farmdoc
UNIVERSITY OF ILLINOIS

The Use and Abuse of Web Traffic Statistics for Extension Program Evaluation

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Agricultural and Consumer Economics

Sample of Raw Weblog File for the farmdoc Site, January 1, 2005

- #Software: Microsoft Internet Information Services 6.0
- #Version: 1.0
- #Date: 2005-01-01 00:01:21
- #Fields: date time s-ip cs-method cs-uri-stem cs-uri-query s-port cs-username c-ip cs(User-Agent) cs(Referer) sc-status sc-substatus sc-win32-status sc-bytes
- 2005-01-01 00:01:21 128.174.65.110 GET /images/finance_on.gif - 80 - 216.229.21.37 Mozilla/4.0+(compatible;+MSIE+6.0;+Windows+98;+Mozilla/4.0+(compatible;+MSIE+5.5;+Windows;+HEARTLAND+INET);+T312461) http://www.farmdoc.uiuc.edu/weatherprices/index.asp 304 0 0 211
- 2005-01-01 00:01:21 128.174.65.110 GET /images/marketing_on.gif - 80 - 216.229.21.37 Mozilla/4.0+(compatible;+MSIE+6.0;+Windows+98;+Mozilla/4.0+(compatible;+MSIE+5.5;+Windows;+HEARTLAND+INET);+T312461) http://www.farmdoc.uiuc.edu/weatherprices/index.asp 304 0 0 210
- ...
- 2005-01-01 00:11:48 128.174.65.110 GET /robots.txt - 80 - 207.68.146.55 msnbot/0.3+(+http://search.msn.com/msnbot.htm) - 404 0 2 1814
- 2005-01-01 00:11:48 128.174.65.110 GET /fasttools/register.html - 80 - 207.68.146.55 msnbot/0.3+(+http://search.msn.com/msnbot.htm) - 200 0 0 2524
- ...
- 2005-01-01 00:12:58 128.174.65.110 GET /ncrisk/grant_application/FinalReport.doc - 80 - 68.142.249.113 Mozilla/5.0+(compatible;+Yahoo!+Slurp;+http://help.yahoo.com/help/us/ysearch/slurp) - 200 0 0 21269
- 2005-01-01 00:14:02 128.174.65.110 GET /finance/FinancialCharacteristics/ratios.htm - 80 - 202.45.121.254 Mozilla/4.0+(compatible;+MSIE+6.0;+Windows+NT+5.1;+SV1;+.NET+CLR+1.1.4322) http://www.google.com.au/search?q=%22servicing+ratio%22&hl=en&lr=&start=60&sa=N 200 0 0 11908
- ...

Single Log Entry

- 2005-01-01 09:56:33 128.174.65.110 GET /marketing/grainoutlook/0403bean/0403bean_text.html - 80 - 65.214.36.43 Mozilla/2.0+(compatible;+Ask+Jeeves/Teoma) - 200 0 0 36896
  - This file request occurred: *January 1, 2005 at 9:56AM*
  - The page request was a from IP (Internet Protocol) address *65.214.36.43* for the file */marketing/grainoutlook/0403bean/0403bean_text*.
  - The browser technology was *Mozilla/2.0* with a download of *36896kB*

Output from Commercial Web Traffic Software for the farmdoc site, January 2005

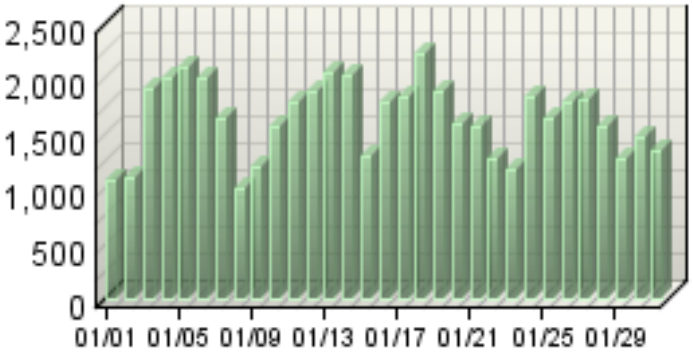
Table 1.a: Technical Summary	
Total Hits	2,252,356
Successful Hits	2,184,692
Successful Hits (as Percent)	97.00%
Failed Hits	67,664
Failed Hits (as Percent)	3.00%
Cached Hits	402,822
Cached Hits (as Percent)	17.88%

Table 1.b: Page View Summary	
Page Views	143,825
Average per Day	4,639
Average Page Views per Visit	2.83

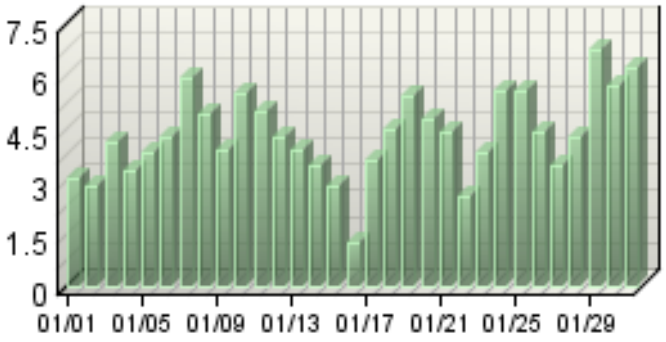
Table 1.c: Visit Summary	
Visits	50,776
Average per Day	1,637
Average Visit Duration	00:16:17
Median Visit Duration	00:02:59
International Visits	0.00%
Visits of Unknown Origin	100.00%
Visits from Your Country: United States (US)	0.00%

Table 1.d: Visitor Summary	
Visitors	24,619
Visitors Who Visited Once	19,411
Visitors Who Visited More Than Once	5,208
Average Visits per Visitor	2.06

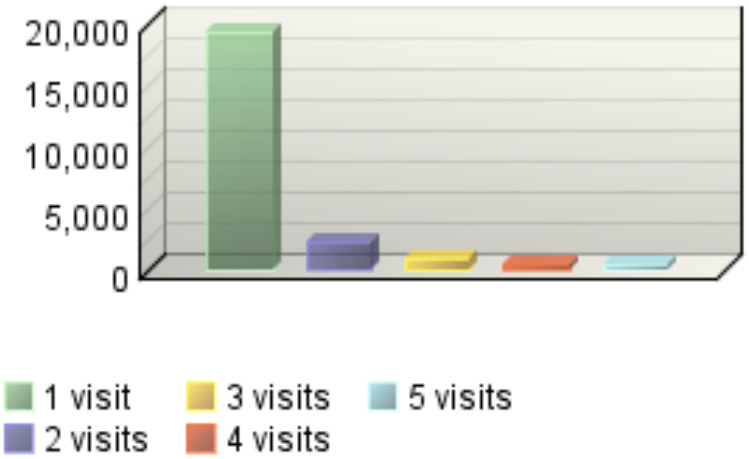
Active Visits

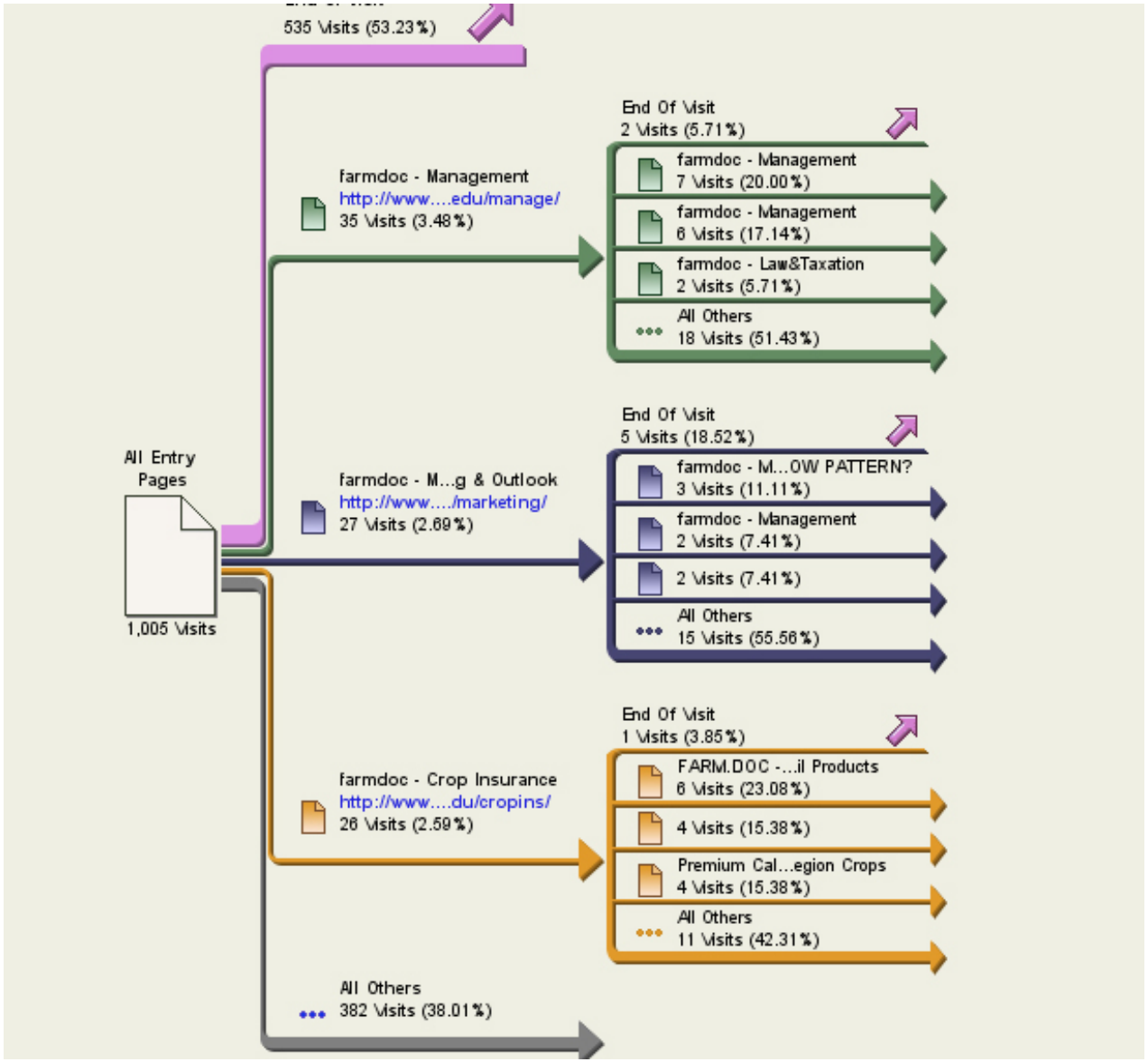


Average Visit Duration



Visitors



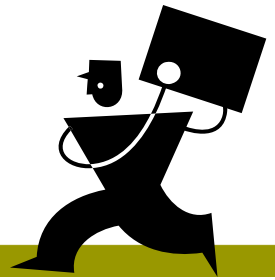

535 Visits (53.23%)
End Of Visit
2 Visits (5.71%)
farmdoc - Management
http://www....edu/manage/
35 Visits (3.48%)
farmdoc - Management
7 Visits (20.00%)
farmdoc - Management
6 Visits (17.14%)
farmdoc - Law&Taxation
2 Visits (5.71%)
All Others
18 Visits (51.43%)
All Entry Pages
1,005 Visits
End Of Visit
5 Visits (18.52%)
farmdoc - M...g & Outlook
http://www..../marketing/
27 Visits (2.69%)
farmdoc - M...OW PATTERN?
3 Visits (11.11%)
farmdoc - Management
2 Visits (7.41%)
2 Visits (7.41%)
All Others
15 Visits (55.56%)
End Of Visit
1 Visits (3.85%)
farmdoc - Crop Insurance
http://www....du/cropins/
26 Visits (2.59%)
FARM.DOC -...il Products
6 Visits (23.08%)
4 Visits (15.38%)
Premium Cal...egion Crops
4 Visits (15.38%)
All Others
11 Visits (42.31%)
All Others
382 Visits (38.01%)

Abuse #1: User Identity cannot be Determined

- User IP address is available but this is not equivalent to user identity
- Many large Internet service providers (ISPs) use the same public 'proxy' server IP address for large pools of users
- Many servers now use dynamically assigned public IP addresses that are reassigned on a regular schedule
- Information on the user IP address and referring site cannot be extrapolated to uniquely identify *users* nor their exact *geographic location* without explicit use of password, stored user data or other identity collection protocol

Abuse #2 The Number of Unique Visitors and Visits is Unknown

- The number of distinct hosts making requests is often used to define unique visitors; however, such visitor estimates unreliable
- Just as in the case of determining user identity, the estimate of unique visitors is thwarted by the practice of multiple users connecting from a proxy host and dynamic public IP numbers
- Commercial software incorporate “black box” models to estimate visitors and visits

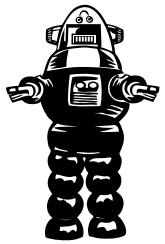


Abuse #3: User Paths within the Site cannot be Reconstructed

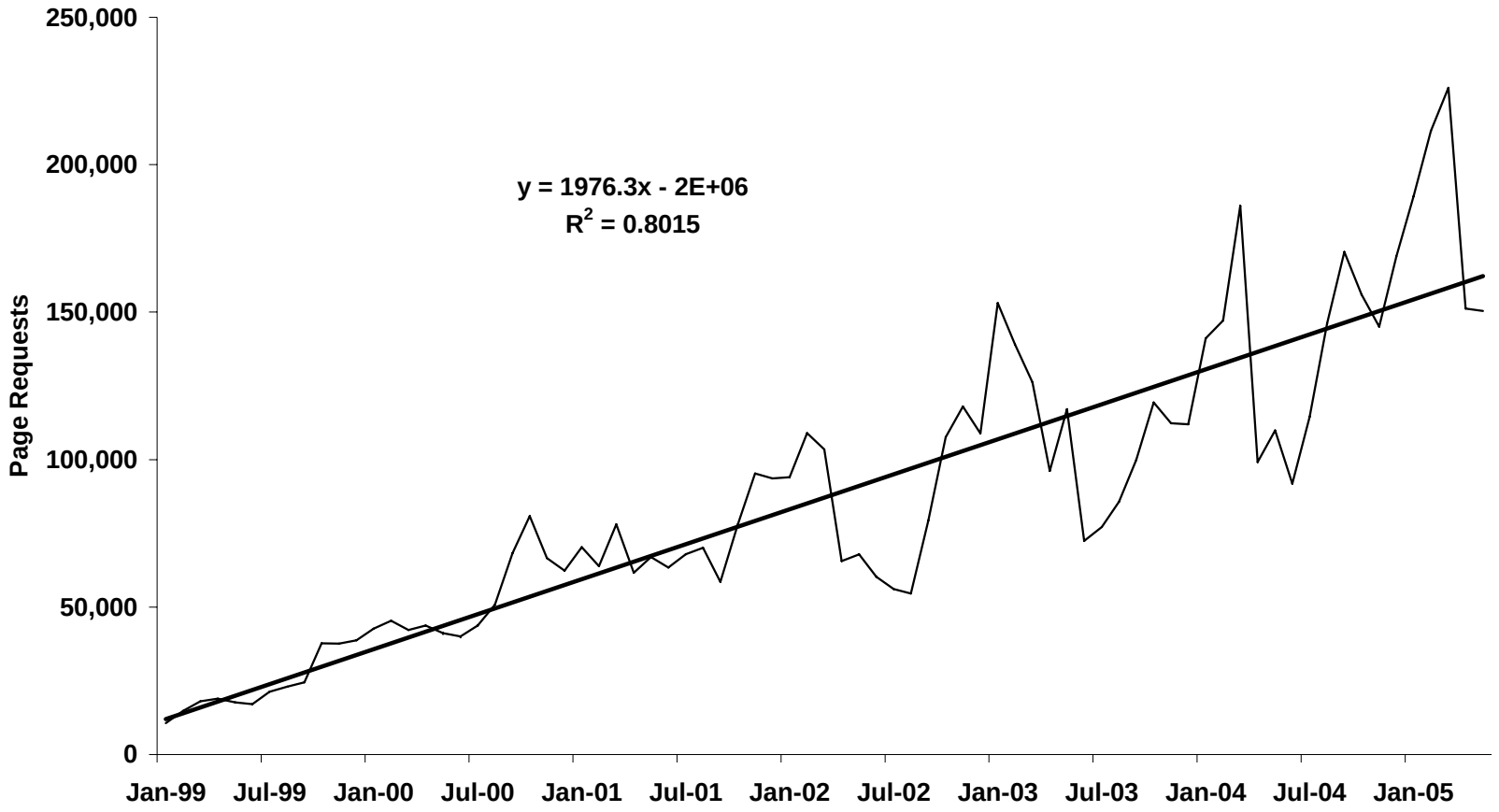
- The current practice of file caching, especially at the server level, means that accurate and complete weblog information on a unique visitor path is not available
- Exit pages cannot be determined since links to external websites are not recorded in the weblog
- Commercial software must apply a user path model to estimate unique visit paths and select the last requested page in that sequence as the exit page

Best Practice: Counting Page Requests

- The number of web pages viewed by visitors to a site
  - Roughly the number of “clicks” a user makes at a site
  - Standard measure for determining advertising rates on the web
- Measurement issues
  - Browser and server caching may cause actual use to be underestimated by page requests
  - Must filter out page requests from search engine “robots” and “crawlers” or effective use will be overestimated



Usage of the farmdoc Website: Entire Site



Usage of the farmdoc Website: Requests Growth Rate for the Entire Site (compared to same month in previous year)