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NSDL Webmetrics: An Introduction



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What Are Webmetrics?

- Measurements of users' interactions with a web site
- Support understanding, management and improvement of web sites
- There are no standard webmetrics
- Different webmetrics tools measure site traffic in different ways

Some Basic Webmetrics Concepts









- Visitor
 - A person visiting your site from an Internet computer
- Page view
 - Record of that person's viewing of a web page (html file)
- Hit
 - Web page plus all files in that page (html + images, etc.)
- Visit
 - Viewing of one or more linked web pages
 - Ends after period of inactivity (e.g. 30 mins)
- Unique visitor
 - Aggregation of visits by same visitor in a specified timeframe
 - E.g. 5 visits in one day = 1 unique visit

5 Webmetrics Caveats

- Visits \neq page views \neq hits
- Visitor \neq person
- Not all visitors count
- Traffic varies over time
- Different webmetrics tools measure use on the same site in different ways








Caveat 1: Visits \neq Page Views \neq Hits

- The same visitor will produce different numbers, depending on the chosen stat
- Visitor X, using site Y over two days:

	Day 1	Day 2	#
Visits			5
Unique visits			2
Page Views			12
Hits			36

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May 2006	AWStats	Omniture
Hits	512,841	n/a
Page views	197,916	57,233
Visits	25,773	13,743

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Caveat 2: A Visitor \neq A Person

- Multiple students on the same computer (e.g. computer lab, collaborative assignment) can count as one visitor
- A teacher visiting nsdl.org from her office and later from her home computer will be counted as two separate visitors
- A visitor could be a non-human bot/crawler indexing your site

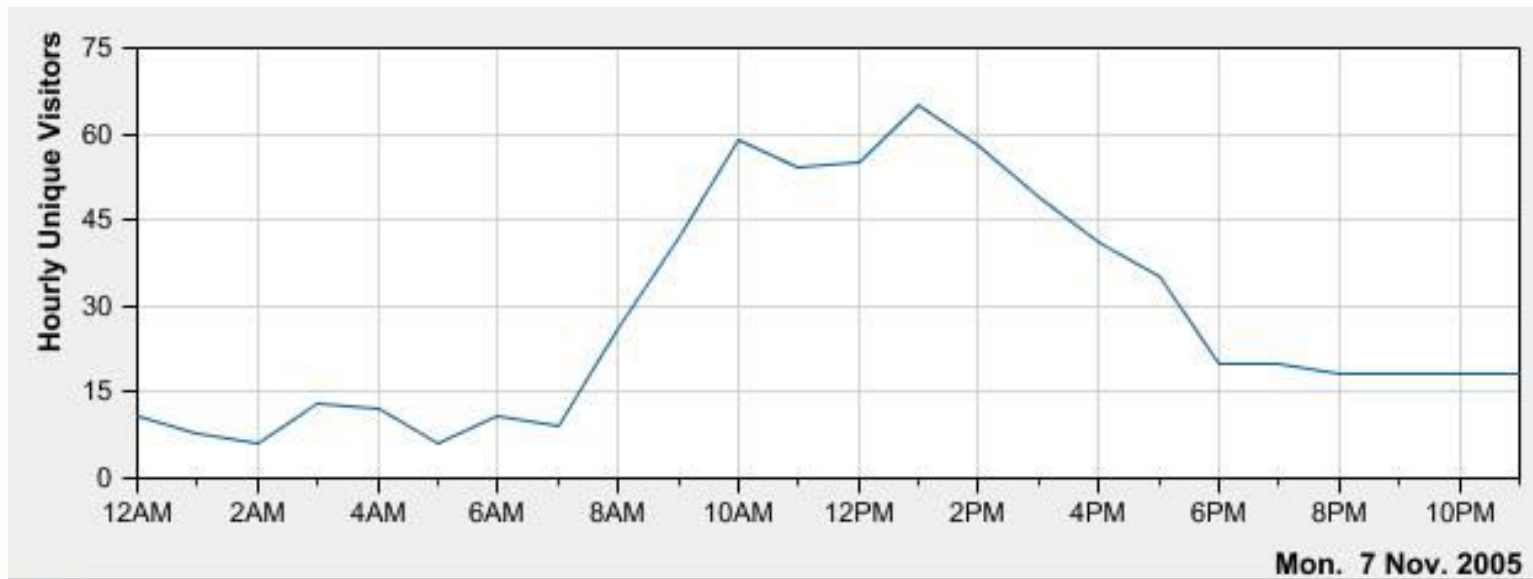
Caveat 3: Not All Visitors Count

- Visitors you want to count
 - Human beings who do things on your site
- Visitors you want to exclude
 - Human beings who build your site (developers, testers, etc.)
 - Non-human beings - bots, crawlers, etc. who are indexing your site
- Different methods for excluding visitors
 - IP address blocking, cookies, etc.

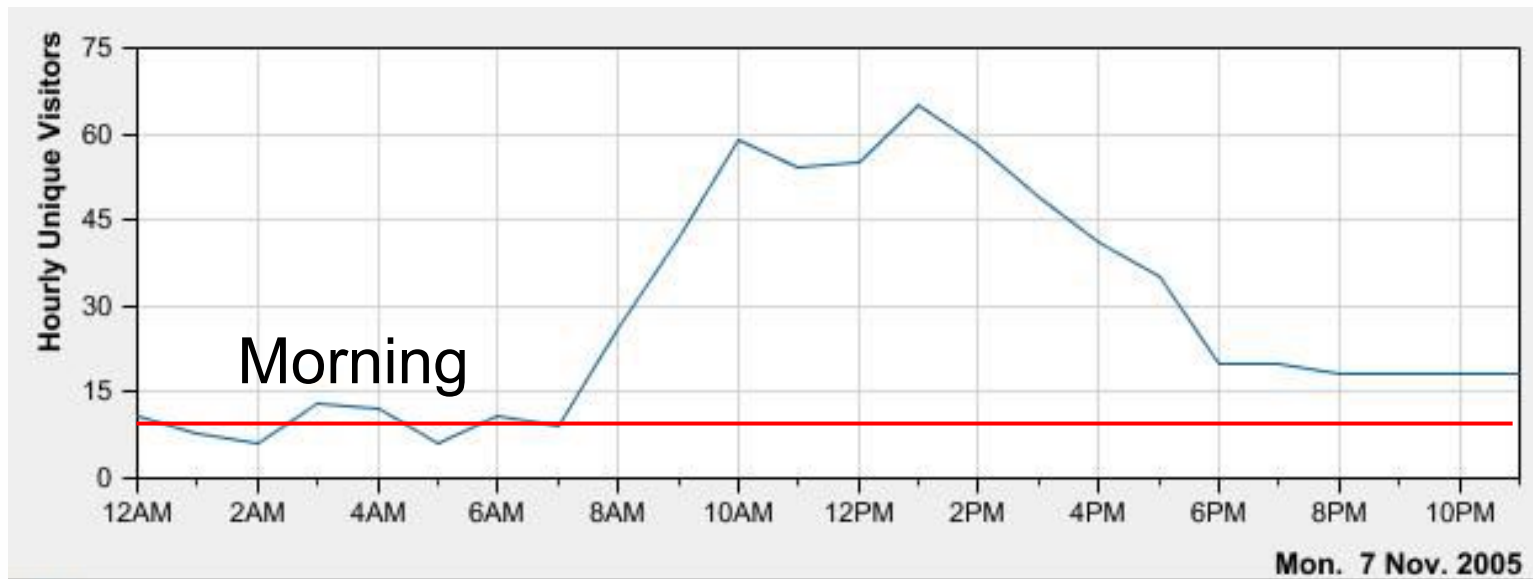
Caveat 4: Traffic Varies Over Time

- Regular (daily, weekly, monthly, annual) and irregular fluctuations
- When you measure affects your results
- Long-term trends require reliable longitudinal baseline stats to smooth out fluctuations
- Ideally, a minimum of 1 year's stats required

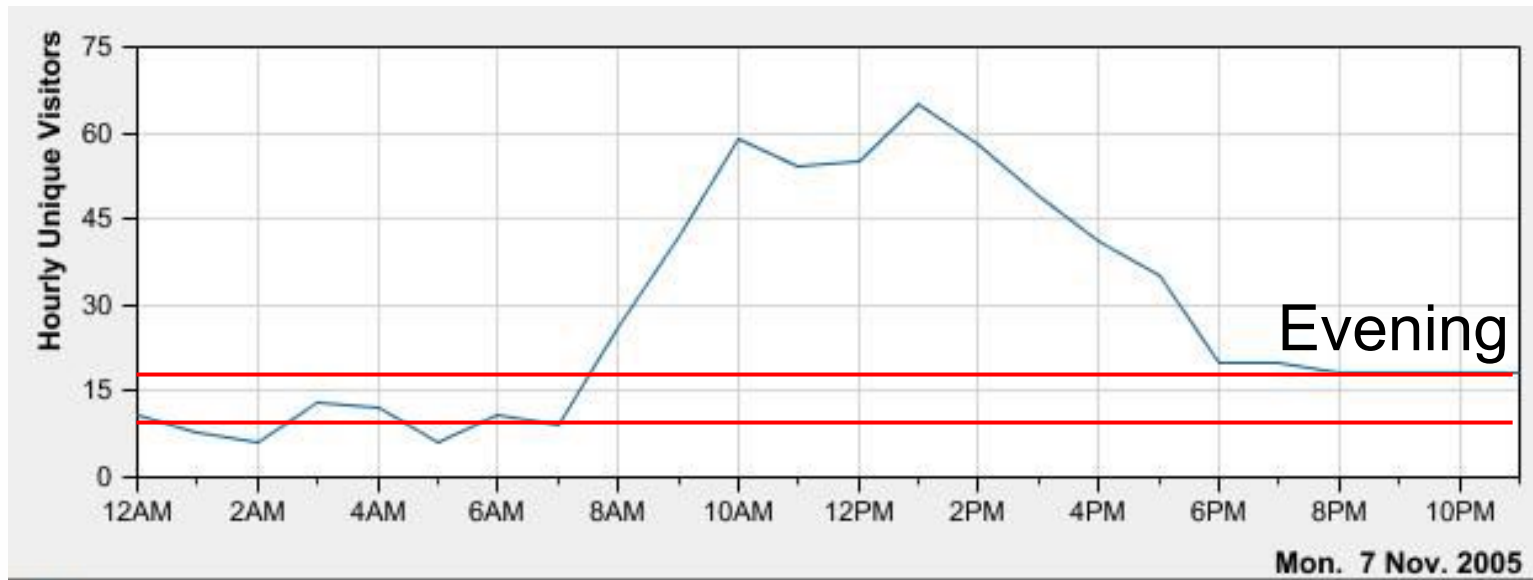
Example 1: Daily Fluctuations



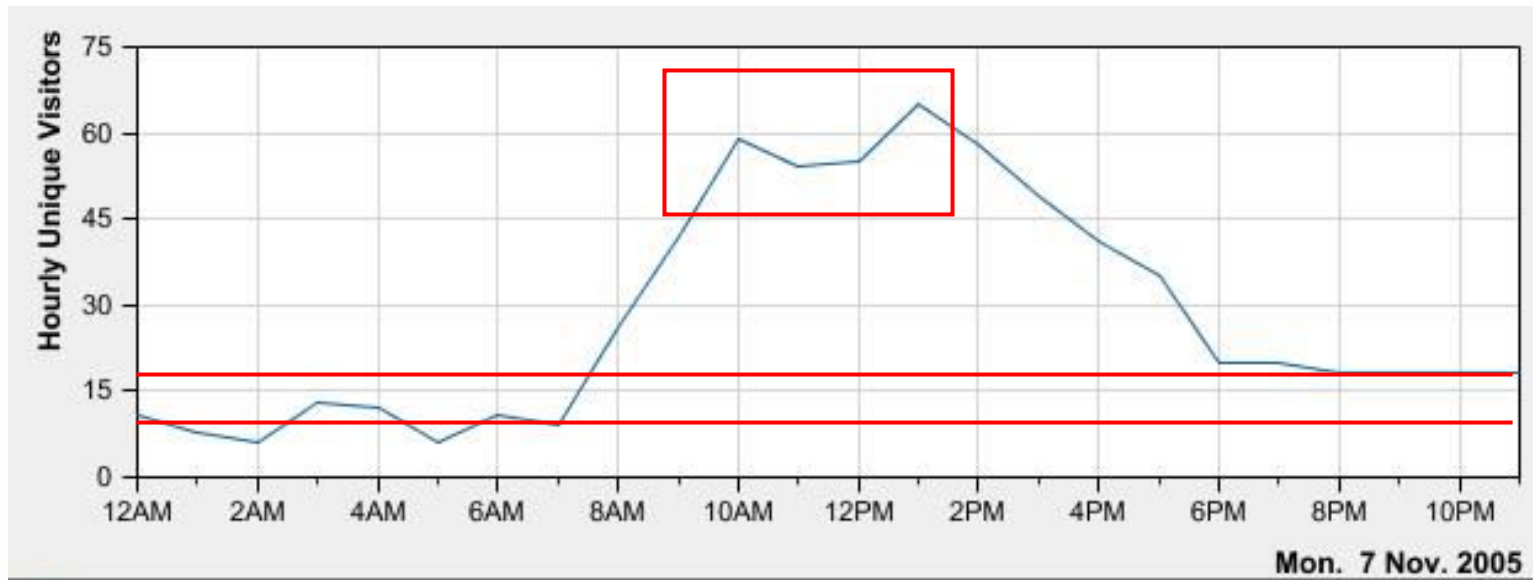
Example 1: Daily Fluctuations



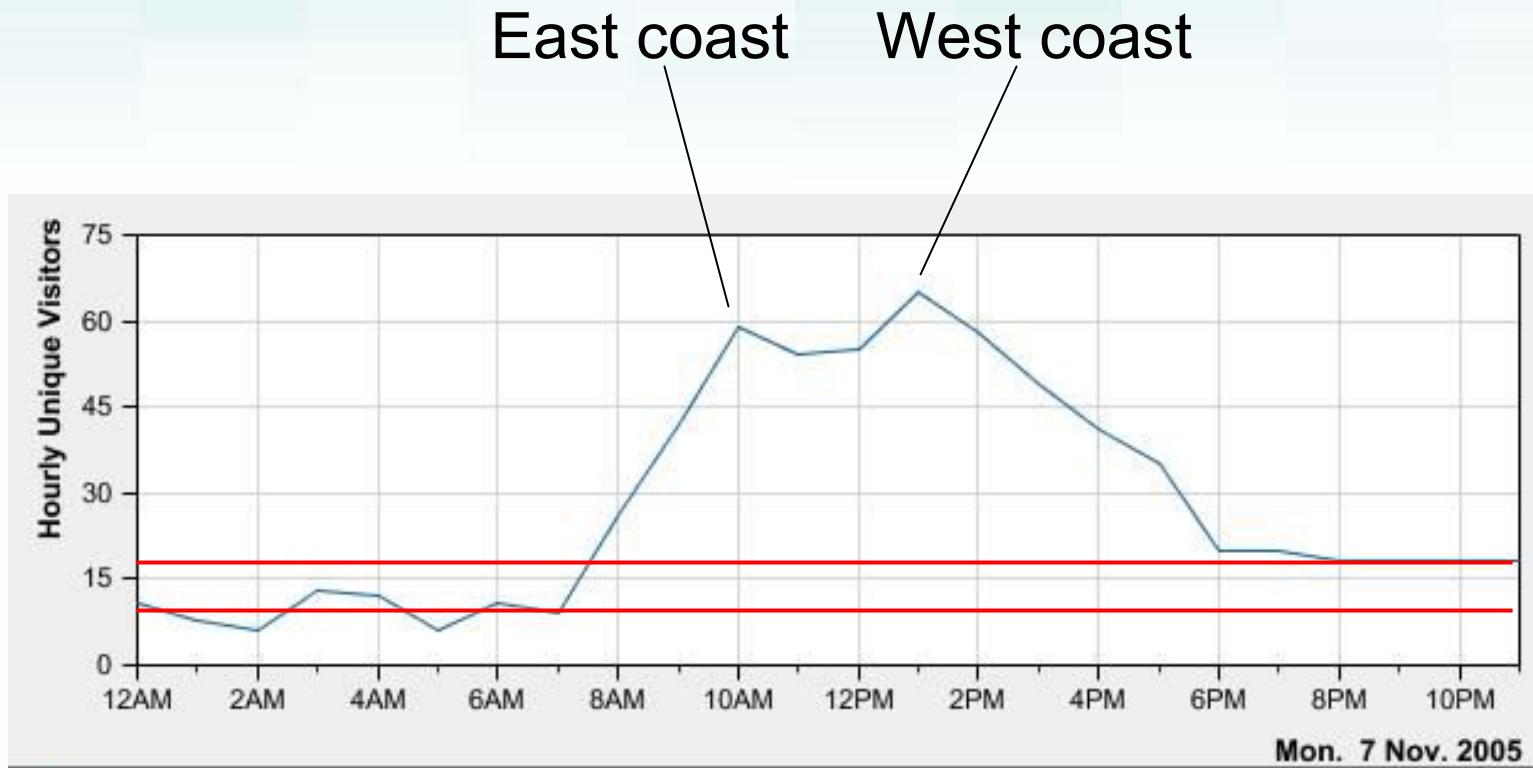
Example 1: Daily Fluctuations



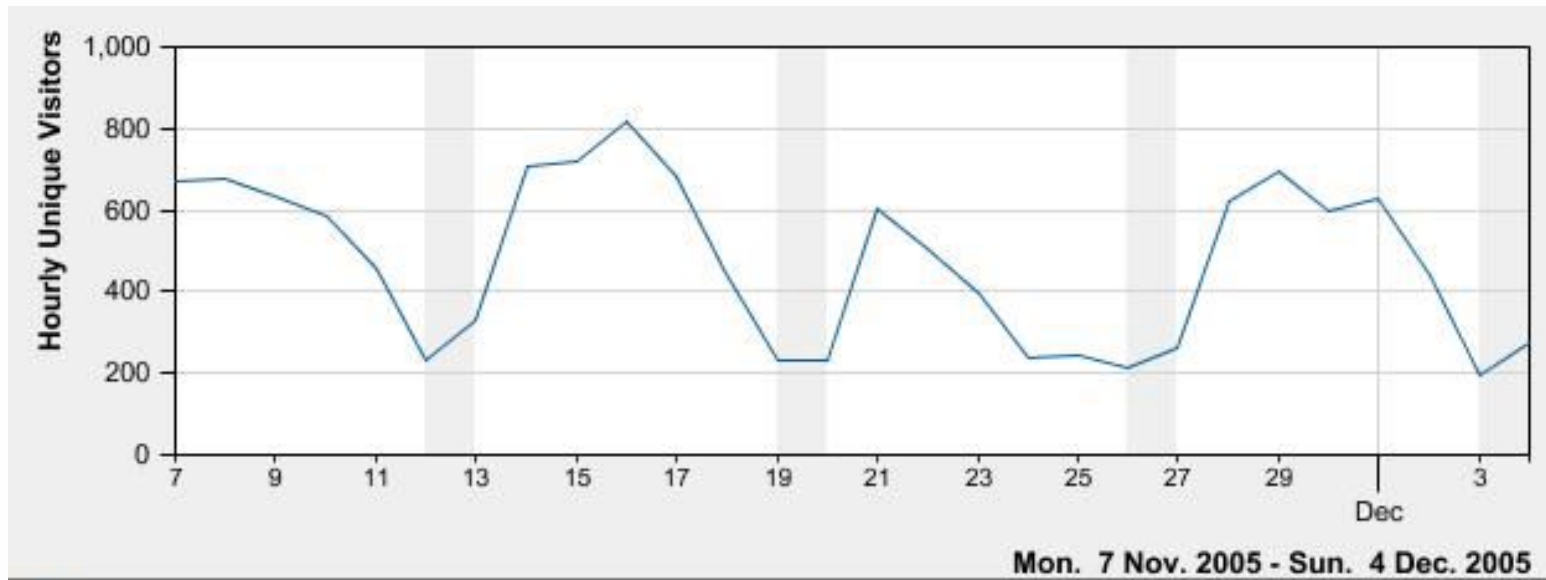
Example 1: Daily Fluctuations



Example 1: Daily Fluctuations



Example 2: Monthly Fluctuations

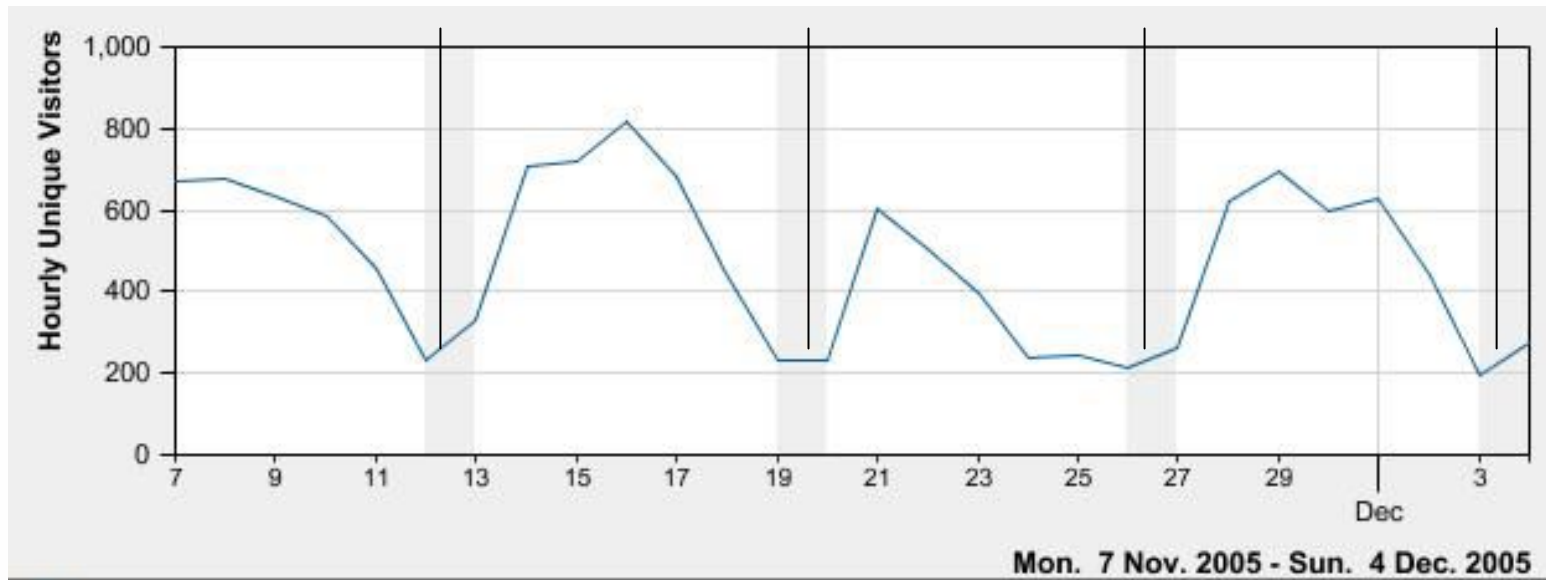


Example 2: Monthly Fluctuations

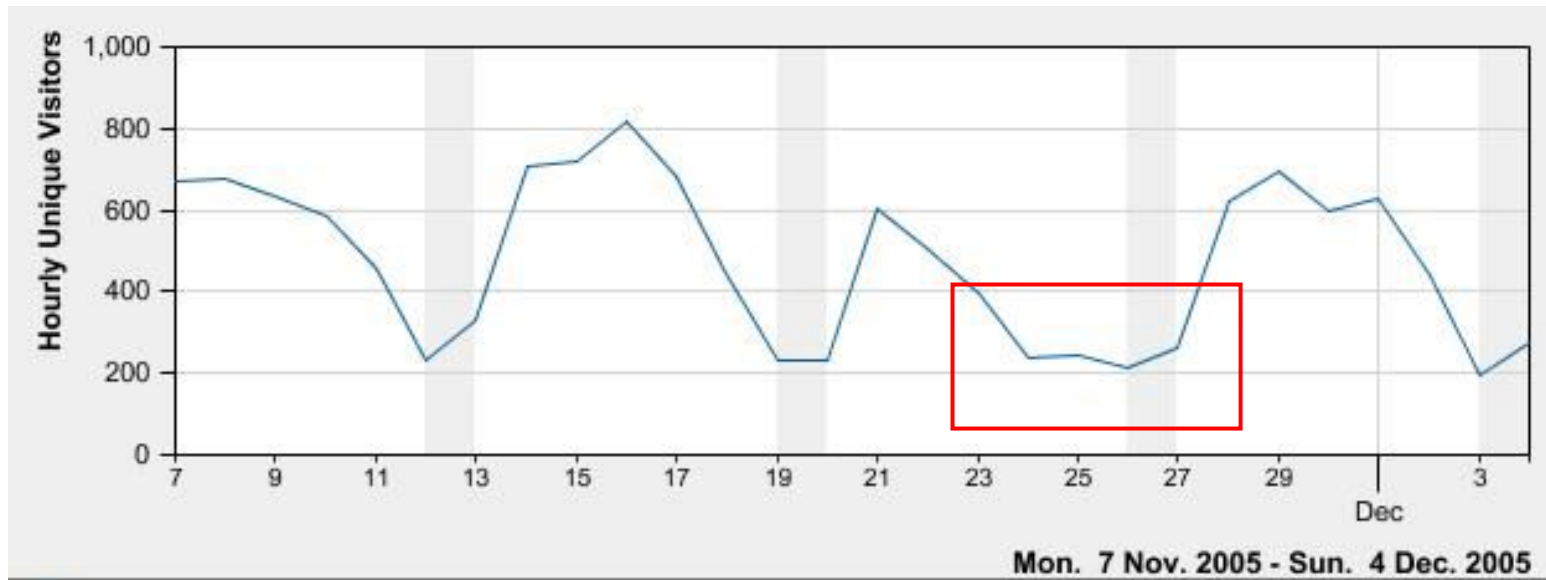


Example 2: Monthly Fluctuations

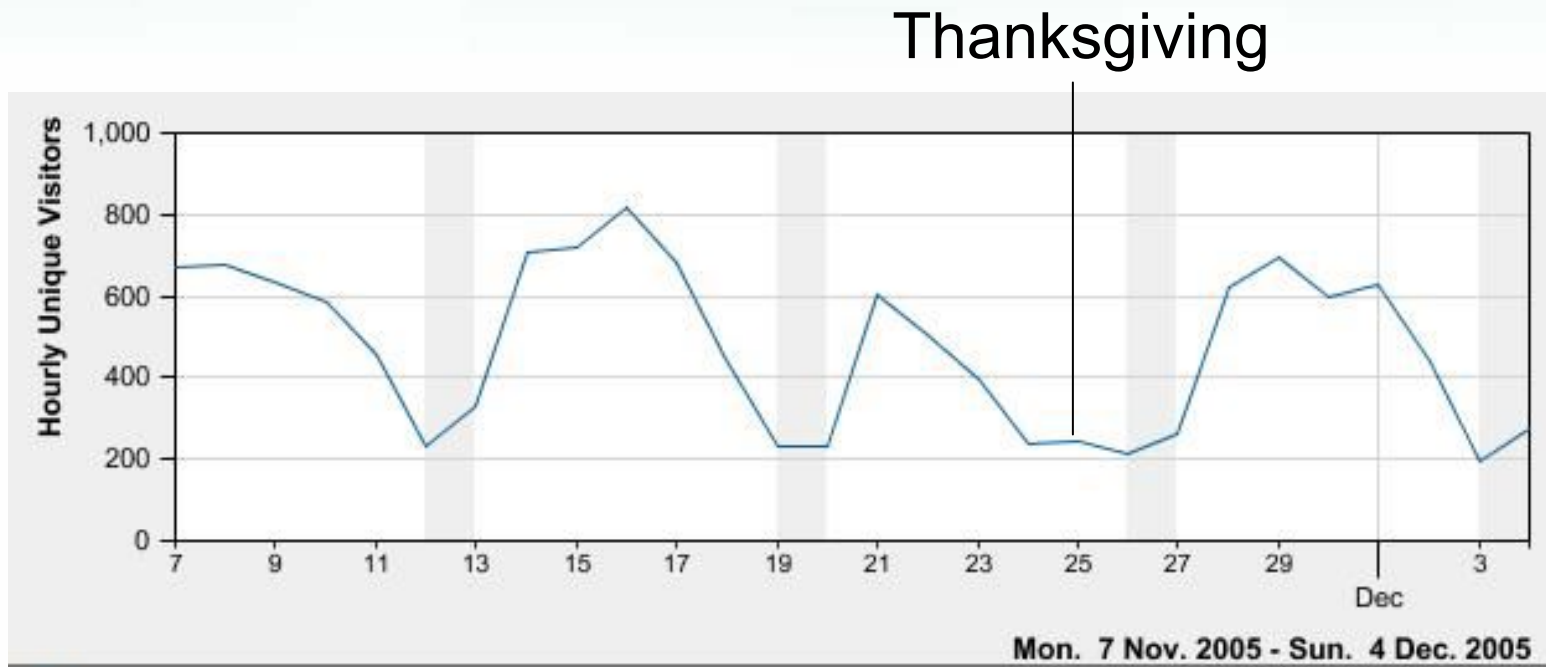
Weekend Weekend Weekend Weekend



Example 2: Monthly Fluctuations



Example 2: Monthly Fluctuations



Caveat 5: Different Tools Count Visitors in Different Ways

- Differences between tools are obscure
- Incorrect analogy: utility bill
 - 2 people + same use = same bill
- More correct analogy: cell phone bill
 - 2 people + same use + different plans = different bills
- Difficult to standardize across tools
- Omniture:
 - nsdl.org, SERC and DLESE, Pathways projects
 - ~\$20,000 p.a.

Omniture

- Measures traffic remotely with javascript and cookies
- Data and analyses accessible via browser
- Each site sees their own metrics, all metrics viewable in central CI account
- Projects free to implement their own metrics
- Stats often lower than projects' own server-based webmetrics
 - Bots/crawlers excluded

Company: NSDL
 URL: nsdl.org
 Site: **CI**
 ComPADRE
 CSERD
 DLESE
 ENC
 Math Gateway
 NEEDS
 NSDL All Site Traffic
 NSDL All Traffic (Rollup)
 NSDL Development
 SDSC
 SERC
 Teachers Domain

OMNITURE
SiteCatalyst™
 Version 12

Calendar

Apr

Su M Tu We Th Fr Sa

MONTHS

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

DAYS

SiteCatalyst Home

Report Builder

Dashboards

Bookmarks & Alerts

Targets

Commerce

Traffic

Paths

Traffic

Report Navigator

Calculated Metrics

Manage Calculated M...

Site Traffic

Page Views

Hourly Unique Visitors

Daily Unique Visitors

Weekly Unique Visito...

Monthly Unique Visi...

Quarterly Unique Vis...

Yearly Unique Visitors

Visits

File Downloads

Finding Methods

Referring Domains

Referrers

All Search Engines

Paid Search Engines

Natural Search Engin...

All Search Keywords

Paid Search Keywor...

Natural Search Keyw...

Return Frequency

Daily Return Visits

Return Visits

Visit Number

Visitor Profile

Domains

Top Level Domains

Languages

Time Zones

Visits Report

Date: April 2006 Selected Page: **Entire Site**

DOWNLOAD REPORT

ADD ALERT

NEW WINDOW

DISPLAY OPTIONS



Summary

	Forecast	April 2006	March 2006	April 2005
Total Visits	11,302	9,795	14,122	8,328

Details

Date	Selected Month	4 weeks prior	52 weeks prior
1. Apr 1, 2006	239	225	14
2. Apr 2, 2006	204	272	18
3. Apr 3, 2006	485	553	21
4. Apr 4, 2006	493	558	28
5. Apr 5, 2006	458	511	26
6. Apr 6, 2006	465	542	294
7. Apr 7, 2006	489	509	379
8. Apr 8, 2006	266	236	171
9. Apr 9, 2006	218	252	202
10. Apr 10, 2006	451	576	449
11. Apr 11, 2006	497	562	525
12. Apr 12, 2006	426	443	567
13. Apr 13, 2006	387	484	445
14. Apr 14, 2006	295	442	326
15. Apr 15, 2006	199	245	171
16. Apr 16, 2006	205	241	176

Next ...

- Core Integration is
 - implementing Omniture across Pathways
 - trying to get consistent Pathways data
- Tasks ahead:
 - identify standard metrics for all projects
 - implement cross-project tracking
 - compare use across different projects
- Develop a 'task-centric' model of webmetrics
 - redefine unit of analysis from 'visit' to 'task'
 - identify typical task profiles from webmetrics

Questions?