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Title: The Irish Research electronic Library initiative – levelling the playing field?

Abstract: Purpose - The Irish Research electronic Library (IReL) is a nationally funded electronic research library providing online access to full text articles from thousands of peer-reviewed publications in a range of disciplines. This paper examines the opportunities that have arisen for academic libraries at a local level in terms of how they expose resources and promote the initiative. It discusses the challenges that have arisen as libraries enhance, or indeed introduce, value added services to their research community. It examines the results of an in-depth national survey which yielded invaluable insights into how Irish researchers were using library services. Finally, it reflects on the challenges libraries face in facilitating and nurturing research behaviour.

Design/methodology/approach – In the first quarter of 2007, seven university libraries asked their researchers for feedback on how they use IReL resources and their awareness of the initiative in the form of a national survey. These results and in particular the feedback from DCU researchers are further analysed. Focus groups and visits to research centres also provided more in-depth analysis.

Findings- This paper finds that a collaborative approach to the negotiation of a single national licence for seven academic libraries, with associated training and a discount for consortium contracts has been highly successful. However, it has also posed significant challenges for all libraries in terms of ensuring that the resources are fully exploited and that the necessary support structures are in place to facilitate the provision of appropriate services to the growing research community.

Originality/Value –This paper will be useful to libraries planning services for fourth level researchers and in particular, services that promote access to online resources.

Keywords: Academic Libraries, Ireland, Marketing, Researchers, Electronic Resources, Consortia.

1. Introduction

The Irish Research electronic Library (IReL) provides access to a wide range of electronic journals for researchers in Irish universities. Through a consortial approach, IReL has enabled all seven Irish university libraries to negotiate for licences for approximately thirty five thousand full text journals. The availability of this electronic journal library has brought new challenges to librarians in terms of service provision for their researchers.

This paper examines the case of libraries that have capitalised on these challenges and also discusses examples where these libraries have further collaborated. It examines the results of a national survey which asked Irish researchers what they thought of the IReL initiative and how services could be improved to ensure the initiative was more accessible. It also raises important planning issues which will determine the future success of the relationship between librarians and the research community they serve.

2. Background to IReL

Between 2000 and 2006, the Irish Government allocated €2.471bn for research, technological development and innovation, the majority of which was directed at funding research in the higher education sector.(Higher Education Authority, 2004)

This funding was to enhance national intellectual capital to the levels necessary to sustain international competitiveness:

Ireland must both retain its best researchers and attract the best from abroad. Researchers operate in a global market and Ireland must compete
(Forfás and Higher Education Authority, 2003)

If Irish research was to compete on a global playing field, there would have to be provision for an information infrastructure that both supported national research and attracted researchers of the highest international calibre:

Developing a research infrastructure to sustain a research intensive environment ..includes equipment, technician, library and IT support …so that expertise can be built up in research teams that is sustainable (OECD, 2004)

In addition to attracting researchers from abroad, there had been a growing evidence to suggest that only those researchers who compete internationally, will be *likely to receive substantial funding as peer review using international referees becomes more commonplace.*(DCU, 2006)

If they are going to compete internationally, Irish researchers require an information infrastructure that's on a par with their international colleagues.

In tandem with this desire to attract international researchers to choose Ireland as their preferred location, there has been a rapid growth in recent years in cross institutional and collaborative research within Ireland. These teams have sometimes been widely spaced geographically and collaboration has often been achieved virtually.

Inevitably, problems have arisen with the provision of information resources at project level, with libraries of the institutions involved offering different journal holdings. As researchers began increasingly collaborating with their colleagues in other Irish institutions, there was a growing awareness that in terms of information resource provision, there was an uneven playing field. [i]

Consequently, the Irish research community began to exert considerable pressure on its funding bodies to provide the necessary information infrastructure. At the same time, the IUA (Irish Universities Association) Librarians Group had been actively pursing the concept of a shared electronic journal collection.

This lobbying was successful when, in 2002, the IUA Librarians Group was invited by Science Foundation Ireland (SFI) to collectively consider, the feasibility of providing researchers with access to a national electronic library in the fields of Biotechnology and ICT. The IUA Librarians prepared a proposal to SFI and the Higher Education Authority (HEA) which was accepted in 2003 with both bodies committing to spend 4.5 million euro annually in support of the initiative.

Academic libraries have always sought opportunities to collaborate and IReL was initiated in a culture of similar international consortia. Exemplars here include BIBSA (Sweeden), FinELib (Finland), JISC Collections(United Kingdom), CALIS (China) and more recently, SHEDIL (Scotland).

Prior to IReL, there had been a considerable discrepancy between the online journal holdings of the seven national university libraries;

- Dublin City University (DCU);
- National University of Ireland Galway
- National University of Ireland Maynooth;
- Trinity College Dublin
- University College Cork
- University College Dublin
- University of Limerick.

The realisation of the IReL initiative has meant these differences have been largely minimised.

3. Administration of IReL

Through a public tender process, the IUA selected a company: Content Complete Limited (CCL) to negotiate on their behalf for content with the

publishers. It was decided that a company owned by the IUA Librarians Group – IRIS Ltd would administer the project. In 2004, the IUA appointed an IReL Steering Group (ISG) which was charged with evaluating the terms of negotiations as put forward from the publisher via CCL. This group was comprised of representatives from each of the seven IUA libraries.

The initial stages of the initiative saw the drawing up of 'wishlists' – namely a list of resources as requested by the research community in each of the seven institutions. The lists were collated with resources receiving the most requests assigned priority. The resources sought in the first phase of IReL (2005) were in the fields of Biotechnology and ICT. In 2006 IReL was extended to the areas of humanities and social sciences.

To date IReL has realised the acquisition of 51 databases, over 4,000 journals and over 12,000 monographs in the area of Science Technology and Medicine, and 33 databases, over 18,000 journals and approximately 29,000 monographs in the humanities and social sciences.

4. Challenges for IReL libraries

With the consortial acquisition of an increasing number of full text journals and databases, it had become evident that libraries needed to adjust and enhance their work practices. Upon receiving confirmation of approved deals, each steering group representative, or a named contact, had to ensure that access to all resources was set up, tested and that the resource(s) were populated into the various resource discovery tools – I will discuss the advantage of these tools in the promotion of IReL resources in a later section. It was imperative that information regarding access, holdings information and conditions of each licence was communicated in a timely and efficient manner to all relevant library staff so that they in turn could communicate it to the user community.

It was decided from the outset that whilst the negotiation for and acquisition of each resource would be carried out at consortial level, it would be up to each individual library to decide how they wished to process, expose and promote these resources locally. From the point that access to an IReL resource was enabled, the online holdings for each institution looked relatively similar. It was from the point each institution chose to add value, that the playing field became uneven. This was achieved in two ways – the employment of dedicated personnel and the implementation of resource discovery tools.

4.1 Meeting the challenges – dedicated personnel?

With the exception of three libraries, the remaining institutions have added the extra processing and promotional workload that IReL has brought, into their existing workflows. Each of the remaining three libraries has employed a full time Research Support Librarian (RSL) to promote the initiative and provide training to their research community. In the case of DCU, one full time staff member was employed across two departments; Collection Management Services - to manage the setting up of resources and Information & Public

Services – to market the initiative and provide information literacy training to those research teams that were funded by SFI.

The employment of dedicated library personnel to serve as advocates for the initiative has reinforced the library's role as provider of the resources to the research community. As an RSL is solely responsible for meeting the needs of researchers, they are afforded the opportunity to identify and remedy issues that are pertinent and in most cases largely unique to the researcher. In order to support the research needs of their institutions, RSL'S have to first identify who their researchers are. Establishing a rapport with the institutional research office and human resources is paramount to understanding the structure and culture of the local research community. In DCU, we found the direct consultation with these units invaluable.

Attendance at research support unit meetings was another way to keep up to date with local research activity. However, even though these relationships were hugely fruitful, it has proved difficult to keep completely abreast of research team membership. Thus, liaison with the research community presents a number of challenges, not least of which is the transience of many of the individual relationships which are formed.

4.1.1 The research support librarian in DCU

The RSL role in DCU was to identify those researchers who were affiliated to a centre but not a school. Obtaining the names of this latter group was difficult as administration records did not differentiate researchers solely affiliated to a centre.

The establishment of a library liason officer for each centre was highly effective. The liason officer was typically a member of a research team usually responsible for administration or education outreach for that centre. Given that the post of RSL was entirely new, this point of contact was vital to understanding the composition, area of research and requirements of each team.

Interdisciplinary research teams have brought new challenges for us. Due to the multifaceted nature of their research, it can sometimes be difficult to identify suitable journal material for these 'hybrid' users. Articles that may prove useful are often contained in titles that would not naturally seem logical. Often, researchers find it difficult to articulate what it is they themselves need to see and use. Thus the honing of the traditional skills of a good librarian – getting to know their users areas of research through skilful enquiry and interview is paramount.

Another challenge has been the increasing tendency for researchers to use library services remotely. With IReL providing desktop access to such a substantial amount of top quality journals, we have witnessed a marked decline in the number of researchers entering the library building. Yet, this challenge has also presented itself as a welcome opportunity for us as we reviewed how we interacted with our researchers.

As the first IReL resources became available, we undertook to visit every research centre whose teams were funded by SFI. These visits were not just about promoting the initiative and highlighting key ‘niche’ resources relevant to the teams, they were about us getting to know our users and more importantly, ensuring the library had a visible presence on campus. The teams were appreciative of our visits and this contact enabled us all to put names to faces thus providing a basis to enable the support relationship to flourish in future.

5. IReL and the need for value added services

The implementation of IReL has provided access to a world class information infrastructure which heretofore did not exist. It was not enough to secure access to leading research; as gatekeepers of this research; librarians would also have to ensure that appropriate systems were deployed to ensure adequate retrieval of this research.

Before IReL most IUA libraries had implemented electronic journal finding aids such as A-Z lists. As IReL resources became available, with some publisher deals providing thousands of individual full text journal titles, it became imperative that these tools were fully utilised.

None of the IUA libraries had implemented link resolver technology before IReL resources had come on-stream. With the arrival of so many full text resources, it made sense to utilise a link resolver to expose these resources especially as many researchers rely on abstracting and indexing databases.

It is important to stress the importance of the combination of appropriate skills training with these finding aids. Through discussions in DCU, we have seen that a substantial proportion of researchers are reluctant to try new resources. It is the role of the RSL to introduce these researchers to resources which they would not otherwise have utilised.

Whilst the benefits of federated search products have often been espoused for undergraduate students as a one-stop-shop service, they can provide much benefit to the researcher by highlighting publisher resources that may have otherwise been missed. The federated search engine also facilitates the increasing frequency of cross-disciplinary research projects. Since the roll out of IReL, two libraries have harnessed discovery of these resources through the implementation of federated search engines.

6. Evaluating IReL

Whilst promotion of IReL was carried out locally, the IUA Librarians Group was keen to ascertain how successful the initiative had been nationally. A monitoring group composed of representatives from all seven institutions was formed. The terms of reference for this group were as follows:

- Collate and monitor performance statistics in relation to the value for money of IReL titles
- Collate and monitor downtime of IReL titles
- Suggest retention or cancellation of IReL titles based on information gathered
- Provide summaries of changes of content in IReL major services i.e. deletions of titles or addition of new titles.
- Note deficiencies of IReL information supply with regard to specific areas of research
- Suggest ways of continuing to promote the IReL service

One of the key outcomes of this group was the design and implementation of an IReL Impact Survey.

6.1 User survey

Following a brief literature review of methodology used to survey users of academic libraries, it was deemed appropriate to use both quantitative and qualitative methodology for the following surveys.

In 2005, CONUL (Consortium of National and University Libraries) had undertaken a national survey to determine library support to researchers. Although this survey was not querying the uptake of electronic journal provision, or indeed the IReL initiative specifically, it illustrated user awareness of IReL before value added services - namely, the employment of dedicated research support librarians and digital finding aids (fed search, A-Z lists etc) – had been wholly embedded.

In 2005, when researchers were asked if they had heard of IReL, 26.7% or 856 of them, said yes

When asked if they would value the introduction of a Research Support Librarian, 70% of researchers said yes. (CONUL, 2005)

Following on from the CONUL survey and given that IReL had been rolled out for over two years, the IReL Monitoring Group, designed a survey in the first quarter of 2007 to assess the impact of IReL. Researchers across all faculties in the seven university libraries were surveyed.

Before the survey was finalised and circulated, the Monitoring Group felt it would be beneficial to hold focus groups to ‘road test’ the survey’s structure and content. These were held in three universities, one of which was DCU. Researchers from all faculties and levels attended.

Whilst the focus group yielded useful feedback on the composition of the survey itself, it was the attendees’ comments and opinions on IReL and its service implications that proved most insightful. This quantitative feedback was invaluable to the local research support role. When asked about their awareness of IReL, one researcher commented:

"I'm aware of IReL branding because of the logos. Neuroscience coverage is good. It's crucial that as many journals as possible are available. The Library is decent and has standard journals. Back issues are important (e.g. Nature).I prefer e-availability. The Library is not open all hours. When I'm researching I need to know everything intensively right now. Print is only better for articles with imaging where the better quality of resolution is important."

Approximately half of the focus group participants were from a Humanities or Social Science background. It was interesting to note that there was much less awareness of IReL amongst this group. This may be due to the absence of an RSL post serving the humanities and social science community.

6.1.1 Survey results

Awareness of IReL

Upon examination of the findings of the IReL Impact Survey of 2007, there was clear indication that awareness of the initiative had doubled since the CONUL survey in 2005 (Figure 1)

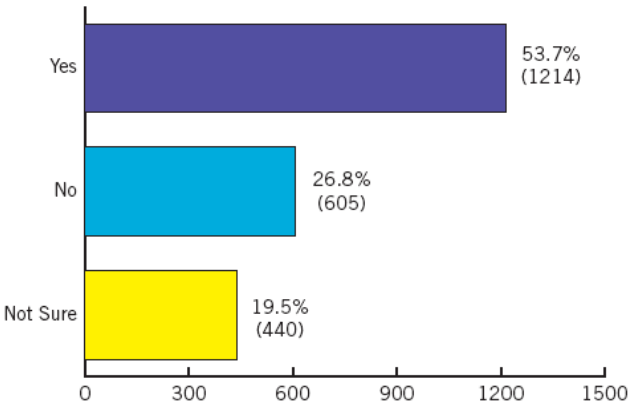

Figure 1 : Had you received information about IReL prior to participating in this survey?

By institution, DCU recorded the highest percentage of researchers who had received information prior to participating in the survey. The presence of a research support librarian since 2005 may have influenced this finding and highlights the importance of investing in resource promotion as well as resource acquisition.

Impact of IReL on research output

This question invited free text comments on how IReL had impacted on respondents' research. 1,624 of 2,266 (72%) of participants provided comments some of which are displayed here (Figures 2, 3 & 4)

Theme	Rank	Frequency	Comments
Ease and speed of access to research information	1	654	• Makes literature review much faster and more comprehensive • Irish researcher is now on par internationally • Improved research efficiency • Makes the difference between being able to do research or possibly none at all

Figure 2

Many researchers thought IReL resources allowed them to compete at the same level as international counterparts (Figure 3):

Theme	Rank	Frequency	Comments
Breadth and depth of research	2	436	• Significantly increases both the breadth and depth of research opportunities • Positively influences the decision to perform research within Ireland • Access to sources that are up to date and cutting edge in an extremely efficient way

Figure 3

Approximately 20% of respondents directly attributed their ability to situate their own research in a multidisciplinary context to the availability of IReL resources. It is also interesting to note that almost the same proportion of researchers attributed the initiative to allowing them the opportunity to select potential collaborators. (Figure 4)

The latter finding tallies with another survey question which asked researchers to indicate their usage of non journal resources (Figure 5) and reinforces the need for dedicated staff to serve the specific needs of researchers with appropriate training in accessing research performance data, citation analysis and further strategies that will maximise their research output.

Theme	Rank	Frequency	Comments
Increased research productivity	3	297	• Assists in ability to situate own research within multiple fields • Allowed the ability to select potential collaborators • Range of online journal resources through IReL greatly improves research capacity

Figure 4

Do you use any of these other IReL SCIENCE/TECHNOLOGY/MEDICINE information sources? (please select all that apply)		
Response	**Count**	**Percent**
Web of Science	880	38.8%
Web of Knowledge	688	30.4%
Science Citation Index	604	26.7%
Journal Citation Reports	334	14.7%

Figure 5

International competitiveness

Question 23 in the survey offered respondents a five point scale from which to agree or disagree strongly with the statement "IReL has increased the competitiveness of Irish research internationally" (Figure 6)

The researchers who agreed with this statement (61%) stated that IReL made it easier to "recruit new staff and research students, to attract visitors and to improve research productivity….one researcher commented that IReL is 'the only place where our research infrastructure across the board is of international standards'". (Pg 43 IReL Impact Survey 2007)

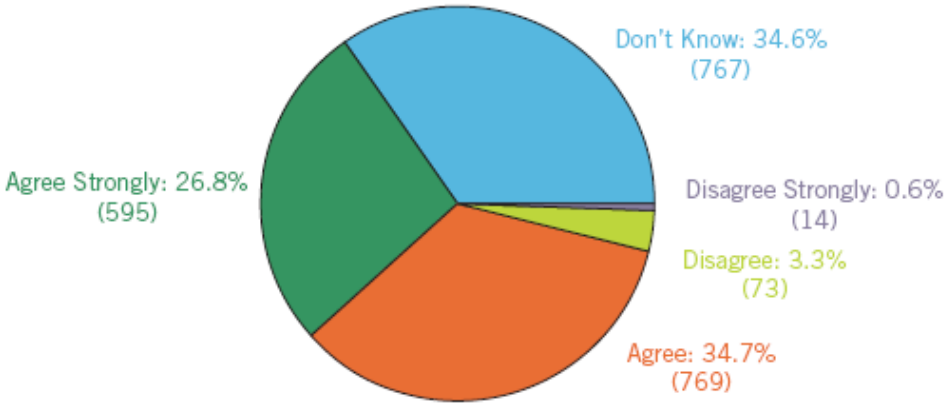

Figure 6

Resource discovery

Almost a quarter of the survey participants utilised the General Comments section to highlight the need for greater discipline focused promotion and instruction on how to exploit its resources fully. Again this reinforces the need for appropriate research support personnel to provide these services.

Others commented that the existence of multiple access points to content is confusing. Such comments reinforce the validity of and requirement for a federated search function. A previous question had asked how users accessed IReL resources. Almost 72% indicated the library website as the primary route of access. Whilst it is encouraging that researchers identify the initiative with the library, this questions also highlights a challenging trend.

Branding and identity

Non library access points such as Google Scholar are being increasingly accessed and unless librarians begin to brand the availability of IReL resources through Google Scholar, their role in acquiring these resources will be unknown by their users (Figure 7)

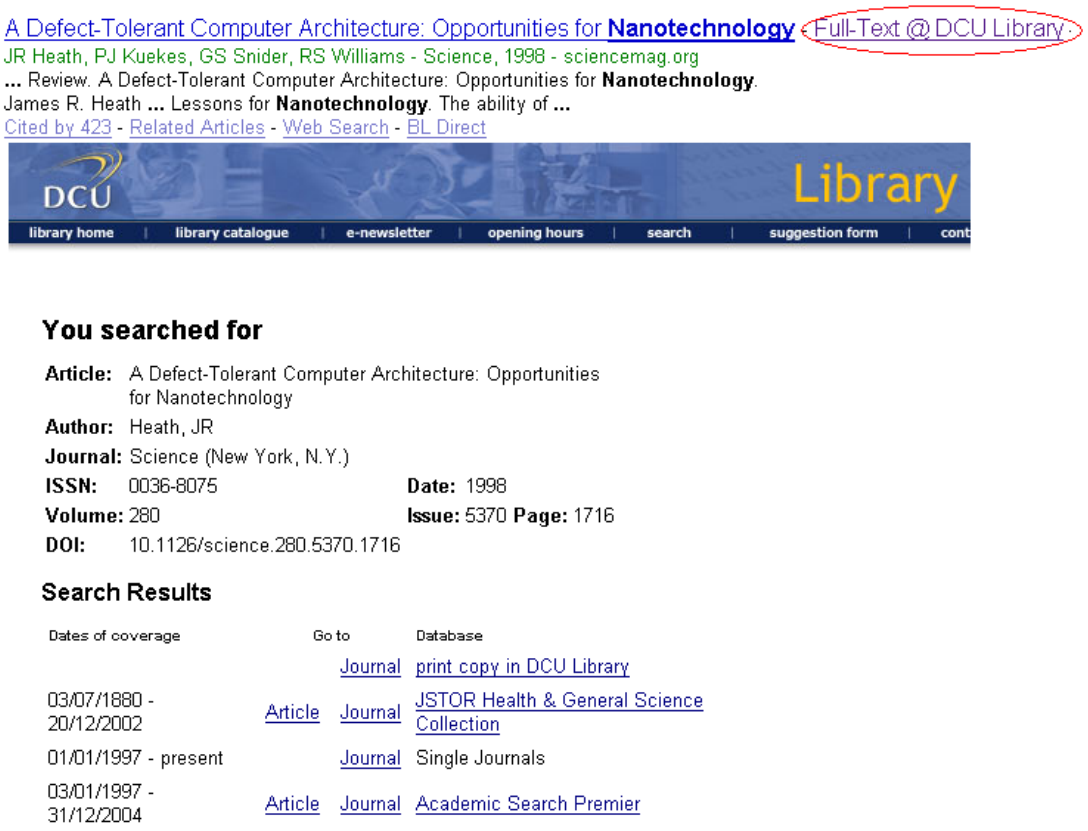

Figure 7

Promotional opportunities at consortium level have included the branding of publisher websites to acknowledge the library's role (Figure 8)

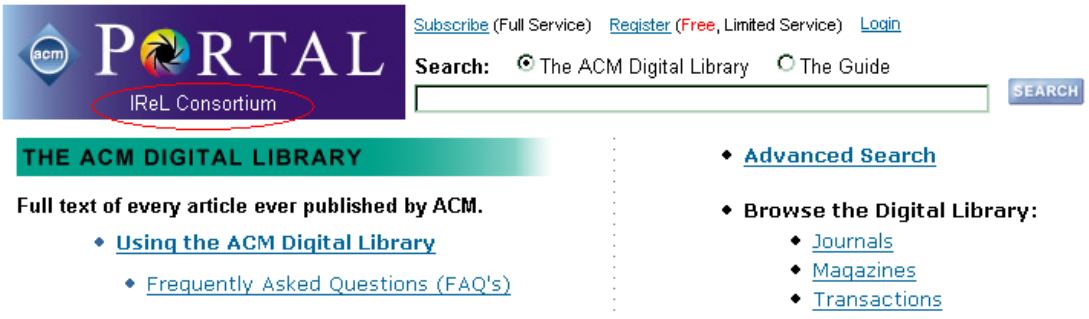

Figure 8

In 2007 the IUA Librarians Group set up a website development group to design a site that would serve as a resource management system for librarians, an information point for publishers and a shop front for promoting IReL to researchers. It is hoped that the availability of this site will serve as a single national portal further facilitating those researchers involved in inter institutional collaboration.

7. The impact of IReL on how libraries support researchers

Historically and particularly in the print environment, researchers had to come to the library to access resources. As Dempsey explains, this is no longer the case and librarians are required to engage with researchers in a space and time that suits them:

Some things you just had to go to the library for. In the current Web environment, this is no longer the case. There are many demands on attention and many resources are available. …the library 'offer' needs to be clearer (Dempsey, 2006)

Thus if the role of future research support librarians is to survive, it will, by necessity, have to involve "getting out there" and joining the social networking spaces of its users. Researchers need to be considering the library brand in their virtual research environments. One of the key recommendations to come out of the IReL Impact Survey also concerns promotion:

"Maximise the SIF (Strategic Innovation Fund) Graduate Skills programme, especially its information literacy module, to promote IReL to PhD students" The IUA's own 4th Level Support Network may be an ideal vehicle in which to 'structure at national level and promote integration of PhD generic, personal and professional skills development'.

Maintaining a keen focus on the strategic goals of the university will ensure that the library has a fighting chance to avail of funding opportunities. Libraries that 'design responsive library services around highly valued institutional goals will increase their visibility and effectively demonstrate the library's integral role in academia'. Researchers, by nature, are independent creatures; solely suggesting that they get in touch with any queries is unproductive.

As (Bose, 2007) illustrates: *an older model of library use involved an initial trip with a follow-up trip and finally a fine tuning trip. Now it's a continuous interactive and iterative process involving: I can find any article or even idea about anything at any time…In any project the information mining is continuous (during my experiment or while I'm writing) I can get any article or verify information.*

Locating the research support librarian in situ in the environment of the user - such as the research centre or laboratory – is one way of increasing the visibility and flexibility of the library service. This could lead to a symbiotic relationship that could witness researchers effectively influencing library policy, strategy and services. In Australia, Queensland University of Technology Library have developed the role of eResearch Access Coordinator to work across faculties, research institutes and other departments thereby enabling researchers' uptake of eResearch opportunities: *Rather than wait for advances in eResearch to mature,*

the Library has engaged with others to initiate strategic, high impact, and, to some extent, high risk specialist positions to lead our response (Stokker, 2008)

8. Conclusion

There is no doubt that the IReL initiative has been hugely popular affirming both the role of the library amongst researchers and the importance of research to society. As a centrally negotiated and administered project, it has realised substantial value for money, promoting local academic and national socio-economic objectives.

As evidenced by survey analysis above, IReL has enhanced the profile and maximised the impact of, Irish research. It has also provided libraries with an opportunity to examine not only what services they provide but also how these services are best deployed in response to an ever changing culture of research behaviour.

However, investment in information infrastructure alone is not enough. Specialist personnel with advanced subject knowledge and the ability to train research communities on information skills is also required. The provision of tools that will enhance discovery, digitisation and information organisation are also necessary.

In and of itself IReL *has* levelled the playing field by providing access to top quality journals, thus heightening the competitiveness of Irish research internationally and facilitating greater collaboration amongst Irish universities. However it is those universities that have further capitalised on the initiative - by implementing value added services such as the employment of RSL's and the implementation of research discovery tools - that have fully harnessed the real potential of IReL.

1 [That Irish researchers greatly valued the role of academic libraries was later borne out in a 2005 CONUL survey when almost 70% of respondents agreed that research grants should contribute towards the purchase of library collections]

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