IMLS "What Clicks?" Findings:
Web Statistics

I. How this research was conducted

Since March of 2000, the Minneapolis Institute of Arts has kept a weekly tally of visits to its two Web sites, www.artsmia.org and www.artsconnected.org. This tally tracks the number of *user sessions*[1] logged on our Web servers, generated by commercially available software, analyzed and reported by a member of the Interactive Media Group. Other information recorded includes session duration, country of access (where known), Internet Service Provider (ISP), etc. As the IMLS "What Clicks?" research project deals extensively with how the Institute connects to its audiences via the Web, these records were an obvious source of information regarding the Web site's use and — potentially — changes therein.

To this end, the Institute has examined its Web logs in the following manner:

1. For each week of available data, determined the average usage (user sessions) based on a trailing 13-week average (roughly, trailing quarter average).
2. Based on growth patterns prior to the IMLS "What Clicks?" study period, predicted average traffic for September 2002-September 2003.
3. Compared actual and average traffic for the study period to these predictions.

II. Key Findings

- No change in duration of visits to www.artsmia.org
- Growth patterns remained consistent with historic trends
- Internal publications may influence traffic patterns within www.artsmia.org

[1] A *User Session* is defined as a period of continuous activity on a Web site based on unique IP address, and provides a rough idea of how many times a resource was accessed over a given period of time. Other common measurements of use are *visitors* (essentially the number of unique IP addresses which accessed a resource) and *hits* (the number of file accesses recorded for a Web resource). Since many ISPs deliver content through *proxies* (dedicated servers that access files and store them in memory to be delivered to multiple end-users at disparate IP addresses), the Minneapolis Institute of Arts believes user sessions are a more reliable measure of use. However, see the section on "Limitations."

III. Limitations

There are two basic limitations which must be kept in mind when interpreting the Institute's Web statistics:

1. User Sessions, while a fair gauge of actual Web traffic, are not a perfect measurement. The widespread use of proxy servers (see footnote 1) — which masks the number of unique visitors to a Web site — also can interfere with an accurate count of user sessions themselves. For example, two visitors using AOL may access www.artsmia.org concurrently. If their ISP routs them through the same proxy, they will be counted as one user session until both have finished using the site, as our Web site only sees continual access through the one proxy server — not two individual computers accessing www.artsmia.org. This leads to an under-reporting of sessions and over-reporting of duration. However, it is assumed for this study that the effects of such technical limitations are relatively constant.

2. The Web site itself is a "moving target," constantly changing in size and scope, along with its audiences. While some changes to www.artsmia.org and how it is promoted to the public were made during the study period with specific study-related goals in mind, a myriad of other changes continued to be made in the course of general operation. It is impossible to effectively "freeze" a dynamic Web site such as the Institute's. Thus, determining the effect of any specific change is difficult unless the effect itself is fairly large in magnitude.

IV. Detailed Findings

1. No change in duration of visits.

Records show that the average user session length during the study period (October 2002-September 2003) remained on par with that of the previous year (October 2001-September 2002) — about 10:30. For comparison, average session duration from October 2000-September 2001 was 9:38.

October 2000-September 2001	578 seconds (9:38)
October 2001-September 2002	630 seconds (10:30)
October 2002-September 2003	627 seconds (10:27)

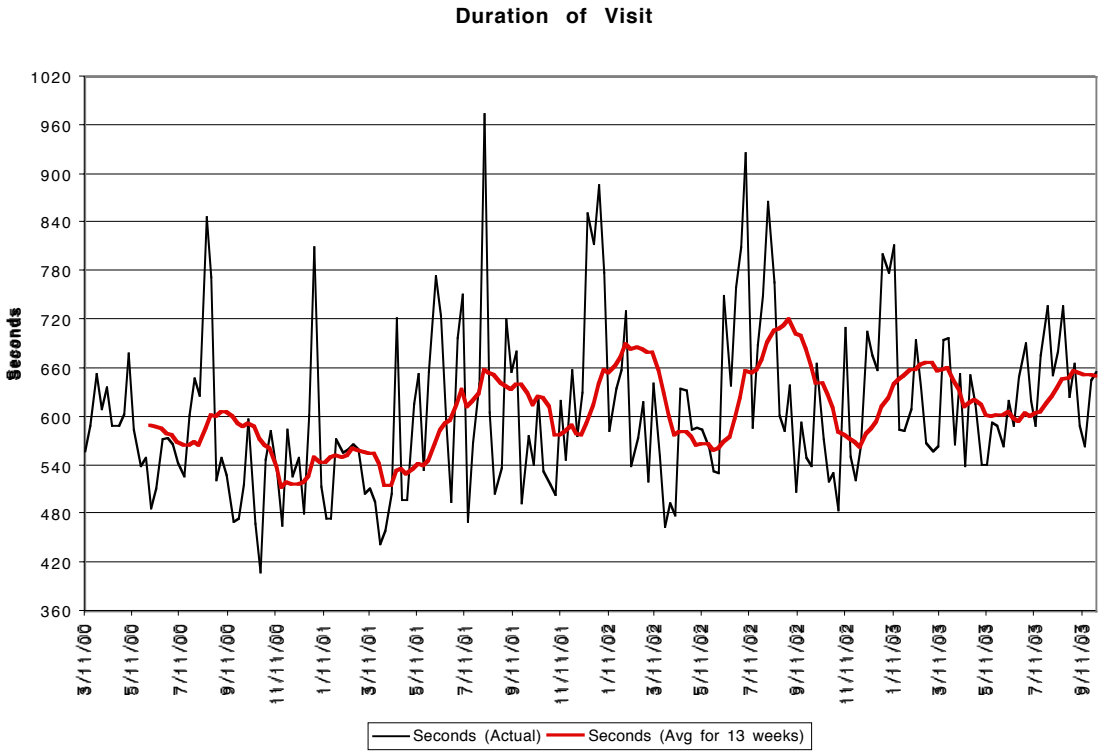
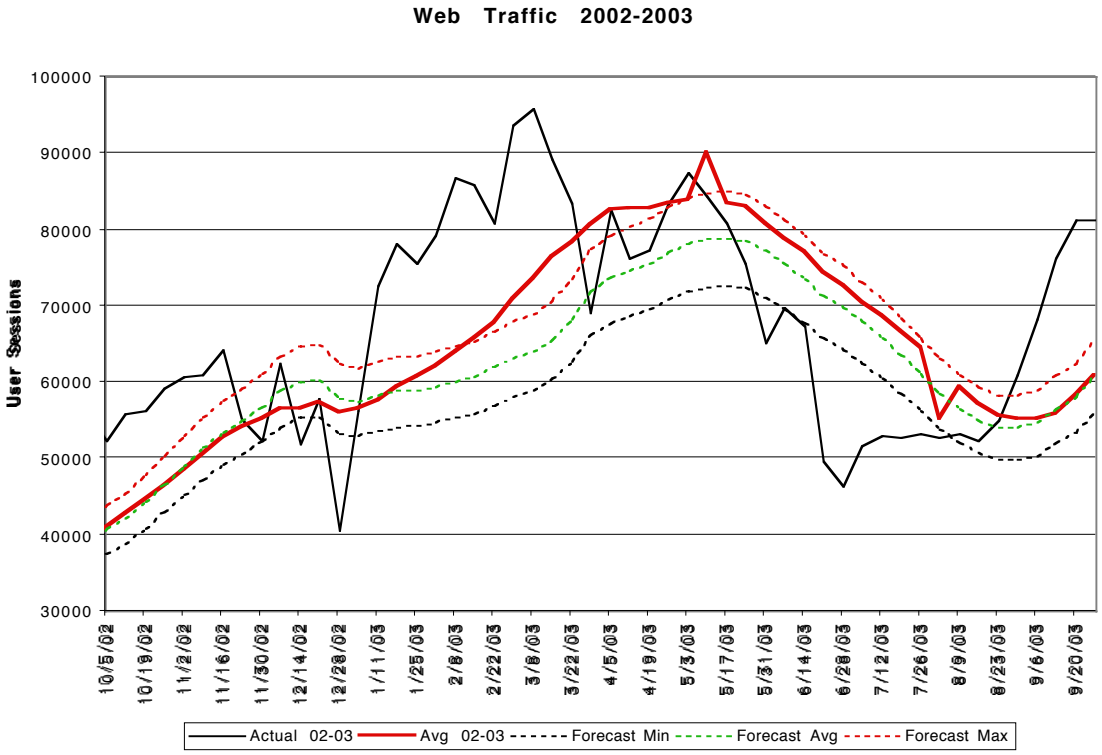


Chart 1: Duration of site visit to www.artsmia.org (in seconds)

2. Growth patterns remained consistent with historic trends.

From October 2002-September 2003, average Web site usage varied from -6.34% to 14.04% of "predicted" traffic (based on 2001-2002 patterns; see Chart 2). While indeed demonstrating a positive growth trend (from 53% per annum to 61%), the differences recorded neither were significant enough nor timed to coincide with any identifiable changes made to www.artsmia.org or its marketing plan. The main period of "better than average" growth during the study period (roughly January-March 2003) in fact corresponds to a similar period in the previous year, hinting that this may be part of www.artsmia.org's cyclical usage pattern (see Chart 3).



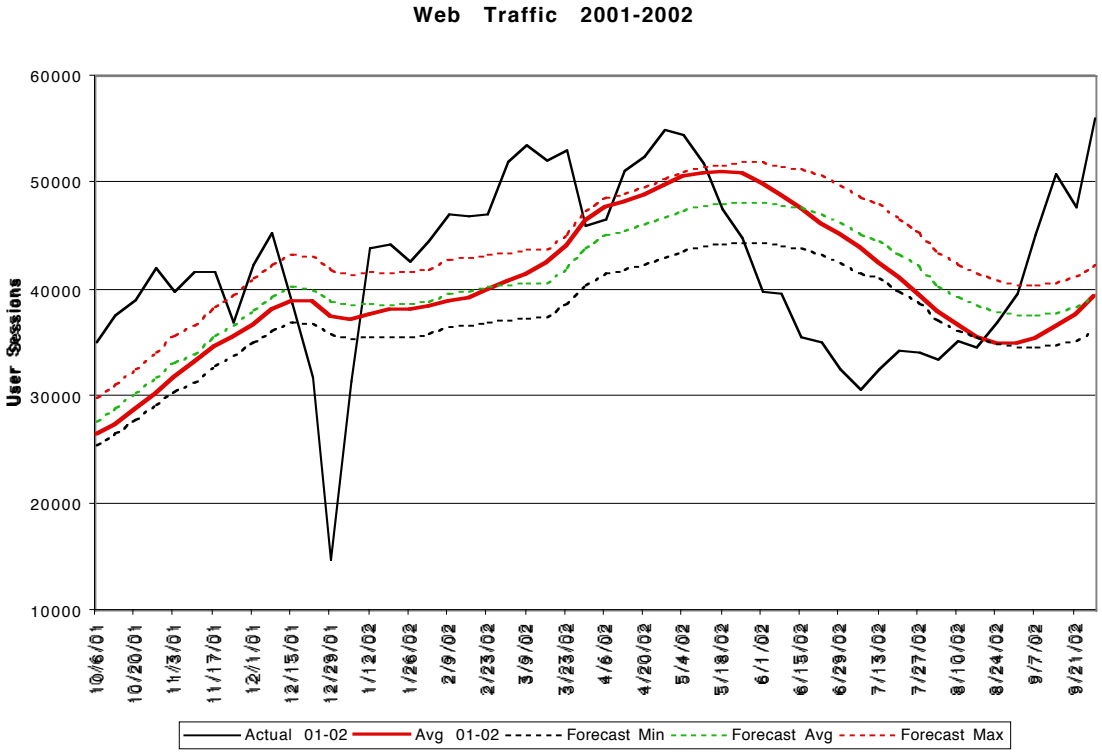


Chart 2: Actual, average, and predicted ArtsMIA Web traffic for 10/02–9/03
Chart 3: Actual, average, and predicted ArtsMIA Web traffic for 10/01–9/02

3. Internal publications may influence traffic patterns within www.artsmia.org

In February of 2003, the Institute made available 8.5" x 4.25" "rack cards" near Interactive Learning Stations (ILSs) showing where these programs are available within the museum. These cards also point out which ILSs are also available online, directing visitors to www.artsmia.org/interactive-media/ Very shortly, traffic to this section of the Web site nearly doubled, from approx. 800 user sessions per week to more than 1,500. While the rack cards made no measurable difference in overall traffic to www.artsmia.org, they clearly succeeded in directing more online visitors to this specific section of the Institute's Web site.

4. Overall history.

Chart 4 shows actual and 13-week (trailing quarter) average usage for www.artsmia.org from March 2000 through September 2003. A standard quadratic trendline is superimposed to clarify the overall growth trend for the Institute's Web site.

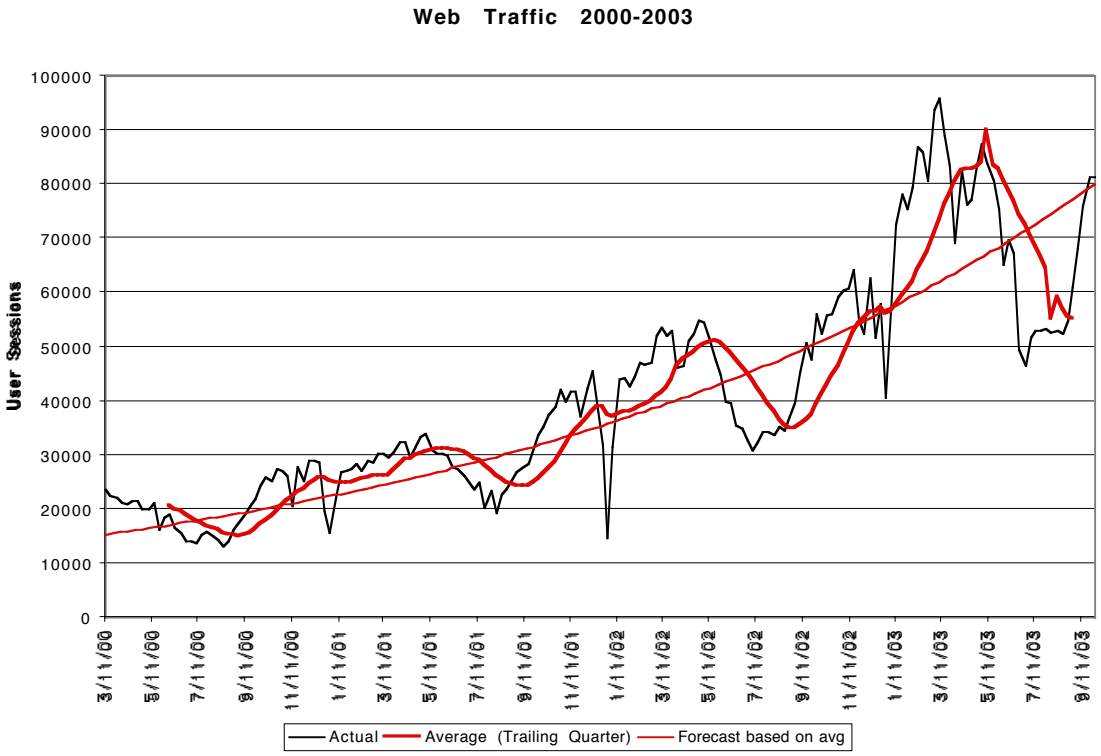


Chart 4: ArtsMIA Web traffic from 3/00–9/03

5. Deviations from Forecast

This chart elucidates the variable growth patterns for the Institute's Web site. "Predicted" Web traffic was calculated as follows:

1. 13-week (trailing quarter average) was calculated for each week from June 2003 through September 2002.

2. Change from one year to the next was calculated as a ratio of (current)/(previous year). E.g. the first week of June 2002 was compared with that of 2001, i.e. 31,143 ÷ 20,615 = 1.51 (151%)

3. The average change from one year to the next was calculated by averaging the above results, yielding 155% for the entire pre-study period.

4. This average growth figure was applied to the 13-week (trailing quarter) average for each year's traffic to yield a best-guess estimate of what the following year's usage would be.

5. Similar processes were used to determine the minimum and maximum predicted traffic, based on the minimum and maximum recorded growth from 2000-2001.

5. Reported (average) traffic was then compared to the above prediction, and deviations therefrom were calculated as a percentage.

Note that, by definition, reported traffic for the year prior to the study (see Chart 3) will be within the predicted minimums and maximums, as the reference is in effect circular.

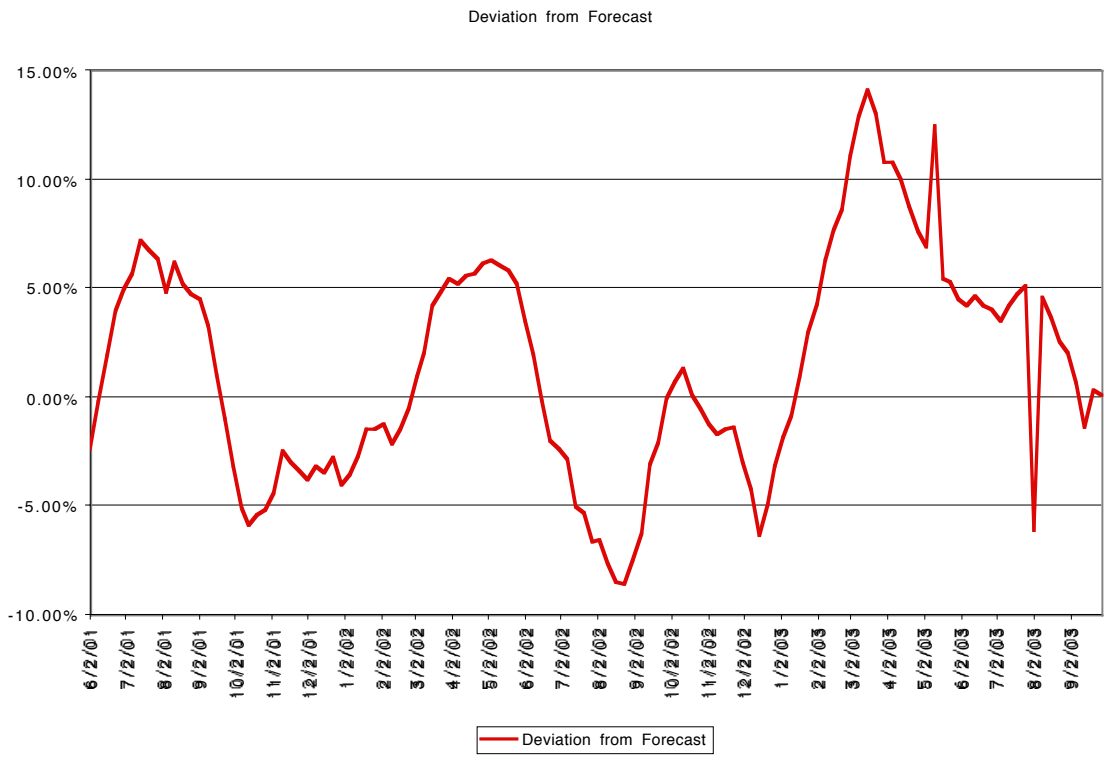


Chart 5: Deviations from Forecast

V. Conclusion

While use of www.artsmia.org continues to grow at a phenomenal rate of more than 50% per year — and traffic exceeded this historic trend for much of the first quarter of calendar year 2003 — specific efforts aimed at boosting traffic to the Institute's Web site may have had negligible impact upon this growth. It is impossible to tell with certainty, however, what trends are the result of the site's natural progress, and what traffic may have been had no effort been expended upon increasing use and awareness.

This is not to say that these efforts have had *no* impact. Other aspects of "What Clicks?" may shed light upon less tangible ways in which the Institute's awareness campaign has affected its online presence. For example, the internal publication of Interactive Learning Station (ILS) "rack cards" advertising the availability of some ILSs online produced a marked and measurable increase in traffic to their primary access point, www.artsmia.org/interactive-media/. While the actual audience for this section remains a fraction of the total for the Institute's Web site, the increase in traffic clearly demonstrates that efforts to increase awareness of targeted portions of the site can have a positive impact.