Editorial: Evaluating the quality of library portals

Purpose of this paper	To investigate ways of demonstrating how portal implementations positively alter user information retrieval behaviour.
Design/methodology/approach	An opinion piece reflecting on existing evidence about the nature of portal implementations, which extrapolates trends in user behaviour on the basis of these reflections.
Findings	Although portal technologies probably do offer a way for libraries to create information tools that can compete with 'one-stop shop' Internet search engines, there are likely difficulties in their pattern of usage which will have to be detected by effective quality measurement techniques.
Research limitations/implications	An expression of opinion about the possible pitfalls of using portals to optimise users' information retrieval activity.
Practical implications	This opinion piece gives some clear and practical guidelines for the evaluation of the success of library portal implementations.
What is original/value of the paper?	This editorial points out that, because the portal can be defined as a deliberate clone of a typical successful Internet search engine and may be presented to the naïve user in the same terms, the danger is that library portals might also clone the same information habits as Internet search engines, because of their ease of use. In trying to produce a tool that can meet Google on its own terms but with better content, we might reproduce some of the same educational disbenefits as Google: quality information retrieval is not purely a function of content, it is also a function of the user's perceptions and information habits.

Keywords: Portals; Libraries; Performance Measurement (Quality); Information Services.

Introduction

There is a great tragi-comic moment in the children's film, 'Toy Story (I)', where a thuggish child takes a trio of toys to the door of his house. One of the toys, a green plastic alien, gets very excited at the prospect and exclaims 'Behold, the mystic portal awaits!' But on entering the portal, the diminutive alien is devoured by a dog.

The other two toys are more savvy: they treat the 'mystic portal' with the suspicion it deserves and live to exact revenge on the horrible child and his vicious canine. There is a lesson in this for all of us: be suspicious

about portals, mystic or otherwise, because you may be making assumptions about them that you later regret.

Putting that to one side, if it's worth thinking fairly carefully about what to expect from a portal, we should certainly be careful about what we expect from them in a library context. And as a first step, we should define what the term means to us.

Here we will take the term 'portal' to mean some sort of searchable network information retrieval service, powered by an effective search engine that gives access to content. Whereas 'gateways' or 'hubs' simply present descriptions of information sources and content, portals give the user both descriptions and a means of pulling the described objects through to the user (JISC, 2005). JISC's FAQ also points out that 'a key feature of portals is their ability to search across many distributed resources', something of particular interest to librarians wanting to offer a one stop shop alternative to Google-users.

As we know, in sharp contrast to Google, discrete electronic information services with highly differentiated interfaces present a problem to less confident information users. Portals might well present the library's answer to this problem. They should offer a 'one-stop shop' level of service that is at least different to, and hopefully better than the network services that predate them. So there is an issue of quality and quality measurement here: if portals are so good, it's important to show how and why they're so good.

To this end, there are now in the UK a number of valuable case studies on the implementations of both portals and open url resolver technologies. These make a persuasive case for the power of the portal as an effective, library-based network service, one rivalling Google in the affections of library users. In offering a single simple interface and unified way of broadcasting searches across discrete searchable targets, the user seems guaranteed to get more hits than they would through toiling away, searching single database services through tailored interfaces.

However, it is important to be aware of the limitations of purely quantitative measures for quality measurement of such portals. A previous authoritative Loughborough case study (Hamblin and Stubbings, 2003) reported increased database usage brought about by their library's implementation of SFX and Metalib: 'there has been a significant increase in the use of electronic resources. In one instance this has been a ten-fold increase compared with the equivalent before the implementation of MetaLib'.

However, this fact needs to be treated with a little caution: it may not be surprising that any technically clean implementation of a portal leads to increased use of library databases. It could just show that computers compute. This study does indeed make these reservations clear, saying that 'a structured survey of the habits of usage of MetaLib has not yet been carried out...' Churning through more database information than before does not necessarily prove that the quality of information retrieved

is any better, and usage must be investigated further in some way. A later valuable study of library portal implementations from LISU makes this point very clearly: 'Usage of databases may have increased but this does not indicate the quality of the information found by the user and whether he/she is satisfied with the results' (Hamblin, 2004, p. 33).

It could be argued that statistical analysis of full text downloads (content) rather than database use (bibliographic descriptions) is a better quantitative measure of portal effectiveness. Many electronic databases (Web of Knowledge, SciFinder Scholar, Embase and the like) are essentially metadata tools that point to full-text resources that sit elsewhere, either in full-text e-journal archives or on library shelves. Such databases are just a means to an end not an end in themselves. So it is an increase in the number of full-text downloads, as cited by Exeter University Library in their portal implementation (Hamblin, ibid, p. 11) that should matter more than an increase in metadata usage.

However, there are pitfalls in this measure as well. If we make the arbitrary assumption that the motivated student user will happily work through as much metadata as possible to get the best possible twenty references on their subject (but no more than twenty, because that's all they can cope with), it is arguable that portal implementations may increase local database use, but not necessarily increase the amount of full-text downloads taken – and yet still be effective. Student time is limited and consequently so also is the amount of full-text information which they can digest*. The processing of database metadata can be compressed technologically but the human act of intellectual interpretation cannot be speeded up mechanically since you can only read a limited amount of material intelligently (especially if you are a modern student with a part-time job!).

On one level there's no difficulty with this. Ultimately if portals do help the student retrieve a better set of twenty full-text items than before, then the lack of an increase in full-text downloads is hardly problematic. But we are still left with the need for substantial evidence of some sort of qualitative benefit from the use of a portal. And meaningful evidence of improvement is always needed if expenditure on any software purchase is to be justified to those who manage the funding of library services.

This leaves us of course with the option of seeking subjective feedback from portal users by means interviews and questionnaires. This is an option that all libraries with any sort of commitment to quality assessment and service evaluation will undoubtedly take, once their portal has been used by their customers to a significant extent. The online survey from the Contextual Resource Evaluation Environment (CREE, 2005) project is an example of this, although it is not an evaluation of an established institutional service as such, and may seem rather abstract in consequence. The rich user survey data summarised in the 2004 portal report (LISU, 2004) gives a very good idea of the complexity of analysing feedback on real user behaviour in regard to these tools.

But if such a survey showed indisputably positive feedback from institutional portal users about the quality of the information it retrieves for them, would this be conclusive proof of benefits of portals? Proof that they could save the day for libraries by beating off the challenge of Google? Not necessarily.

It is ironic that librarians themselves have been pointing out the folly of applauding Google in these terms: just because it retrieves more information than ever before, it doesn't mean that the quality of information retrieved is any better. Nor does the high customer approval rating of Google show that users are getting the right sort of information. The concept of the 'satisfied inept ' was introduced by Plutchak (1989) to underline exactly this, the difficulty of relying on subjective approval by users of the information they download for free off the web. Thus the satisfied and inept end user will give obviously give positive but misleading evaluative feedback via a portal questionnaire, just as they do about Internet search engines.

So the difficulty for librarians in evaluating portal use is that, on the one hand, the portal is a deliberate clone of a successful Internet search engine, and seeks to be perceived in the same terms. But on the other, the danger is that library portals will also clone the same information habits as Google, because of their ease of use. Obviously the fact that the content residing in the library portal is superior to the free content sitting on the open internet should be the saving grace of the library portal. But to know that such content is genuinely being used to the best possible end needs more than a cloning of the same evaluative methods that internet search engines use. Big numbers of retrievals and user popularity is not enough in library terms (although for internet search engines where advertising revenues pay the bills and generate income, such measures are fine).

So the irony is that in trying to produce a library service that can compete with Google, we can reproduce its disadvantages as well as its advantages. This is not what we expect – we could walk towards the long awaited portal and, rather than entering information nirvana, end up being bitten in a painful place.

However, all is not lost. The loudest complaints about student information use heard today in fact come from educators, from academics and teachers, frustrated by reading student work based on shallow snippets assembled piecemeal from readily available web sites. This indicates quite categorically that not only should qualitative investigations of the effect of portals on information-led learning outcomes investigate student opinion, They should also investigate tutor opinion.

Thus, having looked for both increased levels of use of electronic resources, and increased satisfaction felt by students, the essential third step in portal evaluation is to ask the educators of student portal users if they are happier with the information component of student work as facilitated by their portal usage, in contrast to pre-portal student behaviour influenced by Google. If they were happier, this would go some

way to proving that portal use has not just increased numeric measures of electronic services and pleased Google-addicts, but most importantly has been of genuine educational benefit. Put succinctly, this third step would show that portal usage is demonstrably information literate.

For this to happen, educators would have to 'buy in' to information literacy – and increasingly they are doing so these days. Not least because, if the three step evaluation methodology described above were implemented, it is possible to envisage a situation in which students described increased satisfaction with their portal-mediated information retrieval at the same time that educators described a decrease in their own satisfaction with information-dependent educational outcomes. In which case, effective interventions on the part of educators would be essential to make portal usage as educationally beneficial as possible – and the learning framework of information literacy would be the ideal background to inform these interventions.

Similarly, LIS professionals would be well placed to help remedy such an unexpected outbreak of 'Google-itis' (in the absence of Google!) No information tool – even the portal - is so powerful that it nullifies the need for some degree of learning on the part of the user, which in turn means that experts in the use of information are also needed to facilitate the necessary learning outcomes in the user.

All of which demonstrates the need for a systematic process of evaluation and quality measurement, as a prelude to any such educational intervention. The much admired portal, with all of its benefits, mystic or otherwise, does indeed await us as one of the next big library service developments. But in order to avoid a painful sense of disappointment we need to use many of the well established tools of information management to make the best of it.

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Editor,
'Library Review'.

Notes

* If time is limited so is money: future full-text downloading may also be limited by pay-for-use charging mechanisms. This would make any anticipated increase in full-text downloading an unlikely measure of portal effectiveness. Cost considerations would keep a perpetual lid on increases in full-text usage. The emphasis would be on getting the best minimal

number of references, rather than getting a bigger, better set of references.

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