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Website Usage Statistics: What You Need to Know

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March 2006

Document History

Version	Author	Comments
v1.0	Neil Turner	Initial Release
v1.1	Neil Turner	Edited and Expanded Version

1.   Introduction

When developing, hosting and maintaining websites, we at Lucid regularly present our clients a summary of the latest usage statistics for their websites. We often find, however, that the jargon and technical concepts need to be explained in detail before our clients can gain a proper appreciation of the significance of the statistics.

This document is intended as a "cheat sheet" to help you understand the various terms, their meanings, and (most importantly) the *significance* of each.

2.   What Do I Want to Know?

Website analytical tools record a great deal of information about what people are doing on your site. However, most of the time there are only a few things you really want to know, such as:

- How many people are coming to my site?

- How extensively are people **using** my site?

- Which parts of my site are people most interested in?

The statistics that answer these questions are the ones on which we'll be focussing.

Another important question is: What *can't* the statistics tell you? It must be acknowledged that web servers do not (and in most cases cannot) gather certain kinds of information, such as:

- *Who are the people visiting my site? What are their names, how can I contact them?* It is important to realise that your computer only deals with the user's **computer**. You cannot automatically record any information about who is using that computer. In order to get personal details your site needs some mechanism by which people can register, as well as a compelling reason for them to do so.

- *What, exactly, do they do on the site? Which pages do they visit first, which ones do they only get to later?* Standard website analysis packages are insufficiently powerful to gather information at this level of detail, and those that have the power tend to be expensive.

3.   Hit Count vs Page Views vs Visitors

Perhaps the most important fact I want you to take away from this paper is this: ***Hit Count is a meaningless statistic!***

A lot of website administrators like to quote their site's Hit Count, suggesting that a high number of hits equates to a heavily-used site. Unfortunately, this is simply not the case.

A Hit is a request made by a client application (your web browser) to the server for a piece of page information. This information can be an HTML document from the website, or an image, or a video clip, or any kind of file. What we think of as a "page" of a website is made up of many such page elements. Consider the example of the Lucid Communications home page, below:

This page contains six images. It also includes a Cascading Style Sheet document and a small JavaScript file. So every time a user visits this page, the server will count not one but *nine* hits.

The implications of this are obvious: A page that contained no images and no external documents would have to be visited nine times to generate the same hit count as one visit to this page. And nine is actually a low number of Hits for a page to return – one visit to the home page of http://www.yahoo.com yields 27 Hits, while a visit to http://www.amazon.com generates 54.

Clearly, trying to use the Hit Count as a guide to site usage is nonsensical. Does a high Hit Count mean lots of users, or "heavy" pages? You just can't tell!

So which usage statistics should you be looking at? There are three that we recommend: Page Views, Visitors, and Unique Visitors.

3.1.   Page Views

For purposes of comparison to other sites, you need a statistic that increments just once when a page of your website is visited. There is one, and logically enough, it's called **Page Views**.

The total number of Page Views can be a useful statistic in assessing how heavily your site is used. In addition, most website logs track Page Views according to *which page* was viewed, so you can use Page Views to discover which pages are most popular with your users.

3.2.   Visitors

Counting the number of Page Views is all very well, but that alone won't tell you everything you need to know. For instance, if your site records 200 Page Views, was that one person looking at 200 pages or 200 people each looking at one page?

Fortunately, website logs also record a statistic called Visitors, which increments once each time someone visits the site, but ignores any other activity by the user during that visit.

3.3. Unique Visitors

If you are running a useful website, lots of your users will come back time and again to check new information. It often helps to be able to know how often this is the case, and how many *different people* are visiting your site. This is where Unique Visitors comes in.

Unique Visitors is basically the same as visitors, with the extra condition that repeat visits by the same Visitor are ignored. Comparing the ratio of Visitors to Unique Visitors is a useful way of telling how frequently the average user comes back to your site.

The one limitation of the Unique Visitors statistic is that the website actually counts the number of *computers* that visit it. As a result, if your users regularly share computers the number of Unique Visitors recorded will be lower than the actual number. On the other hand, one user visiting from several different computers (a computer at home and another one at work, for instance) will be recorded as two separate visitors. As a result, the Unique Visitors statistic should never be considered anything more than an estimate.

One more thing that you need to take into account is that a substantial portion of the visitors to your site aren't people at all – the major search engines (Google, MSN, Yahoo, Ask, etc) and various other groups use "robots" to scan websites for content. These scans can happen several times a day, but since no actual person is involved, we strongly believe that they shouldn't be included in your site's Unique Visitors count. When looking at a site's published statistics, it is always worthwhile to check that this is the case.

4. Other Useful Statistics

Website log analysis can provide a wealth of information about the usage of your website. Depending on your circumstances, some statistics may be more useful than others.

Some of the statistics that may be of use to you include:

- **Average visit duration** – the estimated average time a visitor spends on your site. This time is only an estimate because it records the time between a visitor's first action on the website and his/her last. However, the website cannot measure how long a user spends actually reading a page – so if he opens a page and then goes and has a cup of coffee before browsing to the next page, the website will consider him active for the entire time he was away. Conversely, if he opens a page, spends twenty minutes reading it, and then closes it without ever browsing to another page on the site, the website will record virtually no time at all.

- **Search Keywords** – the words and phrases people have used on search engines to find your site. These are the words that people associate with your site, so it can be very useful in helping you decide what sort of content you need.

- **Incoming Links** – a list of websites that link to yours, with a count of how many visitors have arrived by using these links. Knowing some other sites your users like to visit can tell you a lot about them.

5.   In Conclusion

To sum up, if you want to know have many people are visiting your site, look at Unique Visitors. If you want to know how often the same person comes back, compare Visitors to Unique Visitors, and if you want to know how extensively people use your site while they're there, compare Page Views to Visitors. This will give you a valid and reasonably accurate measure of how much your site is being used.

Lastly, remember: Hit Counts, whilst sounding big and impressive, are actually meaningless. If someone comes to you boasting about their large Hit Count, all they're actually telling you is that they don't understand website statistics!