A ‘Joined-Up’ Electronic Journal Service: User Attitudes and Behaviour

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Funded by the Joint Information Systems Committee
User Attitudes and User Behaviour

The Technology Acceptance Model (TAM)

Davis (1993)

Service Offered

Perceived utility or usefulness

Perceived ease of use (usability)

Attitude Towards Use

Actual System Use

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User Attitudes and User Behaviour

*The Effect of Usage on Attitude*

- Service Offered
- Perceived utility or usefulness
- Perceived ease of use (usability)
- Attitude Towards Use
- Actual System Use
The Zetoc Service

• Zetoc: web based Table of Contents service
• Database of 25 million records of the British Library
• Search facilities and an email alerting service
• Hosted by MIMAS, Manchester University
• Launched 2000
• Free to UK Universities and Colleges (JISC)
• Non-electronic delivery of full text articles e.g. ILL
Usage of Zetoc

Usage Statistics: May 2002
- 13,000 alert users
- 20,000 journal alerts
- 40,000 searches per month

User Attitudes
- Easy to use way of keeping up-to-date
- Want electronic ‘join up’ - direct access to electronic full text

Electronic Questionnaire
655 responses, >100 institutions

Usage Patterns
- Zetoc offered 22 features
- 75% set journal alerts (av. 13 journals)
- 50% had searched the database
- Very few used delivery services
- 83% used 1 to 5 features (Passive Users)
- 17% used 6 to 18 features (Active Integrators)
Zetoc enhancements

2002  Zetoc as an OpenURL source

Discover ➔ Locate ➔ Request ➔ Deliver

Institution Meta-searching Portals

Default Litlink Resolver

Institution Resolver
Usage of OpenURL Version of Zetoc

2002-2005 Usage Statistics

- **Discover**
  - Institution Meta-searching Portals
  - Sept 2002: 2,317
  - Mar 2005: 46,229

- **Locate**
  - Default Litlink Resolver
  - Nov 2002: 3,328
  - Mar 2005: 8,681

- **Request**
  - Institution Resolver
  - Nov 2002: 152 (4)
  - Mar 2005: 4,625 (42)

- **Deliver**

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Evaluation of the enhanced service

Questionnaire Survey: 196 respondents

Attitudes
• Keep up-to-date with wide range of journals using Zetoc
• Want electronic full text at the desktop

Evaluation of OpenURL facilities
• 118 (61%) had used them
• 79 (67%) ‘better’; 34 (29%) ‘same’; 5 (4%) ‘worse’
• 93% of users at ‘resolver’ universities said ‘better’
• 81% of users at older, established universities said ‘better’
• 53% of users at new universities without ‘resolvers’ said ‘same’ or ‘worse’
User Strategies from Discovery to Delivery: An Interview Study

The Story Behind the Statistics: Unstructured Interviews with 26 Zetoc Users

<table>
<thead>
<tr>
<th>University</th>
<th>No.</th>
<th>No. of Users</th>
<th>Average Zetoc score</th>
</tr>
</thead>
<tbody>
<tr>
<td>With Resolver</td>
<td>3</td>
<td>16</td>
<td>7.6</td>
</tr>
<tr>
<td>Without Resolver</td>
<td>3</td>
<td>10</td>
<td>5.9</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>26</td>
<td>6.9</td>
</tr>
</tbody>
</table>
User Strategies from Discovery to Delivery: Non-Electronic Delivery

**Strategy 1: Passive, Ad Hoc**

<table>
<thead>
<tr>
<th>University</th>
<th>Users</th>
<th>zetoc score</th>
</tr>
</thead>
<tbody>
<tr>
<td>With resolver</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>Without resolver</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Description: Set Alerts: ‘haunted by them’: hope to follow-up sometime by any means that is known. Have not used Zetoc OpenURLs

Users and Context:

- Mostly faculty: all kinds of institutions

**Strategy 2: Passive, Traditional**

<table>
<thead>
<tr>
<th>University</th>
<th>Users</th>
<th>zetoc score</th>
</tr>
</thead>
<tbody>
<tr>
<td>With resolver</td>
<td>1</td>
<td>7.0</td>
</tr>
<tr>
<td>Without resolver</td>
<td>3</td>
<td>6.1</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Description: Organised current practice; set alerts and planned follow-up to locate printed versions. Known practice okay. Have not used Zetoc OpenURLs

Users and Context:

- Faculty and researchers mostly in institutions with limited electronic journals
User Strategies from Discovery to Delivery: Electronic Delivery

<table>
<thead>
<tr>
<th>Strategy 3: Active, Fragmented</th>
<th>Description: Using electronic delivery from other websites as well. Some unhappy experiences when Using ZetocOpenURLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users</td>
<td>Zetoc score</td>
</tr>
<tr>
<td>With resolver</td>
<td>7</td>
</tr>
<tr>
<td>Without resolver</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
</tr>
</tbody>
</table>

| Strategy 4: Active, Integrated | Description: Zetoc OpenURLs as first choice strategy to get electronic full text |
|-------------------------------|---------------------------------------------------------------------------------
| Users                         | Zetoc score                             |
| With resolver                 | 6                                      | 10.0                                             |
| Without resolver              | 0                                      | 0                                                |
| Total                         | 6                                      | 10.0                                             |

Users and Contexts: Research students and researchers in a range of institutions

Users: Research students and librarians in electronic journal rich institutions with resolvers
‘A joined-up service’
Utility and Barriers

Utility
- Users wanted ‘seamless join-up’; full text ‘in a few clicks’
- OpenURL technology provides a means to achieve it
- Some users are achieving an excellent service

Barrier One: The Dominance of Current Practice
- The majority continue with current practice
- Needs ‘breakdowns’ and individual ‘high benefit/low effort (cost)’ ratio to change/develop current practice

Barrier Two: Institutional readiness and join-up
- Successful service requires good electronic journal ‘stocks’ and join-up
Towards a dynamic model of user attitudes and behaviour

New Services

- Perceived Utility
- Perceived Barriers

Attitude

- Attitude to use

Use Event

- Task: as usual
- Task: search and try

Current User Practice

- ‘Ready-to-Hand’ Service Features
  plus incremental feature

Current User Practice

- ‘Ready-to-Hand’ Service Features

Attitude

- Attitude to use

Use Event

- Task: as usual
- Task: search and try

Unsuccessful

- ++
- --

Successful

- ++
- --

Event Breakdown

- 3 search
- 4 try
- 1 routine
- 2 breakdown
Conclusions

• Methodology: to understand the user, start with the user and their context

• Attitudes and behaviour: positive attitudes help and
• Some users study new services systematically but…
• Current practice dominates: most users learn through ‘breakdowns’ and incremental evaluation

• ‘Joined-up’ services need all the integrated services to be effective for the user
• Attitudes become specific with usage and success/lack of success modifies attitudes and usage patterns in current practice