will include some information about gathering metrics from your library's social media tools, which while not strictly a part of mainstream web analytics, is nevertheless a powerful part of your overall website analysis and thus relevant to this report.

I will start with an extensive case study from the Archives and Special Collections from Wheaton College in Illinois. Their department head, David Malone, is a seasoned user of GA and describes his extensive use of the program to form actionable insights about the website on a regular basis, enabling him to tweak the site to continually improve the visitors' experiences. I will continue with two more examples based on shorter interviews, both of which continue to inform us regarding various insights from GA and making decisions for website or service improvement based on those statistics. Next, I will include a case study from the literature which also illustrates many of the points made throughout this report. Finally, I will include information on tracking social media activity on your site using tools other than Google Analytics. Many thanks to those librarians who took the time to share their experiences with using both GA and social media metrics.

WHEATON COLLEGE

David Malone

The Wheaton College Archives and Special Collections is a division of Buswell Memorial Library at Wheaton College in Illinois. The library's mission is to support the college's liberal-arts curriculum. As a department of the library, the Archives and Special Collections supports that curriculum through monographic, manuscript, and media holdings, including collections from authors, artists, evangelical organizations, social scientists, and members of Congress.

Buswell Library website
http://library.wheaton.edu

Archives and Special Collections catalog
http://archon.wheaton.edu

Archives and Special Collections legacy site
www.wheaton.edu/learnres/ARCSC

Getting Started with GA

Our computing department had been using an analytics program that it administered locally. We found that certain bits of information were either not being tracked or were being stripped out because of the way
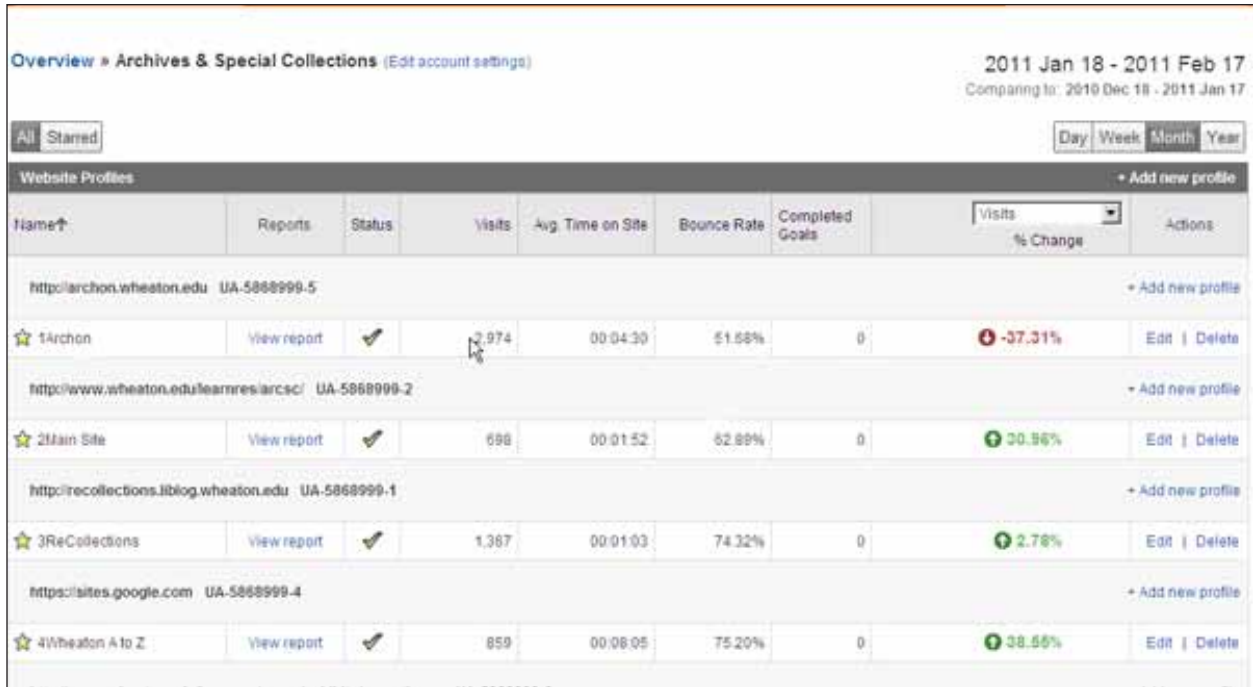
Figure 21
Google Analytics profiles at Wheaton College.
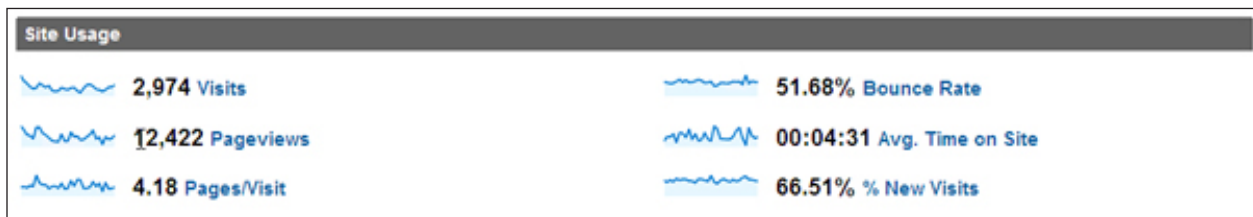
Figure 22
Basic information about site usage.

the computer network on campus was installed or utilized, or the software itself was stripping it out. We wanted to track who was using our resources, but that program was not providing the information.

Some of the things we wanted to track were these: Where are people coming from? What are they viewing? How long are they staying on our site?

We are running six different profiles (figure 21) because I want to track the various websites we are running right now. I include numerals at the beginning of the profile name so that they sort by order of importance rather than alphabetically when GA displays the profile list. I am most interested in our Archon site. Next is our static legacy website. Also included as one of our profiles is our online encyclopedia, which is a wiki of sorts, and our exhibits page.

I do use filters to exclude local traffic, including site visits from my computer and my staff's computers so that as we're working on the sites our visits don't get counted by GA.

Here is some basic information about site usage from the GA report (see figure 22). On our Archon site, we've had 2,974 visits, and the average time on site was 4 minutes and 31 seconds. The bounce rate is 52 percent. And, in this last month, these usage statistics are 37.31 percent lower than they were the month before. That's helpful just as a quick pulse check. I'm going to look at that—why do we have 37 percent fewer users this month? It could be that we're on semester break, Christmas break—a significant amount of our user population is gone, and that could account for it. Here again is an example of where we started off simple, and now we're stepping it up. We're seeing different ways we can make this more useful for ourselves.

By clicking in this report and going deeper, I'm presented again with a number of bits of information that were in that previous screen. I find that of

Figure 23
Referring sites.
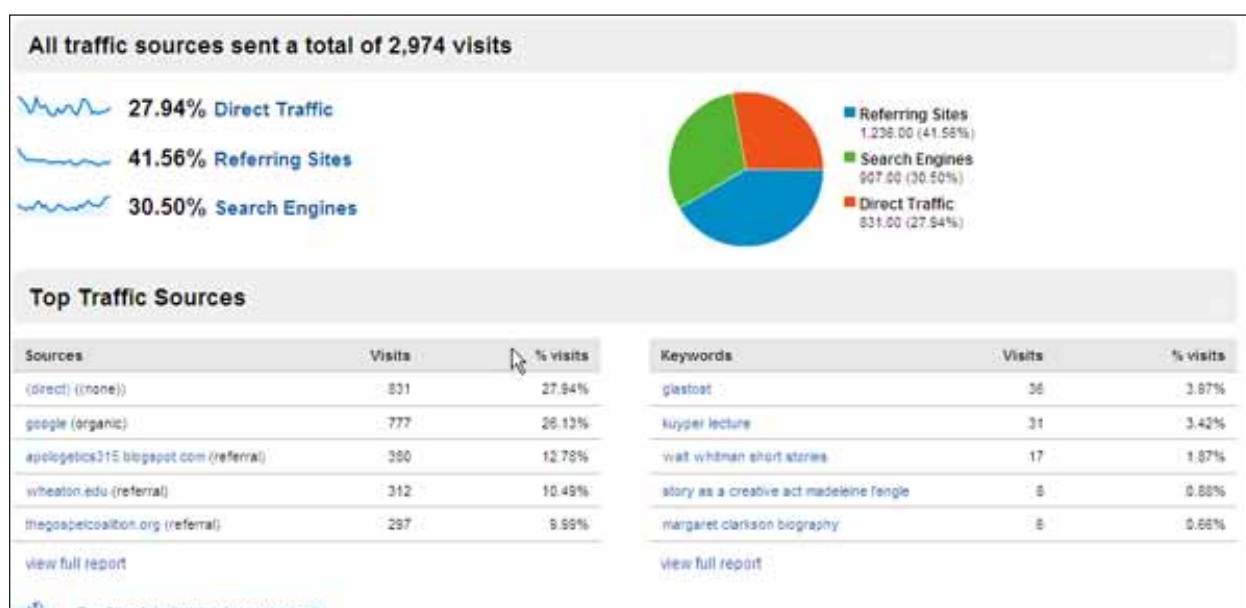
Figure 24
More information from referring sites.

2,974 visits, the users looked at 12,422 pages. So visitors looked at four pages per visit—that's good, in my mind. If they are navigating to various pages on our site, that means we have staying power—validated by the 4 min 31 seconds time on site. On the Internet, even 30 seconds on site can be considered a long time.
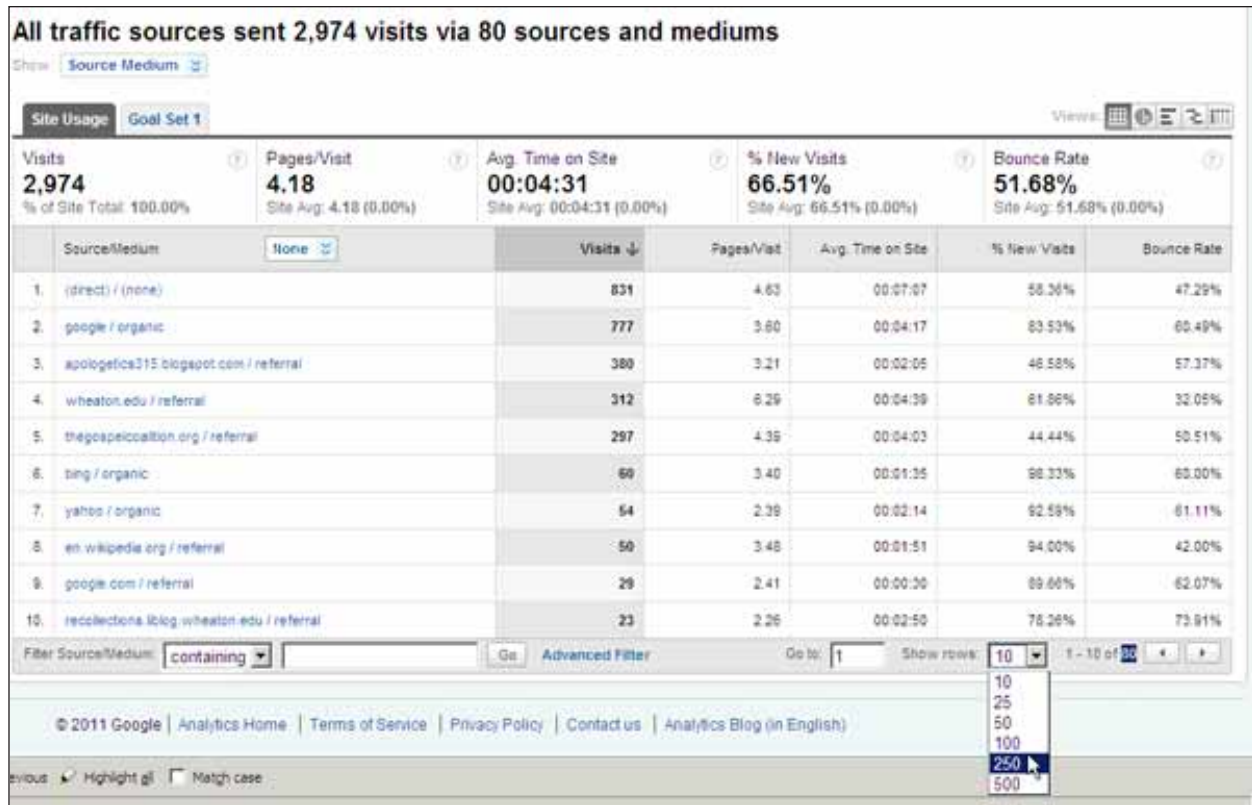
Scrolling down, I can see where our users are coming from (figure 23). I can see that about a third of our users are being referred to us, a third are coming from search engines, and a third are coming from direct traffic—they may have a bookmark or an e-mail with a link. They are coming straight to us. So let me dive a little into this.

This information is now broken down a little further (figure 24). My top traffic sources are from visitors who come from a direct link, such as a bookmark.

The next highest source is from Google itself. Then I notice that something is coming from a particular blog. I navigate there and find that they were referencing some of the digital content we have on our site. I may want to consider contacting the author of the blog. I can also go to a full report, and I can see that I actually have 80 lines of information (figure 25).

So I'm going to expand this further so I can see as much information as possible all at once. And here I can get a sense of the various sites that are coming to us. One of our collections is the National Association of Evangelicals (figure 26)—we have their records.

So people are coming to us from their website. People are coming to us from our blog—23 people in this last month jumped from our blog to our archival resources (figure 27). That's a positive. You can see

Using Web Analytics in the Library   **Kate Marek**

All traffic sources sent 2,974 visits via 80 sources and mediums

Show: Source Medium

Site Usage | Goal Set 1 — Views:

Visits	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
2,974	**4.18**	**00:04:31**	**66.51%**	**51.68%**
% of Site Total: 100.00%	Site Avg: 4.18 (0.00%)	Site Avg: 00:04:31 (0.00%)	Site Avg: 66.51% (0.00%)	Site Avg: 51.68% (0.00%)

	Source/Medium None	Visits ↓	Pages/Visit	Avg. Time on Site	% New Visits	Bounce Rate
1.	(direct) / (none)	831	4.63	00:07:07	58.36%	47.29%
2.	google / organic	777	3.60	00:04:17	83.53%	60.49%
3.	apologetica315.blogspot.com / referral	380	3.21	00:02:05	46.58%	57.37%
4.	wheaton.edu / referral	312	6.29	00:04:39	81.86%	32.05%
5.	thegospelcoalition.org / referral	297	4.35	00:04:03	44.44%	50.51%
6.	bing / organic	60	3.40	00:01:35	98.33%	60.00%
7.	yahoo / organic	54	2.39	00:02:14	92.59%	61.11%
8.	en.wikipedia.org / referral	50	3.48	00:01:51	94.00%	42.00%
9.	google.com / referral	29	2.41	00:00:30	89.66%	62.07%
10.	recollections.lblog.wheaton.edu / referral	23	2.26	00:02:50	78.26%	73.91%

Filter Source/Medium: containing [ ] Go | Advanced Filter — Go to: 1 — Show rows: 10 — 1 - 10 of 80

10
25
50
100
250
500

© 2011 Google | Analytics Home | Terms of Service | Privacy Policy | Contact us | Analytics Blog (in English)

...vious ✓ Highlight all ☐ Match case

Figure 25
Expanded referral sources.

people are coming from Bing; they're coming from Yahoo. So—some people are coming from some other blogs.

Let's go back and look at what the keywords are that people are searching when they're out on the Web. Find the keywords listing by starting at the main menu on the left, then going to Traffic sources, to Keywords, and to See All (figure 28). I can drill down to see which search engines are being used for each keyword, and I can look at search terms and see how long visitors stay on the page they come to.

The thing that jumps out to me about this list of results was the term "glastost," which I have never heard of. I have heard of glasnost, the political philosophy that grew out of the Soviet Union. We have a number of collections that deal with Soviet Union religious freedom. After looking further at this, I realize we had 36 hits based on a misspelling. One of the things using Google Analytics has helped me do is to find a misspelling, something I certainly never anticipated! I then take "glastost" and jump in to Google and search glastost site:wheaton.edu (figure 29).

I find that our Anita and Peter Deyneka Papers have that misspelling. I can go to that item and search within the page to find the specific appearance of that misspelling, and then can verify whether it is indeed misspelled in our index. I never anticipated that our analytics tool could help us find misspellings, but that's what it's doing.

If you're not reviewing the search logs, you're missing out on a lot of important information about how your users function and how your users search. I'm finding, for example, that some of our visitors are using quotes. Good—we're telling them to use quotes on the front page and the introduction!

Figure 30 shows an example of looking at traffic sources. Clicking on Visitors, I can begin to see who the people are who are coming to our site.

Of 2,974 visits, I see that 2,094 of them are unique visitors. To me, this is fantastic information. This means that we don't just have a small number of visitors who keep coming back and back and back. We have a much larger user population. Much of what we have here was on the GA report's front page. But here I'm able to know what browsers people are using; by keeping track of this information, I have a better idea of our users' experience when they come to our site. For example, if I see I have BlackBerry users, I need to know what our site looks like on a BlackBerry—especially if I notice a consistent growing trend here.

What are the screen resolutions (figure 31)?

The traditional VGA screen is 800 × 600—and

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2.	google / organic	777	3.60	00:04:17	83.53%	80.49%
3.	apologetica315.blogspot.com / referral	380	3.21	00:02:05	46.58%	57.37%
4.	wheaton.edu / referral	312	6.29	00:04:39	61.86%	32.05%
5.	thegospelcoalition.org / referral	297	4.39	00:04:03	44.44%	50.51%
6.	bing / organic	60	3.40	00:01:35	96.33%	80.00%
7.	yahoo / organic	54	2.39	00:02:14	92.59%	61.11%
8.	en.wikipedia.org / referral	50	3.48	00:01:51	94.00%	42.00%
9.	google.com / referral	29	2.41	00:00:30	89.66%	62.07%
10.	recollections.lblog.wheaton.edu / referral	23	2.26	00:02:50	78.26%	73.91%
11.	facebook.com / referral	16	3.06	00:01:00	87.50%	62.50%
12.	sojo.net / referral	15	5.27	00:05:01	100.00%	20.00%
13.	labri.net / referral	10	5.50	00:02:18	70.00%	40.00%
14.	search / organic	10	3.70	00:00:57	100.00%	40.00%
15.	bryanlopez.com / referral	7	22.71	00:11:23	100.00%	14.29%
16.	theoblog.de / referral	7	1.43	00:00:11	85.71%	71.43%
17.	feeds.feedburner.com / referral	6	2.67	00:02:00	50.00%	33.33%
18.	p.net / referral	4	10.75	00:04:49	75.00%	0.00%
19.	nae.net / referral	4	2.75	00:02:05	75.00%	50.00%
20.	ce.byu.edu / referral	3	1.33	00:00:11	100.00%	66.67%
21.	cvreenactors.com / referral	3	1.00	00:00:00	100.00%	100.00%
22.	deathisdefeated.ning.com / referral	3	2.00	00:00:14	100.00%	66.67%
23.	renewingthoughts.wordpress.com / referral	3	1.00	00:00:00	66.67%	100.00%
24.	search.bt.com / referral	3	5.00	00:00:33	100.00%	66.67%
25.	127.0.0.1:4664 / referral	2	1.50	00:00:10	100.00%	50.00%

Figure 26
Additional referral sources shown.

|					
2.	google / organic	777	3.60	00:04:17	83.53%	80.49%
3.	apologetica315.blogspot.com / referral	380	3.21	00:02:05	46.58%	57.37%
4.	wheaton.edu / referral	312	6.29	00:04:39	61.86%	32.05%
5.	thegospelcoalition.org / referral	297	4.39	00:04:03	44.44%	50.51%
6.	bing / organic	60	3.42	00:01:35	96.33%	80.00%
7.	yahoo / organic	54	2.39	00:02:14	92.59%	61.11%
8.	en.wikipedia.org / referral	50	3.48	00:01:51	94.00%	42.00%
9.	google.com / referral	29	2.41	00:00:30	89.66%	62.07%
10.	recollections.lblog.wheaton.edu / referral	23	2.26	00:02:50	78.26%	73.91%
11.	facebook.com / referral	16	3.06	00:01:00	87.50%	62.50%

Figure 27
Referrals from our blog.

now I know that only 0.64 percent of our users are coming in at that resolution. Our blog is set up as a template at 800×600. So in the back of my mind as a to-do item is to edit our template to move up to a 1024×768 environment.

I can see from this that the vast majority of our users are coming in with a wide screen. So let's take advantage of that—let's not be constrained by a limited desktop as we're developing our site (see figure 32). I can find out additional information such as what kind of flash versions and how many screen colors our visitors have, so if we have a Flash resource, I'm sure we're meeting the most recent standards.

We can also see the connection speeds of our user

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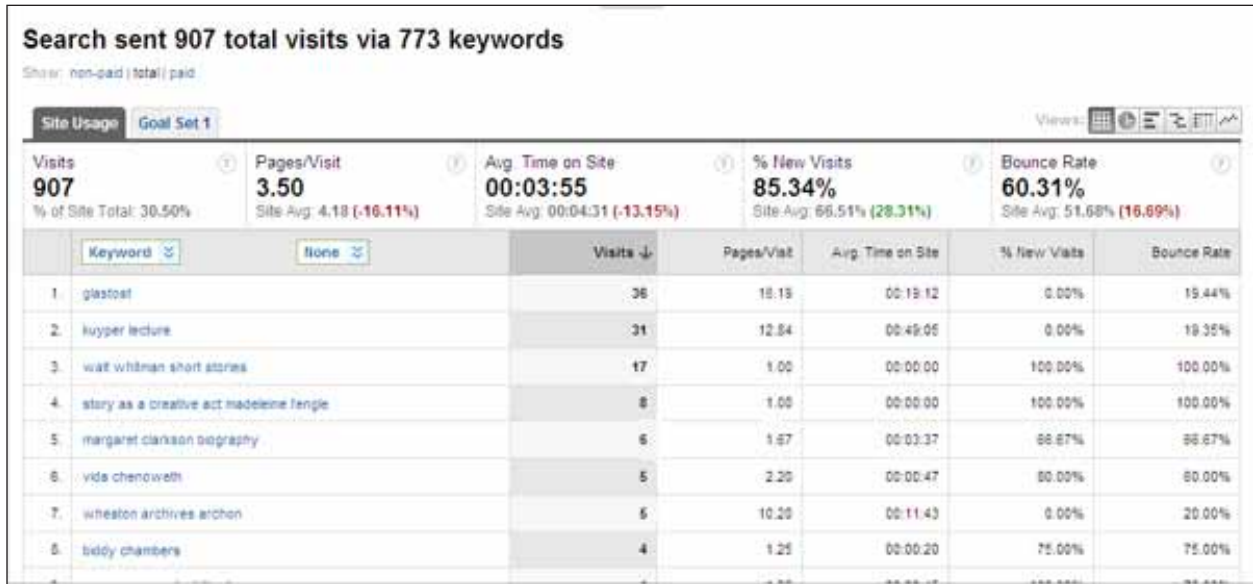
Figure 28
Keywords being used by our visitors to find us.
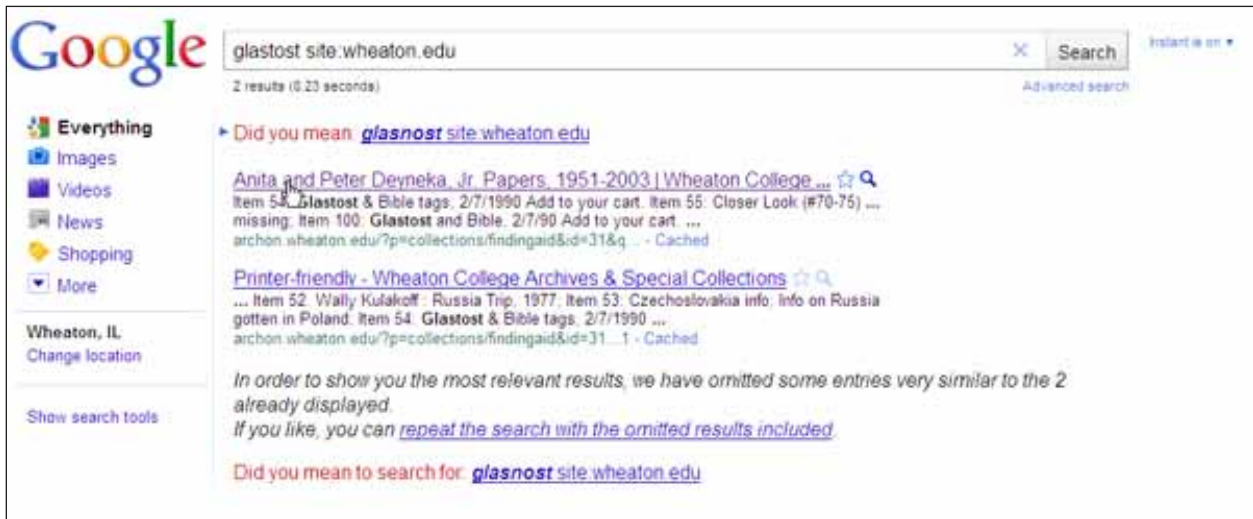
Figure 29
Finding "glastost" misspelling.

population. Just about 1.5 percent of our user population is on dialup (figure 33).

What does that tell me? That tells me I'm going to spend very little time worrying about our download speed. We have to make choices whether to spend time developing our site for the 98.5 percent with high-speed access or the 1.5 percent with dialup.

Figure 34 shows a good example of a significant jump in site traffic and how it can be explained and analyzed.

There was an 8,226 percent jump in this statistic last month. The difference between February 8 and February 9 is significant. February 9 was the day

that an audiovisual slide show was posted on the main page of the college library. The page had 14,000 page views, 12,000 of those unique, most likely all from that one exhibit (figure 35). That to me is phenomenal—the average time on that page is 5 minutes and 5 seconds, which is just about how long that video is.

So we have reached over 12,000 people with this one video in this last week. To me that says I need to make more of those slides shows and to work with our staff in the library to have more of those videos cycling through. This becomes a point of discussion within the staff in the archives: Do we have any content that can be delivered as an audiovisual slide

Figure 30
Visitors Overview.
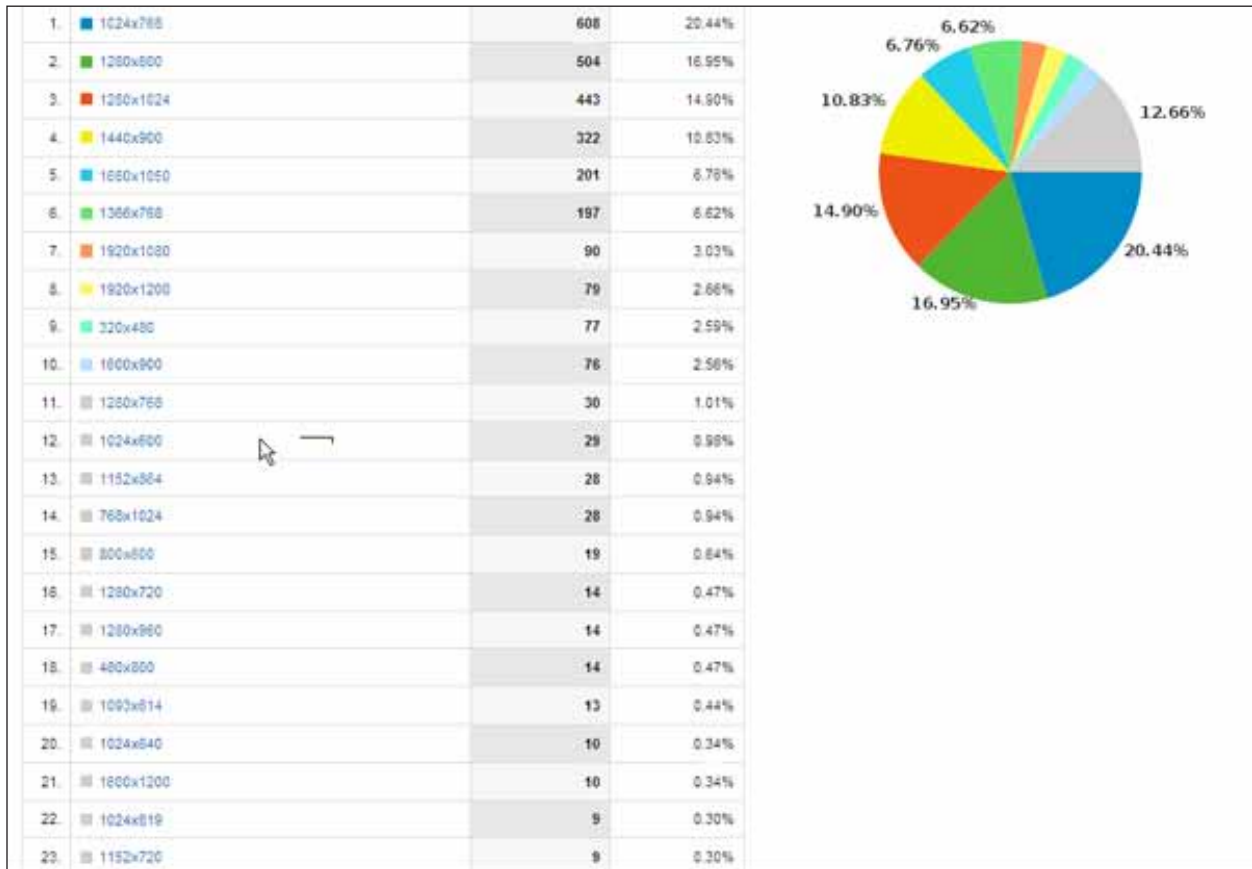
Figure 31
Screen resolutions.

Figure 32
Wasted space on the left.
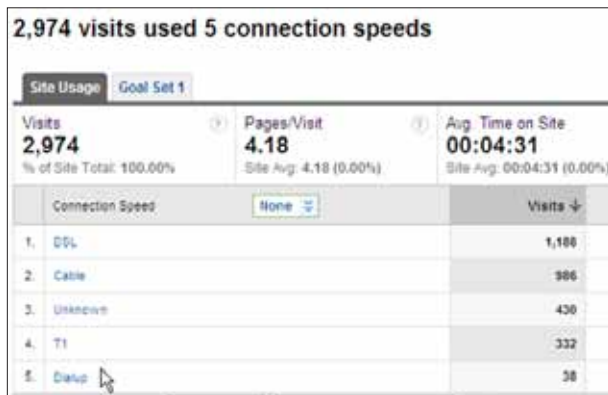
Figure 33
Dialup users.

show rather than as a static webpage? Static click-through exhibits should be repackaged as a four- to five-minute videos to introduce to a lot more people to our holdings.

Administrative and Staff Reports

I review Google Analytics reports several times a week, and I do sometimes bring up some of the trends I'm seeing at our staff meetings. We may start structuring more times for us to incorporate this as a regular part of our meetings, as I'm incrementally growing some of the staff into this.

In reporting to our administration, we were able to justify spending time developing our blog entries through the Google Analytics data. We post entries two to three times a week, which is an investment in staff time. I'm making a choice to do that, and as a result we're not processing materials at the same rate. I was able to show through using GA that 1,500 individual users per month who visit the blog are equivalent to 1,500 people coming in and looking at an exhibit at our building. So when we use GA data in reports to the administration, we are not necessarily trying to justify more staff, but rather trying to look at the best ways to use our staff time. We need to make sure that the collections that we have are not hidden—we know how people are finding them through using GA. We are making decisions about what we are and are not doing in order to best meet our users' needs and to best leverage our collections.[1]

Additional Case Studies

The next two case studies are shorter and more focused. Anthony Molaro, formally from Messenger Public Library in North Aurora, contributed information about how that library used Google Analytics for insights toward a major redesign of their website. Sharon Streams from WebJunction describes how another type of information organization uses Google Analytics on a regular basis to gauge their users' experience and the overall effectiveness of their website. Next, I provide a synopsis of a case study published in 2007 by Wei Fang about the library redesign at

Figure 34
Jump in traffic after posting an online video.

Figure 35
Video page views.

Rutgers-Newark Law Library, where they also used Google Analytics for various actionable insights. Finally, I include an overview and some tips from independent library consultant Dawne Tortorella regarding data from your social networking tools.

MESSENGER PUBLIC LIBRARY

Anthony Molaro

Messenger Public Library, named for longtime librarian Emeline Messenger, serves a community of approximately 16,000 in North Aurora, Illinois, about 35 miles west of Chicago. According to its 2010 technology plan, "The chief technology product of the Messenger Public Library is its website. The library has almost as many virtual visitors to the library as in-person. We, therefore, believe that the library website should match the welcoming and warm environment found within our walls and to use the digital space to help users find what they seek."[2]

Anthony Molaro, former head of Technical Services and Automation at Messenger Public Library, placed a high priority on the library's website as stated in the library's technology plan. He spoke about the library's use of the Google Analytics program as a tool for ongoing improvement and for a major site redesign.

Our library set up Google Analytics and began using it in 2009. When I started at Messenger Public Library in January 2010 as head of Technical Services and Technology, I decided to continue using GA because of the depth of information it provided.

I checked GA twice a month for basic library reporting purposes. I also monitored particular metrics, including traffic sources to determine where traffic was coming from and what keywords were being used to find us on the Web. This helped us to know how our public was searching for information.

I also used Google Analytics in conjunction with our library's website redesign. We relied heavily on several metrics in determining what pages to keep, delete, and create. For example, based on reports from GA, we could see that we had three top landing pages where people entered our site. In all likelihood, these

Figure 36
Finding pages with low page view rates.

users relied on a bookmark to bring them to a specific page of ongoing interest. One of those top landing pages was the current job openings page at Messenger Public Library. Because this page received such heavy traffic, I decided to push it up to the front page of the new website. In other words, we didn't want users to dig around for information that they thought was important.

We did a similar study of exit pages. I believe that entrance and exit pages can tell you a lot about how people are using your website. For example, one of our top exit pages is our database page. This would make sense.

The loyalty metric is super neat. At Messenger Public, 80 percent of our website users visit the library website two or more times within a year. That's great, but we also wonder why people visit only once during a given year. What were they looking for that they could not find? What turned them off? While qualitative feedback such as surveys might help here and is the preferred method for this type of question, at this time we simply do not have the time or the resources to carry that out.

There was discussion about creating a mobile version of our website. However, the metric on mobile users revealed that only about 1 percent of our traffic

is from mobile devices. As a result of this metric we decided to not create a mobile site at that time. This particular report is monitored closely. Our plan is that when the percentage of mobile users hits 5 percent, we will design a mobile version of the website.

We also set website goals using GA. For example, we heard through an online suggestion box that our users wanted to see staff reading selections. In response to that suggestion, the site redesign included a visual bookcase of staff selections in various formats. I set a goal within GA of at least 100 hits per month, which I determined as my threshold for justifying staff time to update the page. The first month of usage after the launch of the redesigned page had 108 hits. Hitting this goal in the very first month really demonstrated the value of the new page.

As mentioned, I checked the reports twice a month for library reporting purposes. I also wrote a departmental report monthly that included visits and hits to the website. When working on plans for the website redesign, I viewed reports daily. I shared extremely basic information with the director of the library for monthly reporting purposes, and I also used GA to justify to other departmental managers why I moved, eliminated, or added a page.

The screenshots in this section provide illustrations
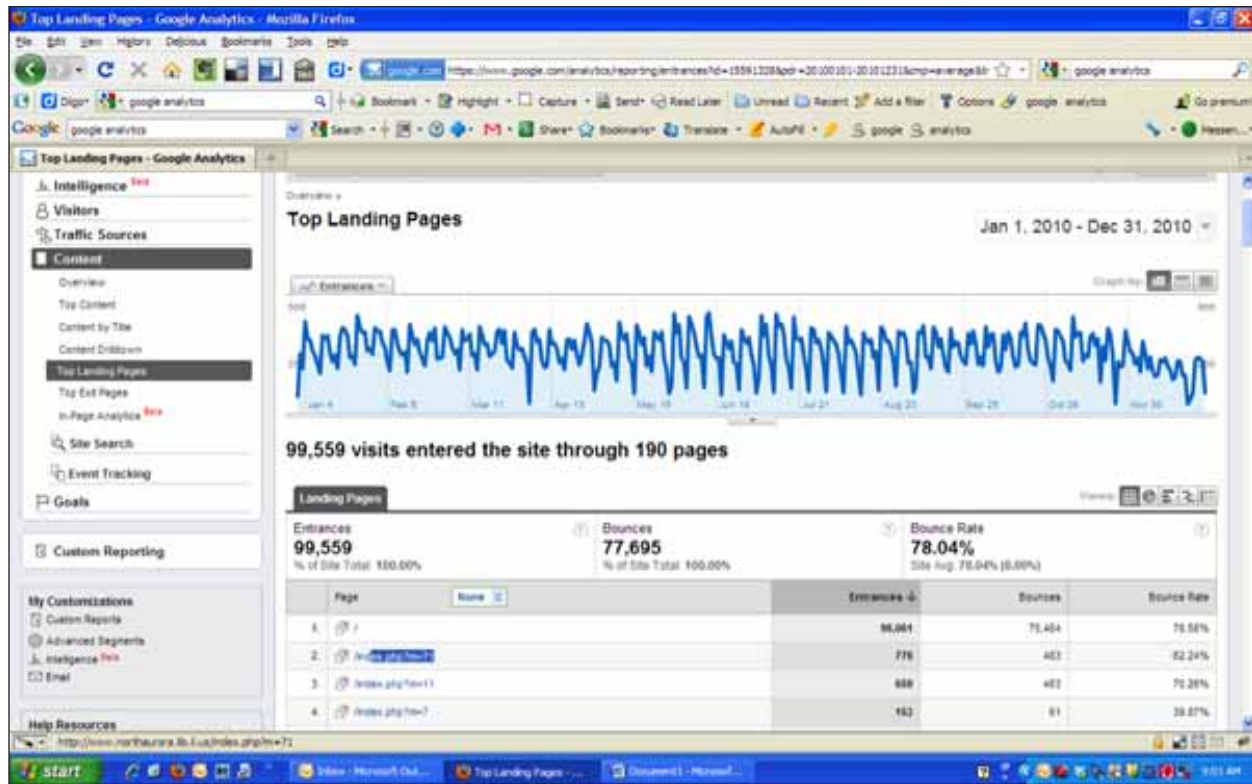
Figure 37
Top landing pages, Messenger Public Library.

of the GA reports that facilitated decisions about the website.

Figure 36 shows how GA helped us determine whether we should keep a webpage on the new site. For us, the decision was that any page that received less than 10 hits per year did not serve a purpose and was deleted. We did not receive any complaints about content that had been removed.

Top landing pages (figure 37) revealed how people entered the site on a particular page. Because the keyword report told us what people were searching to land on our site, we determined that the top three landing sites were accessed via bookmarks or direct links and not via searching. In the new design we used this data to determine where to locate a particular page and how many levels into the website it existed.

The keyword report (figure 38) informed us how people are finding Messenger's website. Item 132 showed us that some people had an interest in where the name Messenger came from. In response to this, we created a page under About Us with the history of Messenger Public Library and on founding librarian Emeline Messenger.

The exit pages report (figure 39) report informed us from which pages people are leaving the site. In other words, the data here may tell us if people are frustrated and quit looking for something or if they find what they are looking for. The data showing the top few exit pages revealed that people found a library database or library catalog and left the site, hopefully after finding the item they were seeking.

The visitor loyalty report (figure 40) revealed that 20 percent of our visitors come one time and never return. Some of this may be accounted for by their using a different computer, but the bigger question is what they are not finding such that they never return.

The mobile devices report (figure 41) was used to determine whether we should develop a mobile version of our website. We decided that 1 percent of total traffic did not warrant a mobile site. However, we will continue to watch for growth in this area.

I used the operating systems report (figure 42) to determine the need for the library to support Apple products. As a result of this data, I made the case that we needed to offer Mac computers to patrons as a growing number of our users were using Macs.

My advice for using GA is simply to play and explore the rich data available in this wonderful tool. In terms of a redesign, GA takes a lot of guessing out of the equation because it provides hard data that helps you understand your users and that justifies action for improving your website.[3]
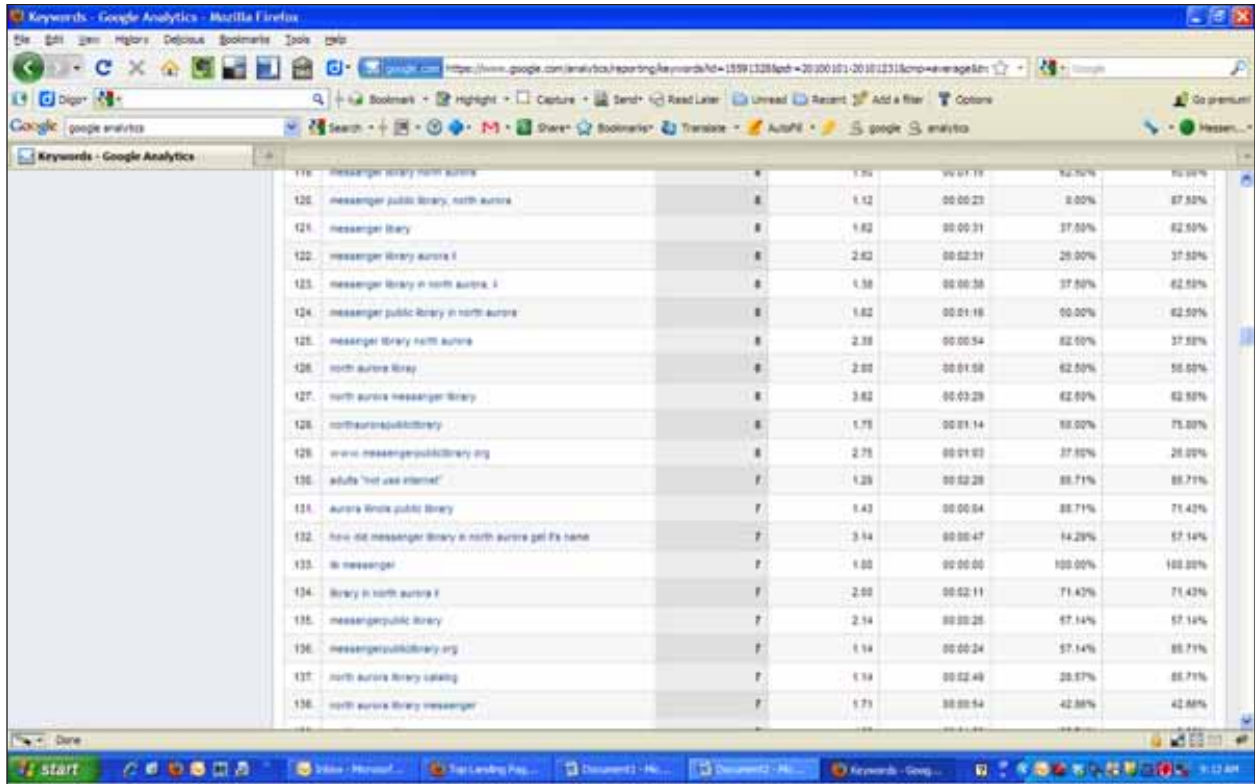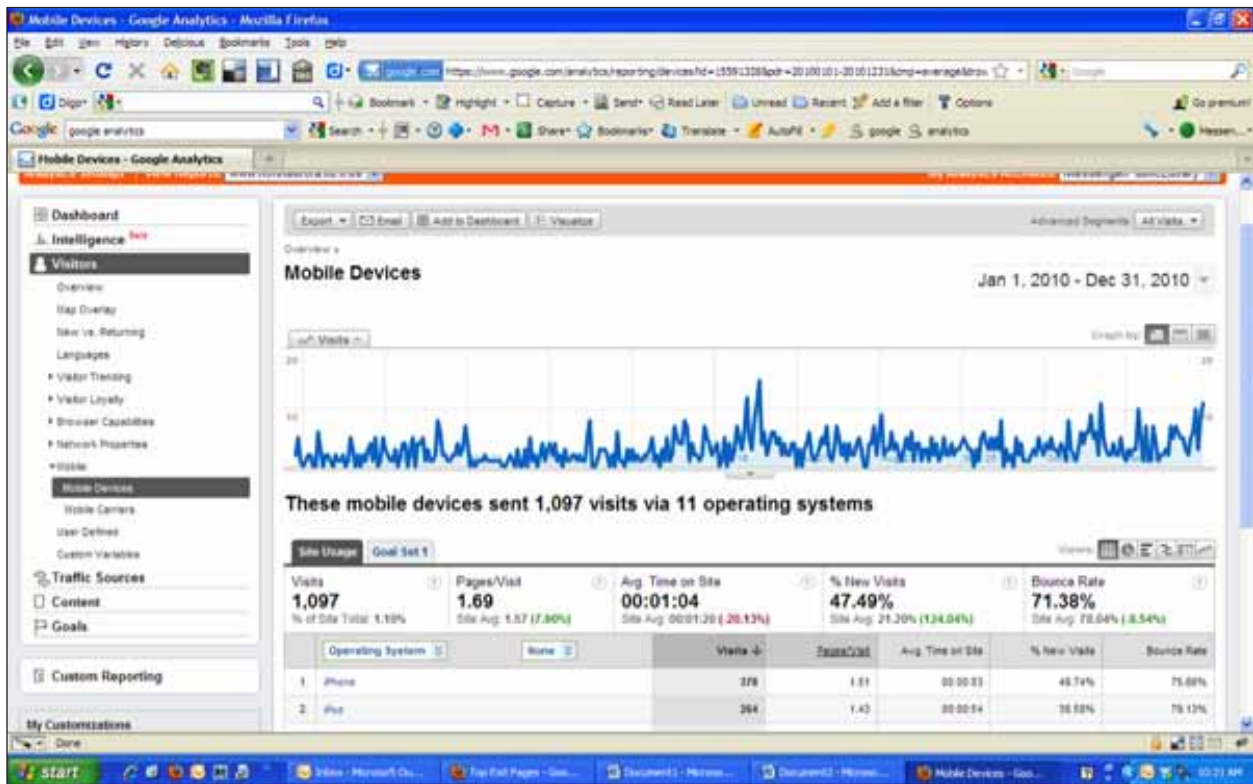
Figure 38
Keyword report, Messenger Public Library.
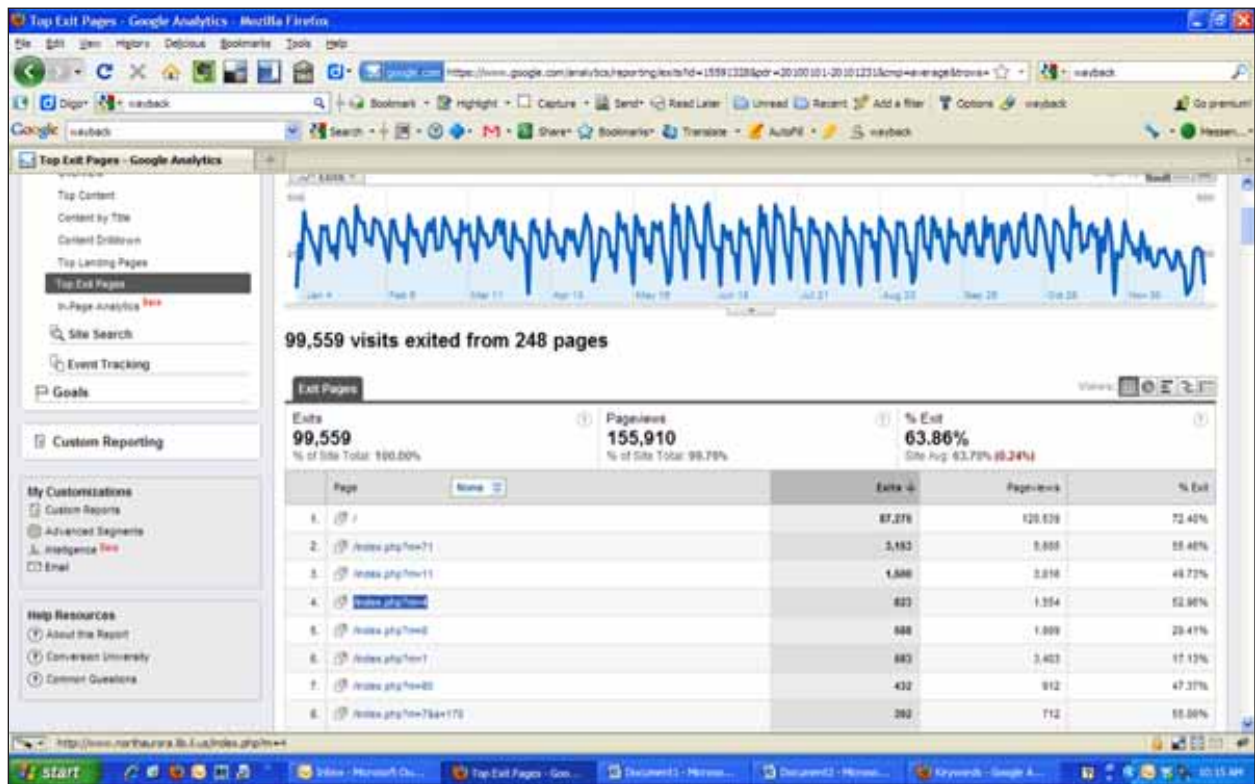
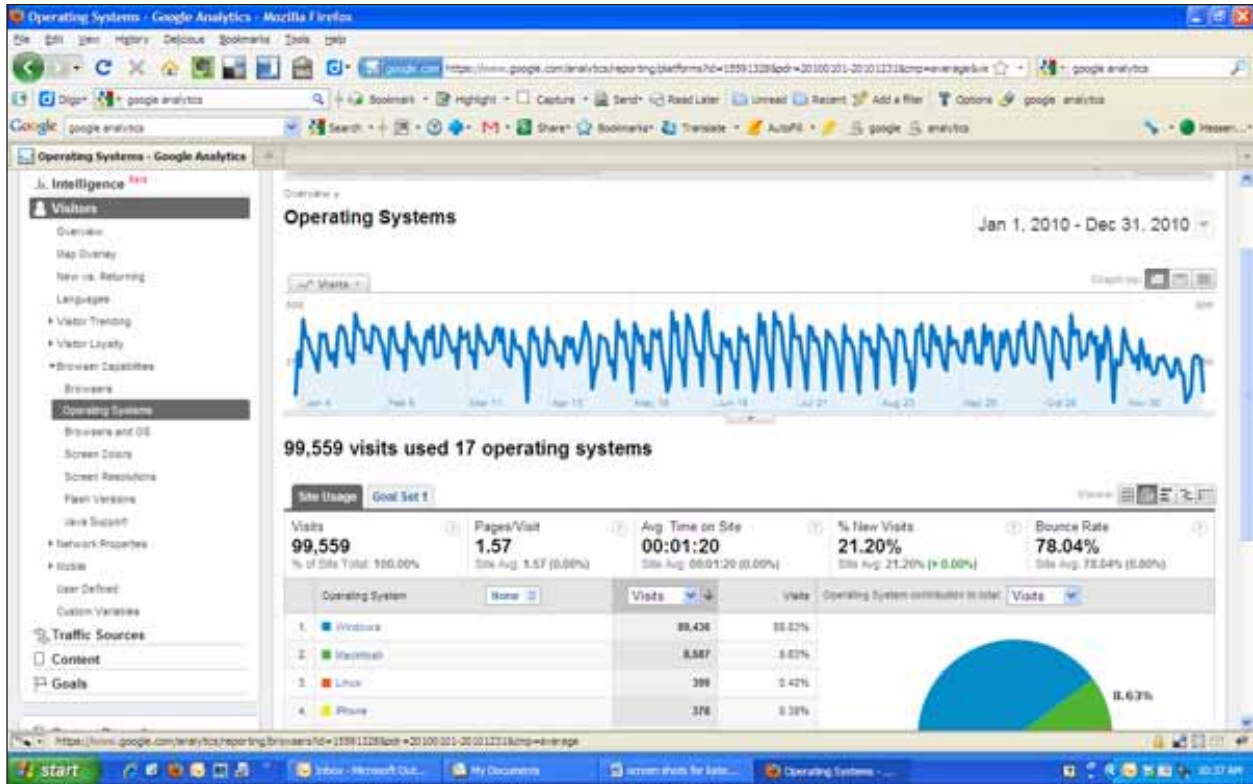

Figure 39
Exit pages report, Messenger Public Library.

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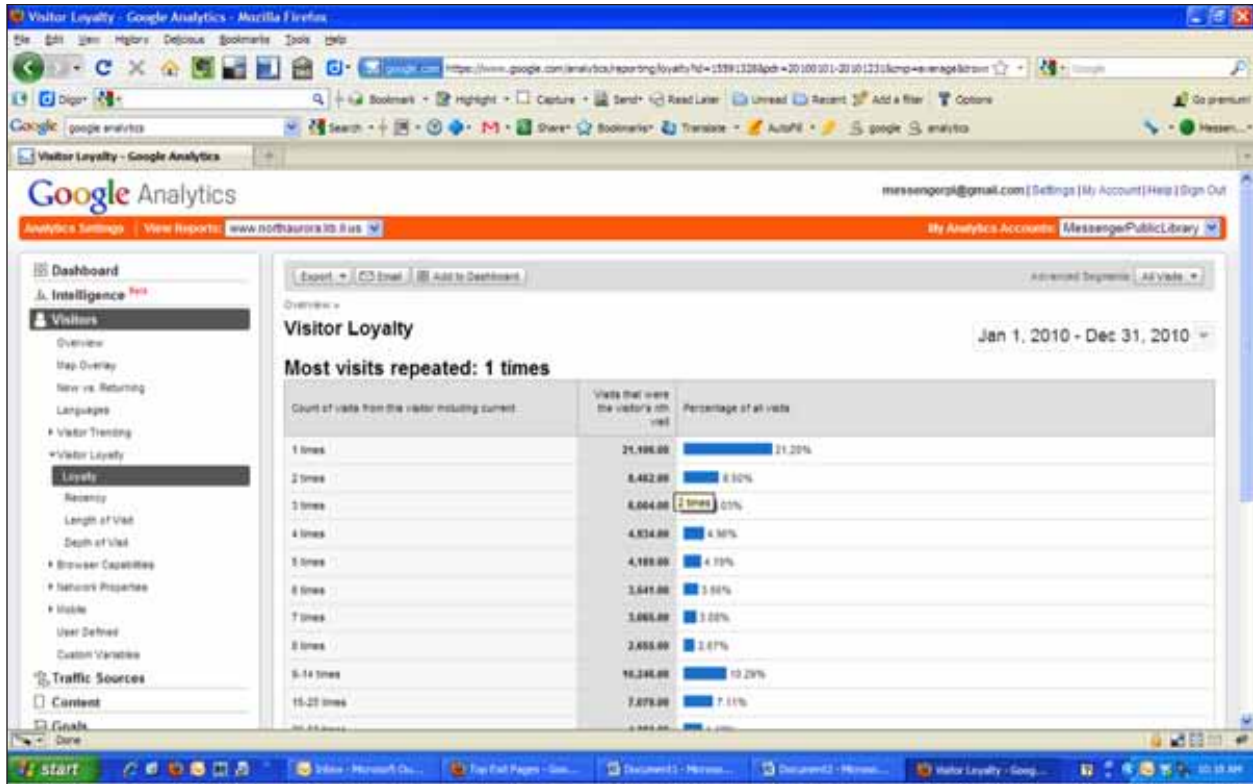
Figure 40
Visitor Loyalty Report, Messenger Public Library.

Figure 41
Mobile devices report, Messenger Public Library.

Figure 42
Operating systems report, Messenger Public Library.

WEBJUNCTION

Sharon Streams

WebJunction is an organization that provides online educational resources for libraries and librarians. On its website, library staff "discover resources, attend programs, take courses, and share their knowledge."[4] The following information about the WebJunction staff use of Google Analytics is from staff member Sharon Streams.

WebJunction
www.webjunction.org

We use Google Analytics for basic web analytics functions: to track overall site traffic trends, to see which pages and sections of the site are most frequently visited, to measure how effectively our communications drive traffic to the website, and to identify other websites that are referring visitors to our website.

Some of the particular metrics we find helpful are:

- **Top Traffic Sources:** It's useful to use to see the number of visits to the website that originate from our newsletters or from social networking sites such as Twitter or Facebook.
- **Top Content:** We watch which pages on our site are visited most frequently.
- **Visits/Visitors/Page Views per Month:** We compare these numbers from month to month and from year to year, to track seasonal trends and overall growth or decrease in use of our website.
- **Site Search terms report:** More recently, we implemented site search tracking so that we can see which terms users input into our search box.

Here are some examples of insights we get from the GA reports that help us to make decisions:

- **From Search Terms report:** We note the language people are using and adjust the terms we use on the website accordingly. We also note frequently searched-for content and look for ways to improve its findability. For example, we have a page named Technical Services but notice a lot of people searching for "cataloging." We will need to do a better job of connecting people looking for cataloging-related content to the Technical Services pages, by either renaming or redescribing that page.
- **From Top Landing Pages:** We look for pages that are getting hit on that are surprising, and look for

Using Web Analytics in the Library   **Kate Marek**
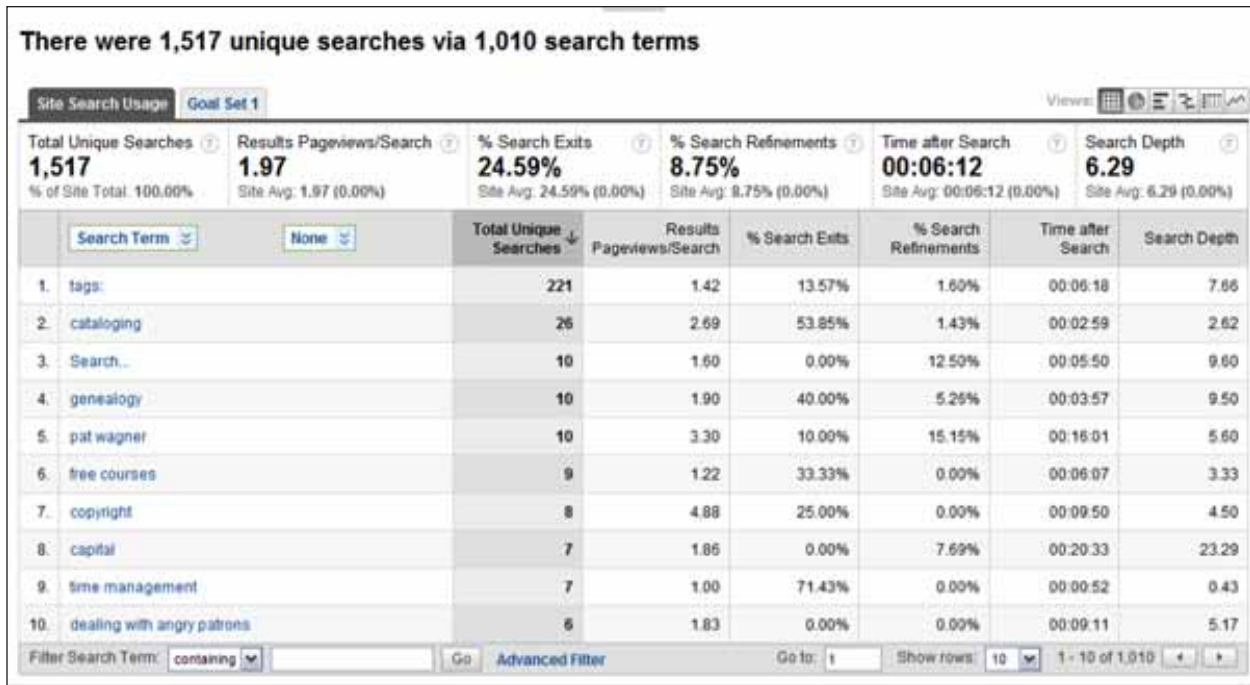
Figure 43
Top search terms report, WebJunction.
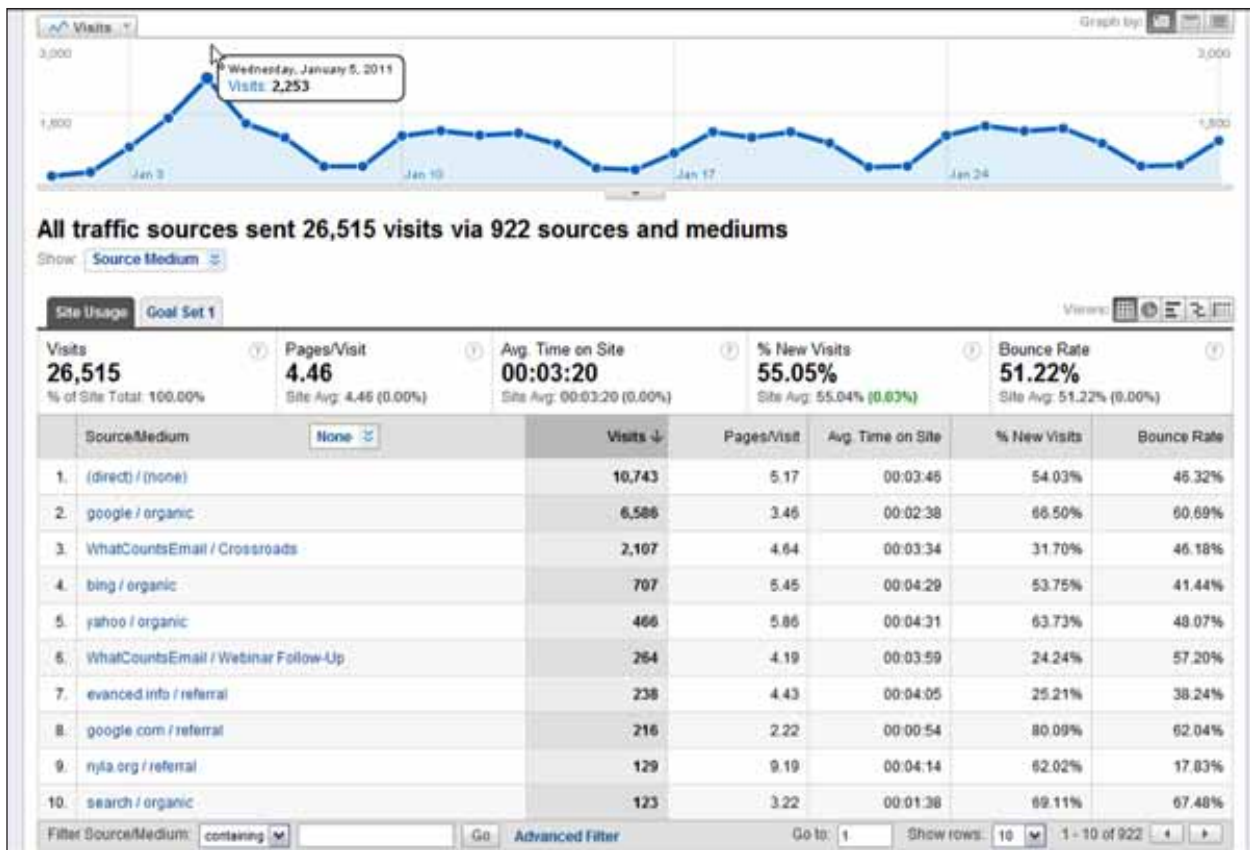
Figure 44
Traffic sources report, WebJunction.

Figure 45
Newsletter Views, Monthly Comparisons, WebJunction.

outdated information on those pages and update if needed. For example, there is an old bookmark on some library computers that takes users to an outdated page of our WebJunction. We made sure that page clearly redirects users to more current information.

- **From the Top Traffic Sources and Top Content reports:** We monitor how effectively we are using our newsletters and social networking channels to drive traffic to the website in general as well as to specific pages. As we initiate a new implementation of social networking, I can track its impact on site and page traffic.

The report in figure 43 of top search terms used on our website shows that *cataloging* is a frequently requested search. We will look at how to improve the findability of this content on the site in our navigation menus. *Genealogy* is also high on the list, and this points out a topic for which we do not have much content to offer. We will put that on our content wish list for future acquisitions efforts.

The traffic sources report in figure 44 shows a spike on January 5 that coincides with the broadcast of our member newsletter. You can see that it is the top driver (3) to our website after Google. We also get visits that come from our post-event e-mail to webinar registrants (6) and from our events calendar (7).

In the report in figure 45, we can compare the performance of our newsletter in January to the December

broadcast and see that the January issue brought 58 percent more visits to the website than the previous month. We can then assess what could be the reasons for this, such as the holiday slow period, or the level of interest in the content of the newsletter, or a combination of the two.

In general, the staff at WebJunction are able to use Google Analytics to understand their users better and to continually improve and update the website.[5]

RUTGERS-NEWARK LAW LIBRARY

Wei Fang

An example of a GA case study from the literature is the excellent review by Wei Fang of his library's 2006 website redesign.[6] Fang, Digital Services Librarian at Rutgers-Newark Law Library (RNLL), directed an analysis of website usage using Google Analytics and made suggestions for the site's redesign based on the findings. The goal of the case study was to prepare for the site's redesign by tracking the usage and behaviors of the website visitors, to review the site's existing menu system, and to make suggestions for improving the visitors' website experience. In addition to information from GA, the digital services department collected some user feedback from paper surveys and an online survey.

The Rutgers-Newark Law Library is a part of Rutgers School of Law-Newark, and the purpose of its website is to serve the educational and research needs of the school's faculty and students. The website also provides services to users outside the library's primary service community. Indeed, one benefit of using GA was that the library was able to more clearly identify its user population and thus the reach of its services.

Google Analytics features used by RNLL started with the various visual summaries presented through the GA Dashboard's weekly statistics, including how many visitors it had, how many pages those visitors had viewed, whether the visitors were new or returning, where they were coming from, and what search engine the visitors had used to find the library. Fang wrote, "This 'digital dashboard' feature greatly enhanced our productivity, since we didn't need to spend a lot of time reading numbers and analyzing data. It also provided powerful evidence to convince other librarians and administrators of the necessity of making changes to the website."[7] Fang and his staff also looked at trends over time to compare data from different date ranges, as well as the Defined Funnel Navigation feature to gauge the number of people who followed the navigation path the librarians had set. Two more GA features Fang used were the Site Overlay and Visitor Segmentation. Fang could look at one of their most frequently viewed pages

and then drill down through GA to see the visitors' geographic locations as well as the keywords those visitors had used to find the RNLL site. Fang also used the data export feature, noting that the exported data could be combined with other statistical software for further analysis and institutional comparisons.

Findings from the GA data included the visitors' typical connection speeds, browsers used, percentage breakdowns of screen resolutions, page layout issues associated with usage and access, visitors' clickpaths, geographical segmentation of users, and overall data regarding specific page popularity. Wang and his staff reviewed and analyzed these data points to inform their site redesign. Here are some of the decisions they made based on the data:

- Based on their review of users' connection speeds, screen resolutions, and browsers, the website staff kept the basic layout and design of the site. At the time (2006), enough visitors were still using lower connection speeds to demonstrate a need to keep heavy graphics at a minimum. Site testing in the browsers most visitors used revealed a good level of compatibility with the visitors' use and the existing design, including JavaScript and CSS.
- The staff added a Most Viewed Items section to the site's right-hand menu. While GA reports showed that certain pages were routinely among the most visited, drilling down into the statistics of these reports showed that most people found those pages via search engines. By putting links to the popular pages on the site's main menu, the librarians were better able to promote the content and enhance its use. At the same time, the librarians were able to target other digital collections that users frequently visited when they left the RNLL site (see the guide to the GA Event Tracking tool), so the staff added external links to these sites for their users. One menu item the staff had considered important was very rarely used, so they eliminated it and used the space differently. In general, the RNLL team reorganized and refurbished their menu system based on information about the users' behavior coming in to their site, while on their site, and when leaving their site.

> *GA Event Tracking Guide*
> http://code.google.com/apis/analytics/docs/tracking/eventTrackerGuide.html

Statistics captured before and after the redesign showed success in many areas. Adding a link to the Most Viewed Items resulted in a 30 percent increase in traffic for those pages. Providing links to popular external content, such as the New Jersey Digital Legal Library

Figure 46
Accessing Facebook Insights

Figure 47
Exporting Facebook data by date range

website, increased their referrals to that website by 23.4 percent. And increased usage statistics demonstrated that the overall changes to the menu system also proved to be highly successful. In general, the website had more new and returning visitors, and visitors viewed more pages while on the website (demonstrating greater engagement with the content). Fang reported broad satisfaction with GA and the ability of the Digital Services department to use the GA data for critical insights toward a successful redesign of the website.

Social Media Metrics

An aspect of your digital branch usage that will not show up in your analytics report is the activity within your various social networking sites. This activity is an important

aspect of your web services program and should be monitored in much the same way your main website is monitored—looking for actionable insights. Watch for increases in activity associated with specific promotions and events, and include your social networking activities in your qualitative assessments and user studies. Look for ways to assess the *quality of interaction* with these social networking tools rather than just the quantity.

You can use free third-party tools such as allfacebookstats.com and twittercounter.com to collect social media metrics. However, library technology expert Dawne Tortorella suggests instead using the more stable embedded metrics within the specific social networking sites:

> Measuring growth in Twitter followers, Facebook fans, YouTube channel subscribers, or
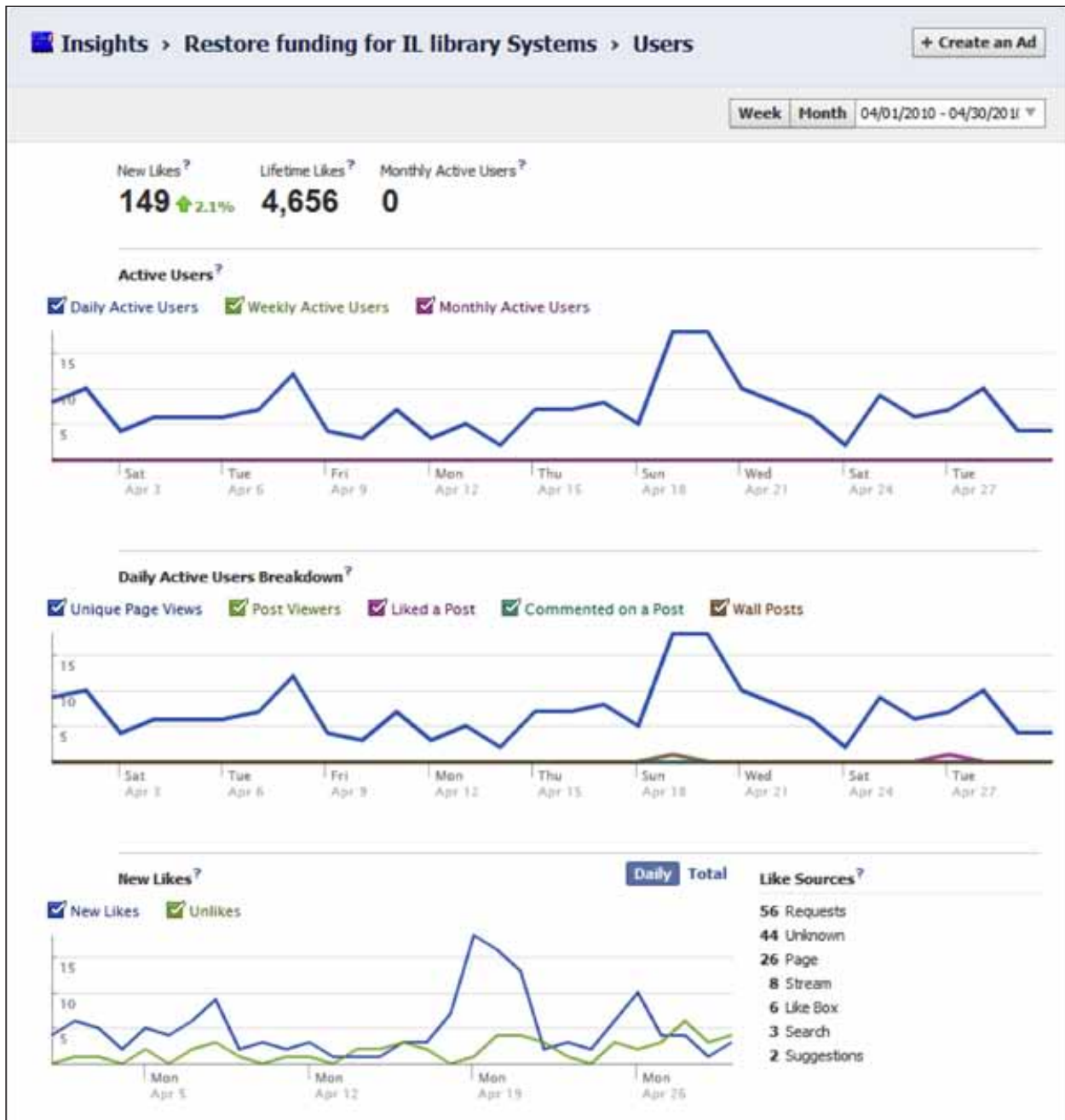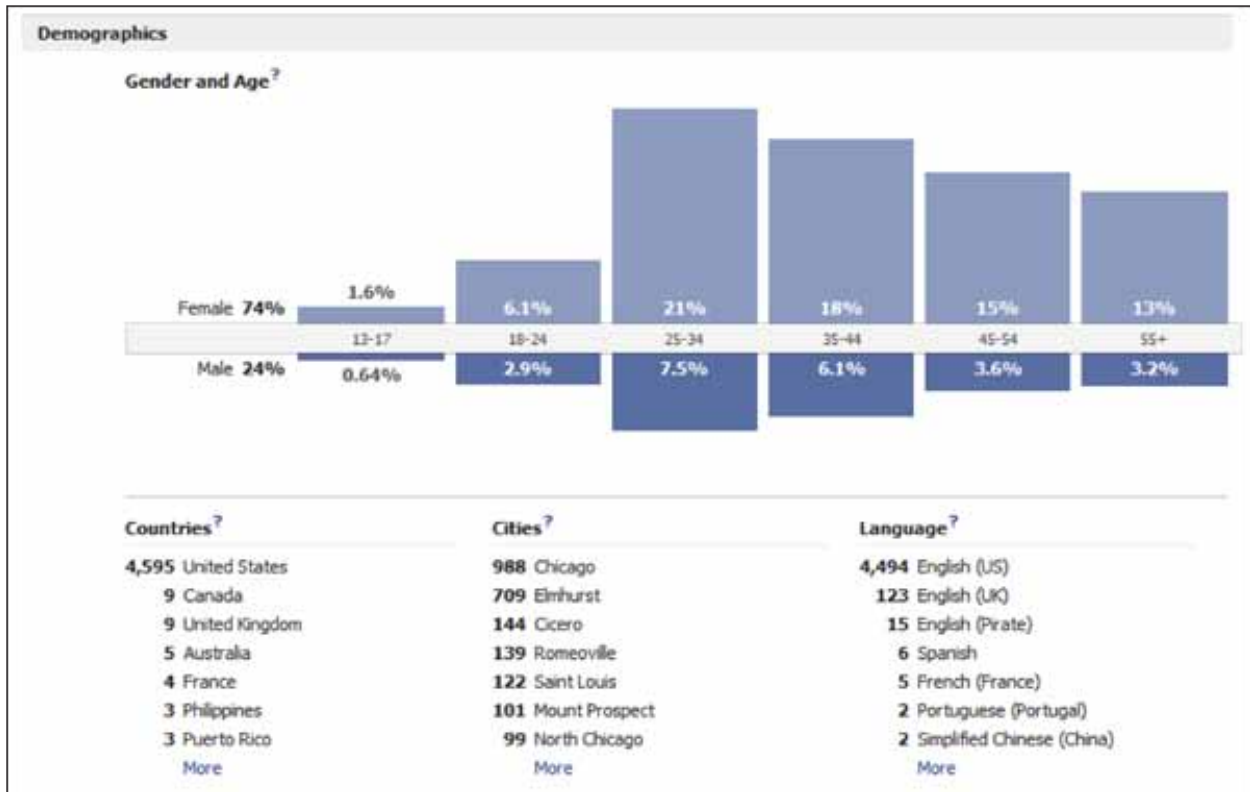
Figure 48
Facebook User Data

Flickr contacts requires consistent monitoring of measurable data and noting significant activity which drives that data. Direct metrics from the site are important; you may gain information from your analytics program such as whether your visitors came to you from a social media site or whether they followed one of your links to a social media site, but will tell you little else. Collect metrics for those social media platforms you actively include in your outreach, communication, and service activities.

A good way to keep track of your social media activity is simply by creating a local spreadsheet and updating it on a regular schedule (preferably weekly, at a consistent time). Use a standard spreadsheet such as Excel as the tool allows for future analysis, chart creation, and trend analysis. In addition to the suggestions below for individual social metrics tools, keep a special comments

Figure 49
Facebook User Demographics breakdown

field where you note specific dates and significant actions that could have affected statistics, views, and interaction on your social media sites.[8]

Examples of data to collect and source for the data include the following:

Facebook

Data collected from Facebook Insights data download:

- Unique Users—The number of people who have interacted with or viewed your page or its posts. This includes interactions from fans and non-fans
- New Fans—The number of new people who have liked your page
- New Unlikes—The number of people who unlike your page
- Total Fans—The total number of people who have liked your page
- Total Unsubscribers—The total number of users who have hidden your app or page in news feed
- Likes—The number of likes made on news feed stories posted by your page
- Comments—The number of comments made on news feed stories posted by your page
- Discussion Posts—Discussions created on your

page's discussion board
- Wall Posts—Wall posts to your page's wall

See the section "In Depth: Facebook" below for a more detailed description of gathering Facebook statistics.

Twitter

Data collected from Twitter feed:

- Followers—The number of people following your account
- Following—The number of accounts you are following
- Tweets/Posts—The number of items posted
- Mentions—The number of times your organization or Twitter account were mentioned (derived through a search and tally based on time period)
- Retweets by you—The number of posts you retweeted
- Your tweets, retweeted—The number of your posts that were retweeted
- Twitter grade—Produced by Twittergrader.com

YouTube

Data collected from YouTube:

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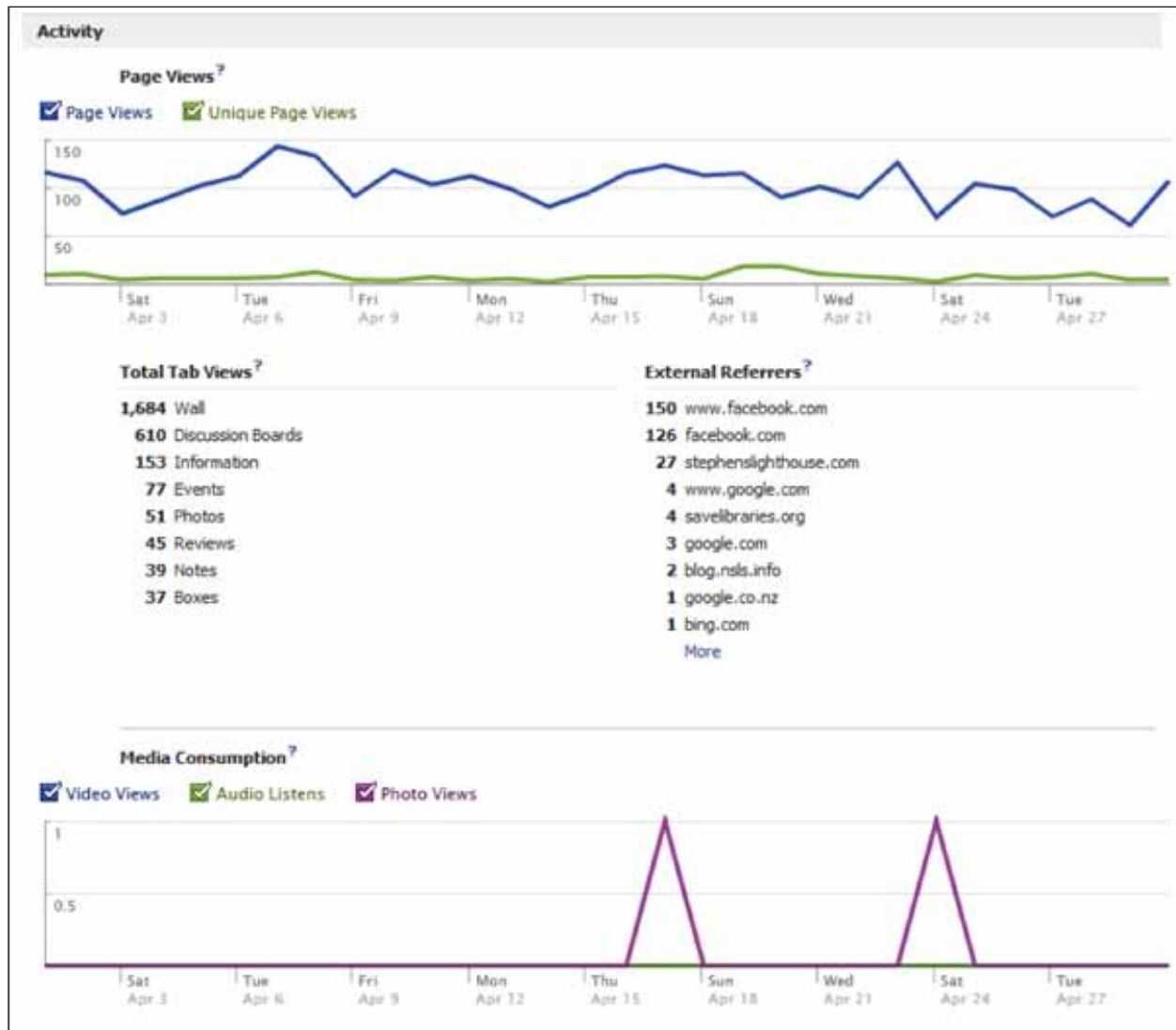
Figure 50
Facebook Activity Statistics

- Subscribers
- Comments
- Channel views
- Individual video views
- Total video count

Flickr

Statistics activated within Flickr:

- Views
- Most viewed images
- Contacts

By default, Flickr statistics are not activated, but can easily be turned on. To activate Flickr statistics, go to your Flickr home page. To the right of "Your Photostream" you will notice a chart graphic. Click on that graphic and then "Activate your stats." Notice trends in tagging level and traffic to your images. The more organized, tagged, and fully described the photo, the more traffic it will attract.

In Depth: Facebook

The following screenshots illustrate the tools available within Facebook for tracking Facebook pages. All Facebook administrators of the page have access to "Facebook Insights."

Access Facebook Insights by logging in to your Facebook account and then visiting the Facebook page you administrate. Admins will see the link "View Insights" for exporting and viewing page statistics. Note: Facebook Insights are only activated

once a page has 30 fans, so you need a small fan base in place before you can use Insights.

Insights provides a date range interface that can be modified for any recording period. Once selected, you can export the raw data for detailed analysis. The statistical charts and graphs are helpful for the big picture. The exported data is extensive and can uncover additional trends and usage of your Facebook page.

The following screen view shows the active users of the page, as well as a count of fans. It indicates if the fan base has grown or declined. It further illustrates the engagement level of users including page views, comments, and likes.

The user breakdown can provide helpful information in determining whether you are reaching your target audience. For example, a public library would hope to find a large population of people from the cities they serve. A view of the gender and age breakdown, and tracking over time, will identify changes in the Facebook user demographic.

Activity statistics display page views, as well as unique page views. You will be able to determine exactly what area of the Facebook page is being accessed (wall, discussion boards, events, photos). Analyzing these individual views will identify targeted messaging. The external referrers identify the sources of traffic referral to your Facebook page. The synergy between your social media platforms and your web properties should become apparent when reviewing this data. In addition, this information can help identify good partner institutions and organizations within your community for cross-posting and sharing.

In a nutshell, collection of social media analytics requires a combing of the data through either manual means (counting and recording) or through use of the statistical dashboards provided by the service. Knowing these actions and their impact, both in volume and in immediacy, will help in the analysis of your social media presence.[9]

Summary

All of these case studies taken together provide ideas, examples, and confirmation of the potential for library websites and their designers when using web metrics. Librarians can look at the overall mission of the library and its website, and begin to draw conclusions about whether that website is successful. The idea is to spend time with the data from the GA reports and from social networking sites, using the metrics to show trends over time and progress toward your goals. Partnering the quantitative with the qualitative can expand your understanding based on analytics data; as Avinash Kaushik says, if you don't understand why your users are behaving in a certain way while on your website, *ask them.* In this way, by using web analytics programs combined with your users' comments and suggestions, you can truly move from *web analysis* to *web insights.*

Notes

1. David Malone, personal correspondence with the author, March 2011.
2. Messenger Public Library, Messenger Public Library Technology Plan, 2010–2013 (North Aurora, IL: Messenger Public Library, 2011), 1.
3. Anthony Molaro, personal correspondence with the author, March 2011.
4. "About Us: Services for Library Staff," WebJunction website, www.webjunction.org/about (accessed March 25, 2011).
5. Sharon Streams, personal correspondence with the author, March 2011.
6. Wei Fang, "Using Google Analytics for Improving Library Website Content and Design: A Case Study," in "Libraries and Google," special issue, *Library Philosophy and Practice 2007* (June), www.webpages.uidaho.edu/~mbolin/fang.htm (accessed March 10, 2011). Material for this case study review comes solely from this publication.
7. Ibid., 5.
8. Dawne Tortorella, personal correspondence with the author, April 2011.
9. Ibid.

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