E-Metrics
Counting a Virtual Moving Target

Presented by Virginia Kinman, Electronic Resources Librarian, Longwood University, at the 2004 Virginia Library Association Annual Conference

The Virtual Moving Target

- Traditional use vs. online/remote use
- Rising costs
- Less local control
- Changing subscription options
- Annual surveys
Agenda

- What are e-metrics?
- Are there any standards?
- How do we measure?
- What do we measure?
- Who does the measuring?
- How is the data presented?
- Longwood’s e-metrics efforts
- What do we do with the results?

What are e-metrics?

_E-metrics may be loosely defined as any effort to measure electronic and networked resources._

4 core areas applicable across library types:

- Vendor data
- Network service data
- Network resources data
- Expenditures data

Are there any standards?

- ICOLC (1998, revised 2001)
- EQUINOX (2000)
- ARL E-Metrics Project (2000 to date)
- COUNTER (2002 to date)
  - Release 1 (December 2002)
- ISO and NISO

How do we measure?

A 2001 study at North Carolina State University comparing internally collected statistics with vendor statistics for 28 products found some differences but similar patterns.

- Vendor supplied statistics
- Web server logs
- Scripts in OPAC links
- Proxy server logs
What do we measure?

*E-metrics will only give us a general indicator of use, not actual usage.*

4 basic COUNTER usage elements:
- Sessions
- Searches
- Turnaways
- Full Text

What do we measure? **Issues**

- Metasearching
- Different time-out settings
- Double-clicks
- Duplicate searches by the same user
- Automatic full-text display
- Zero-hit searches
- Multiple full-text formats
- Search strings from other sources
- Vendor or local technical problems
- Public PCs with multiple users
What do we measure? Reports

**COUNTER Level 1 Reports**

- **JR1** Successful article requests by journal
- **JR2** Turnaways by journal
- **DB1** Total searches and sessions by database
- **DB2** Turnaways by database
- **DB3** Total searches and sessions by service

What do we measure? Reports

**COUNTER Level 2 Reports**

- **JR3** Successful item requests and turnaways by journal and page type (e.g., TOC, abstract, full-text PDF, full-text HTML, references)
- **JR4** Total searches by month and service
Who does the measuring?

- Libraries
- Vendors

*The COUNTER Code of Practice requires that Level 1 reports be provided free of charge and requires a third-party audit of vendor usage reports and processes for compliance status.*

How is the data presented?

- CSV or Microsoft Excel (XML required in Release 2)
- Password-controlled website
- Monthly basis, with data updated within 2 weeks of end of reporting period
- Consortium, consortium member, institute and department level options
How is the data presented? JR1

Journal Report 1: Number of Successful Full-Text Article Requests by Month and Journal Full journal name, print ISSN and online ISSN are listed.

<table>
<thead>
<tr>
<th>Journal</th>
<th>Print ISSN</th>
<th>Online ISSN</th>
<th>Jan - 01</th>
<th>Feb - 01</th>
<th>Mar - 01</th>
<th>Calendar YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for all journals</td>
<td></td>
<td></td>
<td>4637</td>
<td>8212</td>
<td>7050</td>
<td>45807</td>
</tr>
<tr>
<td>Journal of AA</td>
<td>1212-3131</td>
<td>3225-3123</td>
<td>456</td>
<td>521</td>
<td>665</td>
<td>4532</td>
</tr>
<tr>
<td>Journal of BB</td>
<td>9621-3381</td>
<td>2312-8751</td>
<td>203</td>
<td>251</td>
<td>275</td>
<td>3465</td>
</tr>
<tr>
<td>Journal of CC</td>
<td>2464-2121</td>
<td>0154-1521</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Journal of DD</td>
<td>5365-5444</td>
<td>0165-5542</td>
<td>203</td>
<td>251</td>
<td>275</td>
<td>2978</td>
</tr>
</tbody>
</table>


How is the data presented? JR2

Journal Report 2: Turnaways by Month and Journal Full journal name, print ISSN and online ISSN are listed. (this report is applicable only where the user access model is based on a maximum number of concurrent users)

<table>
<thead>
<tr>
<th>Journal</th>
<th>Print ISSN</th>
<th>Online ISSN</th>
<th>Page Type</th>
<th>Jan - 01</th>
<th>Feb - 01</th>
<th>Mar - 01</th>
<th>Calendar YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Full-text Turnaways for all Journals</td>
<td></td>
<td></td>
<td></td>
<td>453</td>
<td>233</td>
<td>318</td>
<td>4765</td>
</tr>
<tr>
<td>Journal of AA</td>
<td>1212-3131</td>
<td>3225-3123</td>
<td>Full text Turnaways</td>
<td>25</td>
<td>40</td>
<td>12</td>
<td>342</td>
</tr>
<tr>
<td>Journal of BB</td>
<td>9621-3381</td>
<td>2312-8751</td>
<td>Full text Turnaways</td>
<td>18</td>
<td>20</td>
<td>16</td>
<td>257</td>
</tr>
</tbody>
</table>

How is the data presented? **DB1**

Database Report 1: Total Searches and Sessions by Month and Database

<table>
<thead>
<tr>
<th>Database</th>
<th>Jan - 01</th>
<th>Feb - 01</th>
<th>Mar - 01</th>
<th>Calendar YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database AA</td>
<td>Searches Run</td>
<td>2322</td>
<td>2566</td>
<td>2743</td>
</tr>
<tr>
<td>Database AA</td>
<td>Sessions</td>
<td>1821</td>
<td>1929</td>
<td>2211</td>
</tr>
<tr>
<td>Database BB</td>
<td>Searches Run</td>
<td>3466</td>
<td>3210</td>
<td>4469</td>
</tr>
<tr>
<td>Database BB</td>
<td>Sessions</td>
<td>1987</td>
<td>2300</td>
<td>2544</td>
</tr>
</tbody>
</table>

Source: COUNTER Code of Practice, Release 1, Section 4.1 Usage Reports, Level 1, [http://www.projectcounter.org/code_practice.html](http://www.projectcounter.org/code_practice.html), accessed October 25, 2004

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How is the data presented? **DB2**

Database Report 2: Turnaways by Month and Database, this report is applicable only where the user access model is based on a maximum number of concurrent users.

<table>
<thead>
<tr>
<th></th>
<th>Jan - 01</th>
<th>Feb - 01</th>
<th>Mar - 01</th>
<th>Calendar YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database BB</td>
<td>Database Record Turnaways</td>
<td>23</td>
<td>40</td>
<td>12</td>
</tr>
<tr>
<td>Database BB</td>
<td>Database Record Turnaways</td>
<td>18</td>
<td>20</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: COUNTER Code of Practice, Release 1, Section 4.1 Usage Reports, Level 1, [http://www.projectcounter.org/code_practice.html](http://www.projectcounter.org/code_practice.html), accessed October 25, 2004
How is the data presented? **DB3**

Database Report 3: Total Searches and Sessions by Month and Service

<table>
<thead>
<tr>
<th>Service</th>
<th>Jan - 01</th>
<th>Feb - 01</th>
<th>Mar - 01</th>
<th>Calendar YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for Service Searches Run</td>
<td>16567</td>
<td>18643</td>
<td>20987</td>
<td>80654</td>
</tr>
<tr>
<td>Total for Service Sessions</td>
<td>12007</td>
<td>12677</td>
<td>13003</td>
<td>65487</td>
</tr>
</tbody>
</table>

Source: COUNTER Code of Practice, Release 1, Section 4.1 Usage Reports, Level 1, [http://www.projectcounter.org/code_practice.html](http://www.projectcounter.org/code_practice.html), accessed October 25, 2004

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How is the data presented? **JR3**

Journal Report 3: Number of Successful Item Requests and Turnaways by Month, Journal and Page-Type (Full Journal name, print ISSN and Online ISSN are listed)

<table>
<thead>
<tr>
<th>Journal Name</th>
<th>Print ISSN</th>
<th>Online ISSN</th>
<th>Page Type</th>
<th>Jan-01</th>
<th>Feb-01</th>
<th>Mar-01</th>
<th>Calendar YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of AA</td>
<td>1212-3131</td>
<td>3225-3123</td>
<td>Table of Contents</td>
<td>732</td>
<td>806</td>
<td>676</td>
<td>3343</td>
</tr>
<tr>
<td>Journal of AA</td>
<td>1212-3131</td>
<td>3225-3123</td>
<td>Abstracts</td>
<td>1032</td>
<td>1140</td>
<td>1020</td>
<td>6896</td>
</tr>
<tr>
<td>Journal of AA</td>
<td>1212-3131</td>
<td>3225-3123</td>
<td>References</td>
<td>543</td>
<td>322</td>
<td>597</td>
<td>4002</td>
</tr>
<tr>
<td>Journal of AA</td>
<td>1212-3131</td>
<td>3225-3123</td>
<td>Full-text Requested Requests</td>
<td>444</td>
<td>385</td>
<td>432</td>
<td>3987</td>
</tr>
<tr>
<td>Journal of AA</td>
<td>1212-3131</td>
<td>3225-3123</td>
<td>Full-text PDF Requests</td>
<td>621</td>
<td>670</td>
<td>598</td>
<td>4657</td>
</tr>
<tr>
<td>Journal of AA</td>
<td>1212-3131</td>
<td>3225-3123</td>
<td>Full-text HTML Requests</td>
<td>322</td>
<td>420</td>
<td>543</td>
<td>4433</td>
</tr>
<tr>
<td>Journal of AA</td>
<td>1212-3131</td>
<td>3225-3123</td>
<td>Full-text Total Requests</td>
<td>943</td>
<td>1090</td>
<td>888</td>
<td>5021</td>
</tr>
<tr>
<td>Journal of AA</td>
<td>1212-3131</td>
<td>3225-3123</td>
<td>Full-text PDF Turnaways</td>
<td>23</td>
<td>40</td>
<td>32</td>
<td>186</td>
</tr>
<tr>
<td>Journal of AA</td>
<td>1212-3131</td>
<td>3225-3123</td>
<td>Full-text HTML Turnaways</td>
<td>10</td>
<td>21</td>
<td>18</td>
<td>102</td>
</tr>
</tbody>
</table>

Source: COUNTER Code of Practice, Release 1, Section 4.4 Usage Reports, Level 2, [http://www.projectcounter.org/code_practice.html](http://www.projectcounter.org/code_practice.html), accessed October 25, 2004
How is the data presented? JR4

Journal Report 4: Total Searches Run by Month and Service (This report includes saved searches, modified searches, and searches with zero results)

<table>
<thead>
<tr>
<th></th>
<th>Jan - 01</th>
<th>Feb - 01</th>
<th>Mar - 01</th>
<th>Calendar YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for all</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collections</td>
<td>Searches Run</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>23430</td>
<td>18769</td>
<td>17998</td>
<td>98045</td>
</tr>
<tr>
<td>Collection AA</td>
<td>Searches Run</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2322</td>
<td>2520</td>
<td>2742</td>
<td>8006</td>
</tr>
<tr>
<td>Collection BB</td>
<td>Searches Run</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1588</td>
<td>1322</td>
<td>1643</td>
<td>6098</td>
</tr>
</tbody>
</table>


Longwood’s e-metrics efforts

- 150+ active electronic resource products from 61 different vendors
- One-third are purchased by Longwood
- Half (33) of vendors offer some kind of statistics for about two-thirds (102) of products
- Half (15) of those with statistics use COUNTER, including CSA, Gale, Project Muse, Proquest and WilsonWeb
### Longwood Database Layout

<table>
<thead>
<tr>
<th>Publisher</th>
<th>Product</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logins, passwords and URLs to admin interfaces and statistics</td>
<td>Link to publisher code</td>
<td>Link to product code</td>
</tr>
<tr>
<td>Cheat sheet report of logins and notes</td>
<td>Type of product</td>
<td>Date</td>
</tr>
<tr>
<td></td>
<td>LU or VIVA as source</td>
<td>Searches</td>
</tr>
<tr>
<td></td>
<td>Full text checkbox</td>
<td>Sessions</td>
</tr>
<tr>
<td></td>
<td>Assorted order information</td>
<td>Turnaways</td>
</tr>
<tr>
<td></td>
<td>Fund code for all products</td>
<td>Articles</td>
</tr>
</tbody>
</table>

### Longwood Data Entry Form

![Data Entry Form Image]
Longwood Reports

- Logins and passwords for statistics
- Sort by publisher/vendor
- Group by primary department/fund code to liaisons
- Totals for month, semester, academic year
- Average searches or articles per month
- Average searches or articles per session

Longwood Report Samples

<table>
<thead>
<tr>
<th>Type</th>
<th>Report Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access</td>
<td>Products by Publisher</td>
</tr>
<tr>
<td>Access</td>
<td>Database Searches by Primary Department Designation</td>
</tr>
<tr>
<td>Excel</td>
<td>LU Searches by Semester</td>
</tr>
<tr>
<td>Excel</td>
<td>LU Articles by Semester</td>
</tr>
<tr>
<td>Excel pivot</td>
<td>Longwood Full Text Articles by Semester and Academic Year</td>
</tr>
<tr>
<td>Excel</td>
<td>Searches and Sessions to Date for All Products</td>
</tr>
<tr>
<td>Excel pivot</td>
<td>LUstats super</td>
</tr>
</tbody>
</table>
Longwood Chart Samples

ERIC Searches from Three Different Vendors

Longwood Chart Samples

Searches and Full Text from General Databases

Searches

Full Text
Longwood Chart Samples
Searches and Full Text from E-Journal Sources

Searches

Full Text

Longwood Chart Samples
Searches and Full Text from Business Databases

Searches

Full Text
What do we do with the results?

- Increase/decrease user licenses
- Liaison info about database usage/cost
- Trends over time
  - Impact of major change
  - Impact of web placement
  - Impact of BI
- Trend analysis

What do we do with the results?

Two things are necessary to make e-metrics "truly useful":

- Broadly adopted standards
- Continual practice

The Challenge

*The increasing acceptance of COUNTER gives hope for a *broadly adopted standard.*

*Our challenge is the *continual practice* of collecting and analyzing the data that the COUNTER reports provide.*

Questions and Discussion