
What everyone wants: an evaluation of the zetoc service



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THE QUESTION: SHOULD DESIGN AND DEVELOPMENT BE USER-LED?

Are services always designed and developed in response to users' needs and wishes? This issue puts me in mind of the design of buildings, as I used to work in the realm of architecture (as an archivist rather than an architect!). Do architects design what people want or do they design what they think people want? Architects, after all, know a great deal more about buildings, technically speaking, than the people who live in them, so are they the best judges of what is functional, fit for purpose and user-friendly? Should the people who have to live and work in a building be given the chance to have their say? Similarly, when designing and developing an information service, who should have the most sway, designers, who invest a good deal of time in considering the intricacies of a service, or users, who do not?

THE BACKGROUND: WHAT IS ZETOC?

The **zetoc** service¹, which was launched in September 2000, is a joint project between MIMAS (Manchester InforMation and Associated Services), the British Library and the JISC (Joint Information Systems Committee). It provides Z39.50 compliant access to the British Library's electronic table of contents (ETOC) database. The database is derived from about 20,000 of the most widely circulated research journals, currently providing a total of over 20 million items, together with a unique collection of around 16,000 conference papers published annually.

zetoc has certainly gone from strength to strength since its launch. In February 2003 there were over 27,000 sessions on **zetoc**, and over 60,000 searches made. It seems likely that this popularity stems at least in part from the principle of user-centered

development. Initially, the requirements analysis for **zetoc** was derived via a market research exercise. At the same time, in order to facilitate usability, it was designed to look very much the same as the COPAC interface, which is a widely used union catalogue consisting of the catalogues of members of CURL (the Consortium of University Research Libraries). Following the launch of the **zetoc** service, user feedback has always been encouraged and many of the suggestions made by users have been incorporated.

THE USERS: GIVING THEM A VOICE

In Spring 2002 MIMAS, together with colleagues from the Department of Human Sciences at Loughborough University², began co-ordination of an evaluation exercise³. This would provide a major opportunity to gauge the general opinion on the usability of the service and establish a list of potential enhancements. The questionnaire that was developed sought to cover all aspects of the service and to put it into a wider context, establishing to what extent **zetoc** matches users' wants and needs.

The questionnaire was relatively detailed, and it was estimated that users' would take about 15 minutes to complete it. It was gratifying that 659 responses were received from a range of users, with the majority of responses provided by librarians, researchers, postgraduates and university teachers. Most responses were from higher education, but a significant proportion were from NHS staff. The English NHS regions have had access to **zetoc** for 18 months, and it has proved a very popular service with usage doubling over the past year (from 2,000 to 4,000 searches per month).

PROVIDING WHAT USERS' WANT: ZETOC'S MOST VALUED BENEFIT

zetoc provides a very popular current awareness service, whereby users receive emails matching their search criteria whenever new data is loaded into the database. Alerts may include journals and also searches for author(s) and keywords. An average day might see around 8,000 email alerts being sent to **zetoc** users.

The alerting service is designed to provide a simple means for users to keep up-to-date with developments in their areas of interest. The evaluation findings support this, with 80% of respondents expressing agreement or neutrality when asked whether the process is straightforward. A neutral response suggests that users do not really think about the process, and therefore do not have any particular problems with it. The need for an

Athens login (Athens Authentication System) is seen as an impediment to use by 15%, which is a cause for some concern and somewhat surprising given that so many UK based educational services now use Athens. The **zetoc** database is updated daily, and items are often added within days of publication, so alerts should be an easy and convenient way of finding out about the latest articles of interest. This supposition is substantiated by respondents' feelings about the main benefit of **zetoc**, which they cite as keeping them up-to-date with developments in their subject areas.

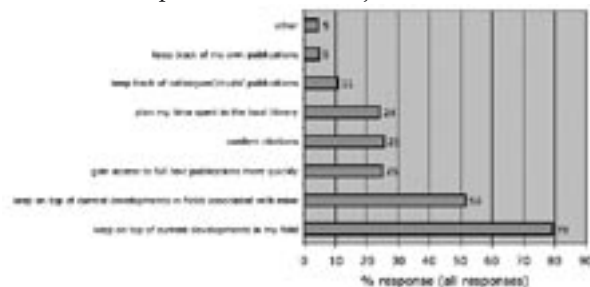


Fig 1: Benefits of **zetoc** that respondents found of value (respondents could choose more than one benefit)

The evaluation confirms that most users know which journals they want to include in their alerts, but for those wishing to search for journals, the general view is that using the search interface within **zetoc** alert is straightforward. For those users who only set up alerts for some of the journals that are of interest, the main reason highlighted in the evaluation is the lack of coverage of **zetoc**. Despite the inclusion of the tables of contents from 20,000 journals, users are clearly not going to find everything that they would like!

It is interesting to note that users do not tend to modify alerts once they have been set up, despite the fact that only a few respondents feel that this is difficult to do. The precise reasons for this are not firmly established by the evaluation, but it seems that users may spend a limited period of time initially investigating a service and then take a more passive view for the longer-term, as investigating the full potential of such resources as **zetoc** would be time-consuming, though it may prove beneficial in the longer term. Part of the reason may be the feeling of information-overload, which is given as a common reason for limiting the numbers of journals included in alerts.

PROVIDING WHAT USERS WOULD LIKE: FROM JOURNAL SEARCH TO FULL TEXT

Users find the search facility easy to use, with 76% searching without any problems, and they do not appear to have any particular criticisms of the interface. Many users do not make use of the

additional facilities available, such as the search history, though many do use the email facility to email the results to themselves. This tendency, amongst other findings, indicates that **zetoc** is almost always used by individuals working alone - users set up their own alerts, and carry out their own searches for their own purposes, rather than sharing information.

The issue of obtaining the full text of articles in **zetoc** is covered in the evaluation, and is an area where the potential for user-led enhancement is evident. 11% of respondents currently use the British Library's document supply service⁴ that is available within **zetoc**. 73% indicated that they use the inter-library loan option and 79% search for articles locally, but the strongest tendency is to use the web to locate electronic copies, with 80% obtaining the full text of articles via means other than those provided in **zetoc**.

Interestingly, when asked about what they would use in the future, a significantly larger proportion - just over 50% - would consider using the document supply service than do at present. However, the most popular option is still to use the web to locate electronic copies. It seems clear from this that an integrated electronic service would be a very popular addition to **zetoc**. About 63% have access to full text services, but it seems likely that many would greatly value a seamless service, from search to provision of full text.

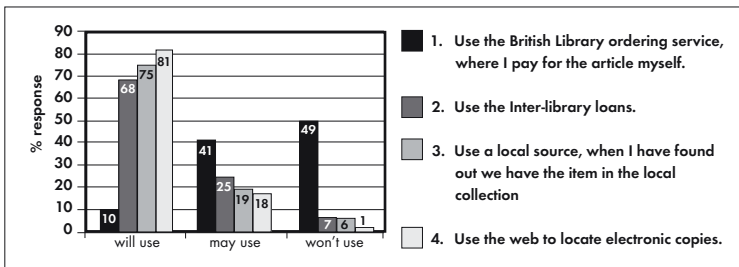


Fig 2: Obtaining full text articles in the future

Following the evaluation, new functionality has been added to **zetoc** so that users from '.ac.uk' domains (ie. from UK academic establishments) can indeed search for the full text of an article. **zetoc** is now an OpenURL source, which means that institutions can provide a link to their own OpenURL Resolver, and a default link has been set up to MDL's LitLink (currently not available to NHS users). These options provide users with the facility to search for the full text. It is early days and there has been little feedback on this service so far. Users may feel frustrated that they cannot always access the full text for articles, as this will obviously depend upon the existence of an electronic copy as well as the users' rights. However,

this is certainly a development that is truly in line with user requirements.

PROVIDING WHAT USERS SHOULD LIKE?: SEAMLESS SEARCHING

zetoc is Z39.50 compatible, which is a protocol allowing searching across a range of databases⁵. This protocol may mean nothing to many users, but they may well access **zetoc** as a Z39.50 target from a search facility in their library - there were over 10,000 Z39.50 searches in February 2003. Z39.50 compliance also provides the opportunity for users to choose to access **zetoc** from local bibliographic software such as EndNote and Reference Manager. The opportunity to copy citations from **zetoc** into a local database should in theory be welcomed by users, but the evaluation shows that not many users have utilised this facility. The evaluation indicates that a significant number of users do use local bibliographic databases, and 74% of them use EndNote, but they are not aware of the Z39.50 facility, despite it having a reasonably high profile on the **zetoc** website. A significant minority feel that it is complicated to set up a search with Z39.50, which is likely to prove a barrier to use. It may be that efforts to give this aspect of **zetoc** a higher profile would be rewarded with a far greater uptake. This is a situation where relatively low use might suggest a lack of interest, but the question is whether use would increase if people were aware of the facility and how it might benefit their research.

UNDERSTANDING PATTERNS OF USE

According to the evaluation, users do not tend to utilise **zetoc** as part of a defined routine. Only 11% combine **zetoc** with other 'targets' in their search routines. This might be, for example, combining **zetoc** searches and Web of Science searches on the same topic. A significant proportion of respondents

do use **zetoc** alert in conjunction with other services, but 48% say that they do not. It would appear that those who do have a more integrated approach to using **zetoc** are librarians, postgraduates and university teachers. It would not be an easy task to encourage undergraduates to adopt this approach as they inevitably tend to be less motivated to spend time learning about the most efficient and effective use of resources. However, it is true to say that **zetoc** is increasingly being cross-searched, as a result of commercial products such as Ex Libris' Metalib⁶ and non-commercial products such as the JISC-funded X-Grain portal⁷. So many users do benefit from a level of integration without being consciously aware of it.

The pattern of use of **zetoc** appears to be influenced by the range of other services that respondents use, as well as by a tendency to set up alerts and then leave the service to provide regular emails, rather than exploring all the aspects of the service. We are intending to inform users about new journals that have been added to **zetoc**, as this may encourage users to search for journals and modify their alerts. About 20% of users appear to be particularly active, exploring what **zetoc** can offer them and utilising it within the context of the whole range of information services that are available to higher and further education. The majority of users are more passive, and though they are happy with the service and find **zetoc** to be easy to navigate and use, they tend to set up alerts and let them stand as they are. It is likely that many of these people use **zetoc** independently, have not attended training courses, have not read the training manuals and do not visit the website regularly. It may only be a significant change in their area of research that would prompt them to consider undertaking further searches and modifying their alerts.

CONCLUSION: THE IDEAL SOLUTION

So, to answer the initial question as to whether design and development should be user-led?

The findings demonstrate that overall users have a very positive view of **zetoc**. 75% feel that it offers them a new service. This opinion is clearly focused on the **zetoc** alerting service, which is the most popular and valued part of the service. The very simple interface that **zetoc** uses would appear to be favoured by users. Many questions related to this issue elicited a neutral response, indicating that the design of the interface is not noticeable, and therefore does not interfere with the service that **zetoc** provides. This generally favourable response to the service may not prove that **zetoc** development is user-led, but it strongly suggests that the service provides what users want, and does it in a way that users are happy with.

The evaluation indicates that **zetoc** is generally used by self-taught users. It is important that they feel confident using **zetoc** without the need for training, so simplicity of design and use must be essential user requirements. In addition, a great deal of context-sensitive help is provided, and a helpdesk email is provided on every page.

It seems clear that an integrated electronic service is something users would value. The links to electronic resources that are now incorporated,

with links to full text articles, should therefore prove popular as long as users are aware of this functionality and believe it to be simple and straightforward to use. Awareness is a particularly salient issue, as the evaluation strongly suggests that most users are not 'active', and therefore may continue to receive alerts but may not be aware of improvements in the services provided by **zetoc**.

We are intending to give users the opportunity to let us know what they think of recent enhancements to **zetoc** by means of a follow up evaluation. We hope that by giving every encouragement to users to provide feedback, and by giving the opportunity to comment specifically on enhancements, that we will fulfill our aim of providing a user-led service that gives users what they need and want. If **zetoc** was a building, the people who live in it would have been part of the process of design and of improvements, and we hope that they would be happy to live and work in it.

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- 1 **zetoc**, the British Library's Electronic Table of Contents, available from MIMAS at the University of Manchester: <http://zetoc.mimas.ac.uk>
 - 2 Department of Human Sciences, Loughborough University: <http://www.lboro.ac.uk/departments/hu/>
 - 3 **zetoc** evaluation report: <http://zetoc.mimas.ac.uk/question.html>
 - 4 The British Library's Document Supply Centre in Yorkshire: <http://www.bl.uk/services/document/orddocs.html>
 - 5 More information about Z39.50 can be found on the UKOLN website: <http://www.ukoln.ac.uk/dlis/z3950/defin.html>
 - 6 More information about MetaLib can be found on the Ex-Libris website: <http://www.aleph.co.il/metalib/index.html>
 - 7 More information about X-Grain can be found on the EDINA website: <http://edina.ac.uk/projects/joinup/xgrain/>