The Impact of Electronic Journals on Document Delivery Services

Yaşar Tonta & Yurdagül Ünal
Department of Information Management
Hacettepe University
{tonta, yurdagul}@hacettepe.edu.tr
yunus.hacettepe.edu.tr/~tonta/tonta.html
“The World is Flat”

- The impact of networks
- The death of distance
- Global competition
  - 1492-1800: Countries globalizing
  - 1800-2000: Companies globalizing
  - 2000 ---: Individuals globalizing
World Flatteners

- MS Windows
- Netscape
- Workflow
- Open source software
- . . .
- The Steroids: Digital, mobile, personal, and virtual
Libraries as Virtual Destinations

- Number of users physically visiting libraries decreasing
- Yet the use of collections increasing
- Instant gratification
  - Napster, Kazaa, Docster
- Decline in the number of document delivery requests (16% - 80%)
- Vertical silos vs. virtual destinations
Research Questions

- Is document “delivery” using traditional or electronic means becoming a withering practice in libraries?
- Would document delivery services exist as we know them today in the age of electronic journals, Big Deals, and library consortia?
Method

• Turkish Academic Network and Information Center (ULAKBİM) (www.ulakbim.gov.tr)
  – Provides networking infrastructure and
  – Networked information services for over 80 Turkish universities
  – Has more than 10,000 journals with 23 years of backruns
  – Spends 40% of its budget on e-journals
• Analysis of some 400,000 document delivery requests (2000-2005)
• The Consortium of Anatolian University Libraries (ANKOS) (www.ankos.gen.tr)
Findings
# of Items Supplied by ULAKBİM

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number of requests</th>
<th>Total number of requests fulfilled</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/01</td>
<td>57,980</td>
<td>37,740</td>
<td>65</td>
</tr>
<tr>
<td>2001/02</td>
<td>80,140</td>
<td>54,977</td>
<td>69</td>
</tr>
<tr>
<td>2002/03</td>
<td>89,945</td>
<td>63,139</td>
<td>70</td>
</tr>
<tr>
<td>2003/04</td>
<td>87,962</td>
<td>62,813</td>
<td>71</td>
</tr>
<tr>
<td>2004/05</td>
<td>75,168</td>
<td>58,830</td>
<td>78</td>
</tr>
<tr>
<td>Total</td>
<td>391,195</td>
<td>277,499</td>
<td>71</td>
</tr>
</tbody>
</table>

16% decrease
### # of Items Supplied from E-journals

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of items supplied from electronic journals</th>
<th>Total number of items supplied</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/01</td>
<td>1,061</td>
<td>37,740</td>
<td>3</td>
</tr>
<tr>
<td>2001/02</td>
<td>4,302</td>
<td>54,977</td>
<td>8</td>
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<tr>
<td>2002/03</td>
<td>9,989</td>
<td>63,139</td>
<td>16</td>
</tr>
<tr>
<td>2003/04</td>
<td>15,477</td>
<td>62,813</td>
<td>25</td>
</tr>
<tr>
<td>2004/05</td>
<td>19,642</td>
<td>58,830</td>
<td>33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50,471</strong></td>
<td><strong>277,499</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

*Quadruple increase*
Impact of e-journals available through consortium

Quadruple increase

Number of items supplied

Year

2000/01 2001/02 2002/03 2003/04 2004/05

Print journals  Electronic journals

3% 8% 16% 25% 33%
**Fulfillment Rate for Academic DocDel Requests**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of requests</th>
<th>Number of requests fulfilled</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/01</td>
<td>41,548</td>
<td>27,297</td>
<td>66</td>
</tr>
<tr>
<td>2001/02</td>
<td>55,653</td>
<td>38,353</td>
<td>69</td>
</tr>
<tr>
<td>2002/03</td>
<td>59,684</td>
<td>41,716</td>
<td>70</td>
</tr>
<tr>
<td>2003/04</td>
<td>54,378</td>
<td>38,710</td>
<td>71</td>
</tr>
<tr>
<td>2004/05</td>
<td>47,168</td>
<td>36,951</td>
<td>78</td>
</tr>
<tr>
<td>Total</td>
<td>258,431</td>
<td>183,027</td>
<td>71</td>
</tr>
</tbody>
</table>

- 21% decrease
- 11% decrease
Demand & Fulfillment Rate for Academic Sector

% of requests decreased more sharply
% of fulfilled requests decreased more slowly
Downloads vs. Document Delivery

- Number of items downloaded by ANKOS members
- Number of items requested from ULAKBIM

Year

2002 2003 2004

Number of items (logarithmic scale)

2002 2003 2004

2300000 6020238 8470000

89945 87962 75168
Conclusions

• The impact of ANKOS and Big Deals
• High “cross-access” rates
• Low average unit costs
  – downloaded article: 1.22USD
  – document delivery: 4.00 USD (if available in-house)
• More requests to current articles
• Core journals satisfied majority of document delivery requests
Conclusions (cont’d)

• E-journals (with backruns), Big Deals, Consortia
• Standard-based products
  – Z39.50 for searching
  – ISO ILL Protocol for ILL communication
  – NISO Circulation Interchange Protocol (NCIP) for user-initiated circulation
  – Open URL to link directly to electronic resources
• Document delivery in the “Flat World”: A withering service?
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