The Gulliver Online Database Evaluation Tool

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Abstract:

The Gulliver Consortium is a Victorian public library based group formed in 2001. Gulliver purchases electronic databases for members and selects databases after careful evaluation on specified criteria of content, statistical and technical features and vendor viability. After some months of evaluating databases using an Excel spreadsheet, an online version was developed to improve the administration of the tool and also the transparency of the evaluation process. The online tool is also flexible and can easily grow to accommodate a larger number of databases. Additional features will be added to the tool in future "upgrades".

What is Gulliver?

In the late 1990s, the Victorian Public Library community took the plunge into the brave new world of electronic databases, initially using seed funding from the Libraries Online Project, funded by Multimedia Victoria. A range of online information databases, selected by a group of inspired public librarians, was made available free of charge to all Victorian public libraries. By the time this seed funding was expended, the benefits of consortium purchasing arrangements for electronic databases were being recognized and such arrangements were becoming increasingly common, not only internationally but also within Australia. At that time (2000) there was no such Consortium covering the Victorian public library sector. Voila! Gulliver was born. Gulliver began operating as a self-funding public library consortium on June 1st 2001, with nearly every Victorian public library service committing to the consortium. Tauranga District Libraries from New Zealand later joined as a Gulliver member. The Gulliver group is now a subcommittee of Viclink, the peak association for public libraries in Victoria.

Gulliver grows

Three databases from two vendors were chosen as the core products for Gulliver. These were Thomson Gale Corporation's Infotrac Onefile database and also the Health and Wellness Centre. EBSCO's ANZ Reference Centre was chosen to complement these databases by offering access to Australian newspapers and other publications.

Gulliver is managed by a voluntary Steering Committee which meets monthly. A business plan and a memorandum of understanding were developed for the membership.

Presentations are regularly given at conferences and Gulliver is becoming widely recognized as a highly successful and organised Consortium. Requests for further information about Gulliver were made by many libraries from various geographical areas and sectors. Gulliver now has three New Zealand library members.

Gradually a concept of offering additional databases began to take shape and Voila! BRUCE was born. BRUCE (Bibliographic Resources under a Consortia Environment) was developed in April 2002. The BRUCE databases are offered in addition to the core databases, and are all optional (unlike the core databases, which are automatically included with Gulliver membership). This approach is designed to enable libraries to be able to pick and choose the extra databases they want, and today a wide range of databases is available to libraries. Most of the BRUCE databases are not restricted to Gulliver members. At present, as well as Gulliver members, South Australian, Australian Capital Territory and TAFE (Technical And Further Education) libraries subscribe to BRUCE.

Evaluation: the Guts of Gulliver

From the very beginning of Gulliver, the selection of databases has been, and is, viewed by the Gulliver Steering Committee as crucial to the integrity and consistency of the consortium, and so from the outset, extreme care was taken in the evaluation process. Initially an Excel spreadsheet was developed to formally evaluate databases in four areas: content, statistics, vendor long-term viability and technical functionality to give a final ranking or score.

The over-riding criterion for selection of the databases is that they are to be web-based with the aim of consisting of 70% full text (this goal remains elusive). Trials are conducted by a group of libraries that have indicated that they would be willing to trial and evaluate the databases. All databases are evaluated against the above four areas. The overall ranking and who is responsible for the evaluation is as follows:

Content

Includes titles covered, interface and technical considerations for reference staff.

Weighting for Content is 40%.

Responsibility for evaluating Content lies with the individual libraries carrying out trials on the databases.

Statistics

Form of output and ease of retrieval and interpretation by libraries and whether this can be set by individual libraries.

Weighting for Statistics is 10%.

Responsibility for evaluating Statistics lies with the Gulliver Steering Committee.

Vendor Resources

Resources provided by the vendor such as support and training, as well as value added services such as pre-defined searches, long-term viability of company and product development.

Weighting for Vendor Resources is 20%.

Responsibility for evaluating Vendor Resources lies with the Gulliver Steering Committee.

Technical Attributes

Authentication, z39.50 compliance, modification of databases/interface, outputs, speed, private links.

Weighting for Technical Attributes is 30%.

Responsibility for evaluation of Technical Attributes lies with the Gulliver Steering Committee.

Spreadsheet "Not Found" (i.e. we outgrew it)

In the beginning the Excel spreadsheet was adequate, while the number of databases evaluated and the number of evaluators were small, but as both grew the limitations of this approach became more and more apparent. In addition, the fact that the spreadsheet was the responsibility of the one member of the Steering Committee who handled the evaluation process, made the "master" version vulnerable to loss of data or data integrity resulting from the possibility of multiple versions of the spreadsheet existing at any one time. Updating of the spreadsheet was a laborious task which only one person could do. The time taken for the evaluation process was quite lengthly and not transparent – other librarians were not able to see the results of the evaluation, let alone the answers to specific questions, and had to accept the endorsement (or non-endorsement) of a database virtually on blind faith. Clearly a different approach to this issue was required.

Online Database Evaluation Tool - Inception

In 2002 a solution to the dilemma was found, via a connection between one of the Steering Committee members with the Vicnet (a division of the State Library of Victoria) staff responsible for the Victorian Virtual Library website. This site was at that stage undergoing a redesign, involving moving from a static page structure to a more dynamic structure and transferring the information on the site to storage in a structured database format which would enable more efficient searching. Establishing an online database evaluation tool for Gulliver to make its evaluation process more robust, and also easier for evaluators to use, dovetailed nicely into this redevelopment. There already existed a strong link between Gulliver and the Victorian Virtual Library due to their parallel development and staff cooperation. The Victorian Virtual Library site maintained a central listing of links to databases for all Gulliver members, and a staff member from Vicnet sits on the Gulliver Steering Committee.

Online Database Evaluation Tool - Specification

It was determined that an online database evaluation tool would be hosted on a server within the State Library of Victoria, and a specification was developed. This allowed for the development of the tool which catered for the entering of data relating to online information databases being evaluated, scoring of databases and automatic calculation of the "score" of a database.

The Online Database Evaluation Tool was intended to have a number of audiences:

- General public, which could include public librarians, library managers and online database vendors
- Online Database Evaluators, who would enter their evaluations online
- The Administrator, who would oversee the entering, score selection and deletion of Online Information Databases

A formal specification for the Online Database Evaluation Tool was developed, as set out below:

Purpose of Tool:

- To display evaluation information for databases assessed by Gulliver members
- To enable new evaluations for additional databases to be added by authenticated Administrators
- To enable new sets of information to be added to the evaluation database by authenticated Editors

Features:

The tool must be:

- Searchable
- Browsable

by all users.

The tool must also allow restricted (i.e. password) access to an:

- Administration section
- Editing section.

Tables Required:

- Online Database Table
- Content Table
- Statistic Evaluation Table
- Vendor Evaluation Table
- Technical Evaluation Table
- Total Ranking Table.

Unpassworded Pages:

The following information must be viewable:

- Name of Database
- Vendor Name
- Result for each aspect of evaluation
- Calculated Result of Evaluation (numerical result)
- Date Evaluated
- Name of evaluating Library and contact person
- Comments.

Administration Pages:

The following features must be available:

- Add, Delete, Edit databases
- Suspend function.

Editor's Pages:

The following features must be available:

- Add, Delete, Edit databases
- Suspend function
- Add new tables.

Scripts Required:

The following scripts are required:

- Add/edit/delete for each of the tables
- Scripts to calculate the statistics
- Visual aid for the calculations
- Search for the databases
- Format as HTML.

A quotation for the work was provided and accepted. Several meetings were held with the Vicnet programmer while the tool was being developed to refine the layout, features and help text.

The Gulliver Evaluation Database was written using the Perl Programming Language and was converted from the existing Excel spreadsheet. The Perl program was designed to increase efficiency by modularising certain aspects of the program, for example, the automated process of working out ranking scores based on pre-defined formulas.
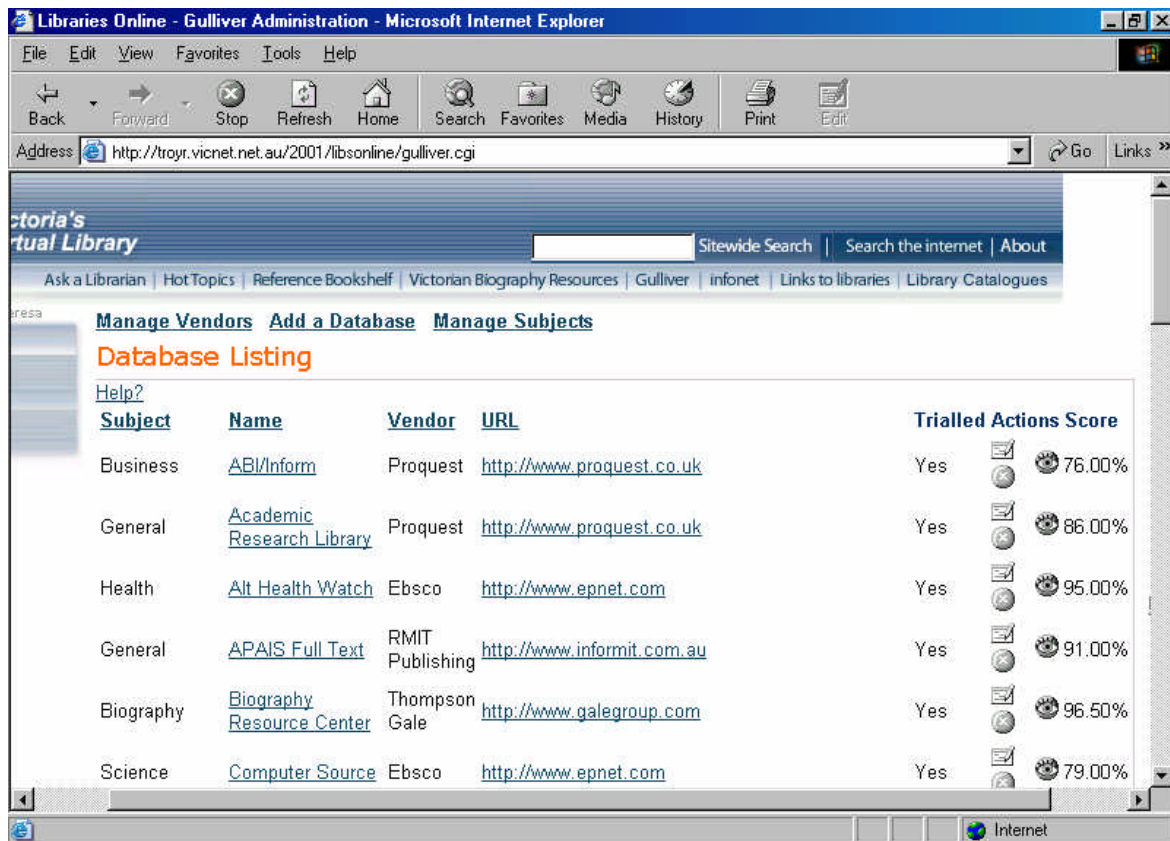
The backend database which holds all the evaluation information is stored in a PostgreSQL Relational Database. The server on which the program is stored is a Debian Linux server, is hosted by Vicnet. Total time taken from inception to completion of the tool was less than 6 months.

Online Database Evaluation Tool - So what does it look like?

The tool has a different interface, depending on whether you are the administrator (in other words, you can do anything), an evaluator (who can edit a database and complete an evaluation online) or a viewer (who can look but not touch).

Administrator and Evaluator views have adding and editing links, while the public view is purely a listing of the databases evaluated and their scores.

Administrator/Evaluator view

Public view

Online Database Evaluation Tool - So what's in an evaluation?

The Administrator adds vendors and data relating to the online information databases to be evaluated and assigns a subject to a database. Evaluators then select a database for evaluation and complete their evaluation online. The administrator then reviews the evaluations and combines the findings into one master evaluation, which is then "selected" and appears as the final scored evaluation. The final score appears on the first screen of all views as a clear indication of the quality of a database. The evaluation can then be drilled down to view scores and answers to individual questions within particular sections of the evaluation.

The Content section is the single most important section of the evaluation. To engender confidence, the evaluator and evaluating library is clearly stated so other libraries can be confident that the evaluation has been carried out by experienced colleagues. A "Scope" statement enables a concise description of the breadth of the database and any specific limitations or other relevant observations.
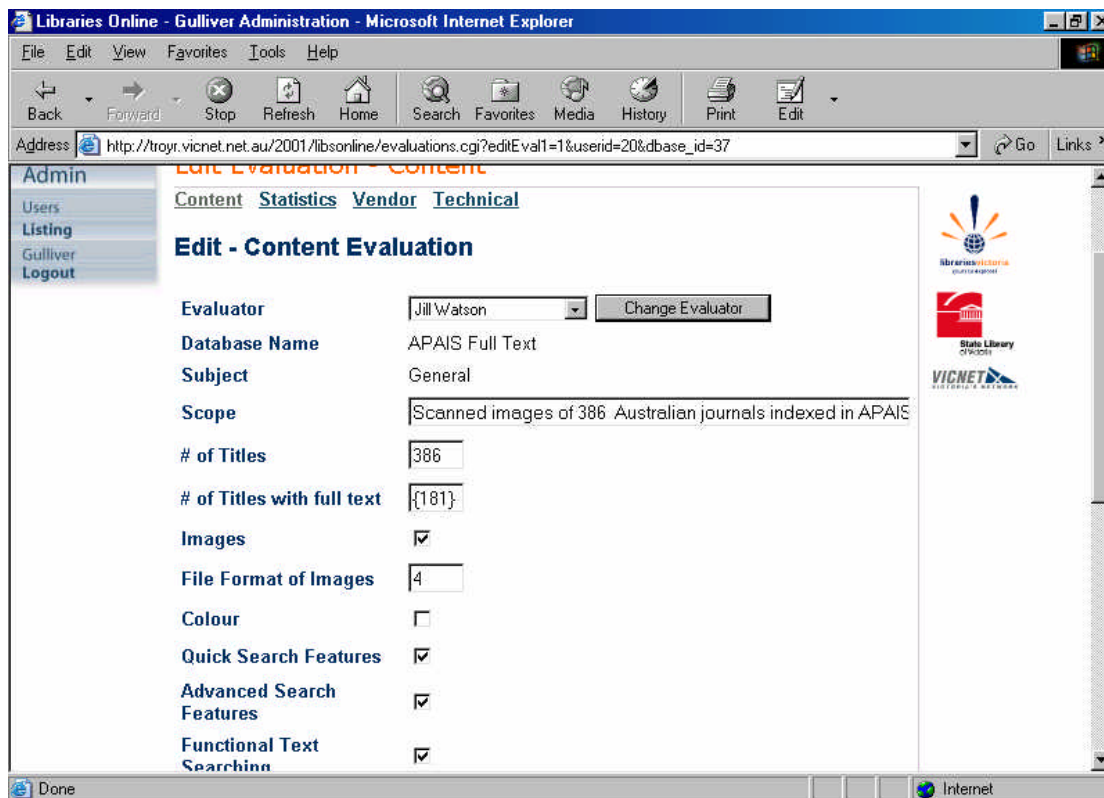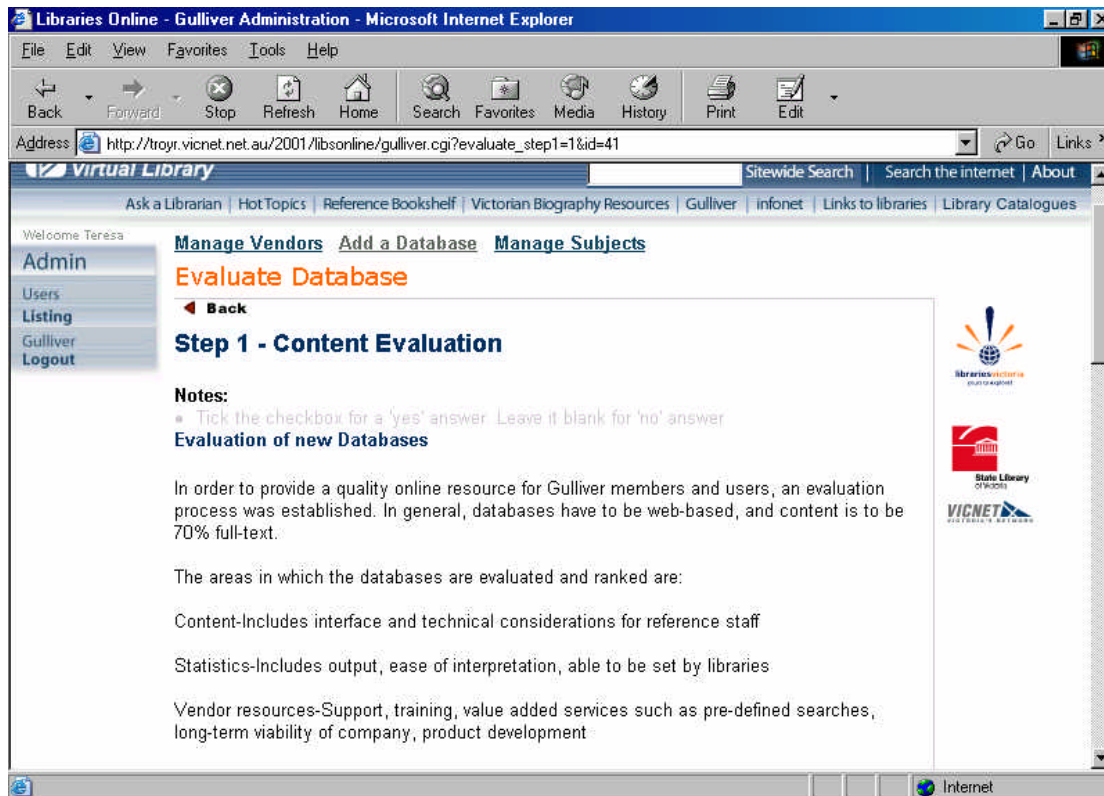
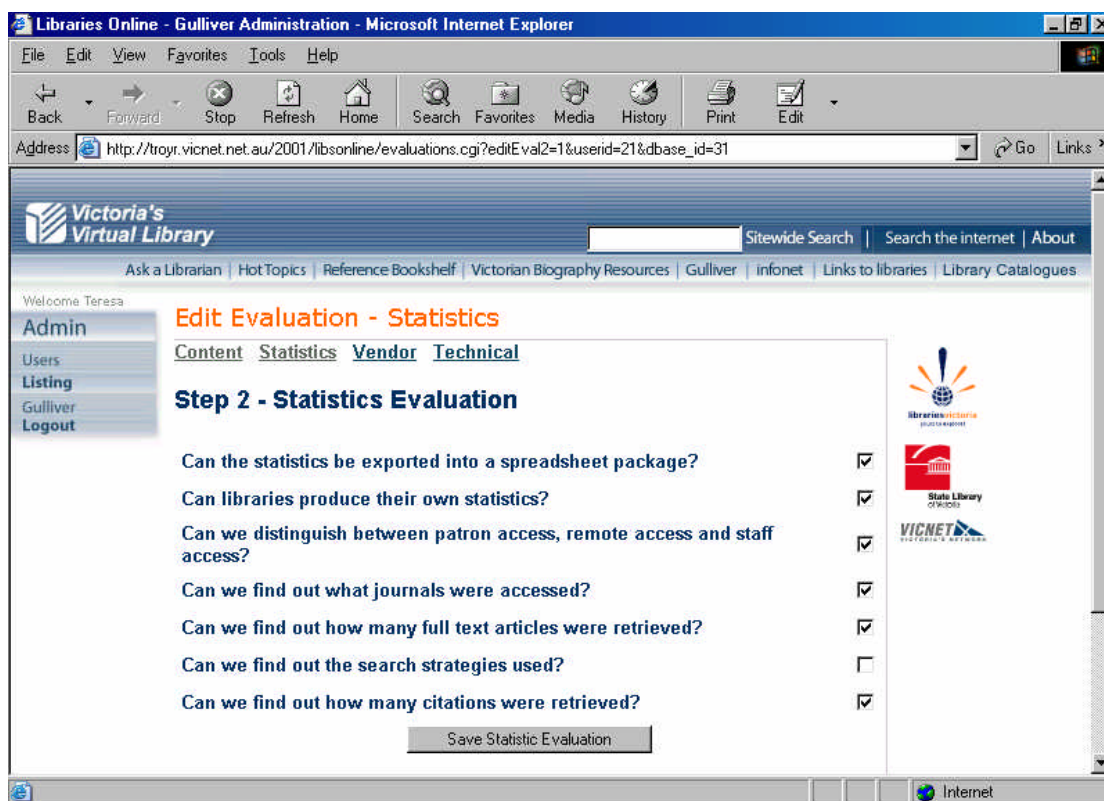To assist first time evaluators, a comprehensive Help page is included:
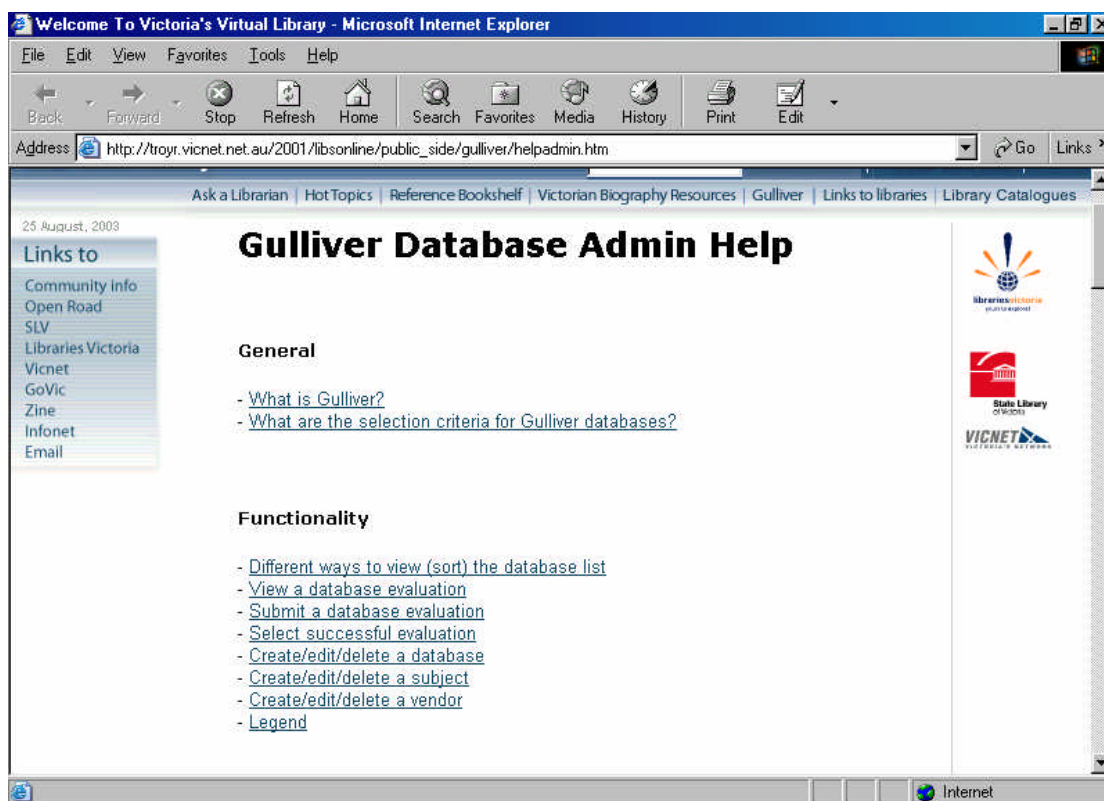
When a new evaluation is begun, some general guidelines to assist the evaluator appear at the start of the process:

Statistics information is entered simply, using ticks for "Yes" and leaving blank for "No":

Vendor evaluation is very much geared towards the training and support available:
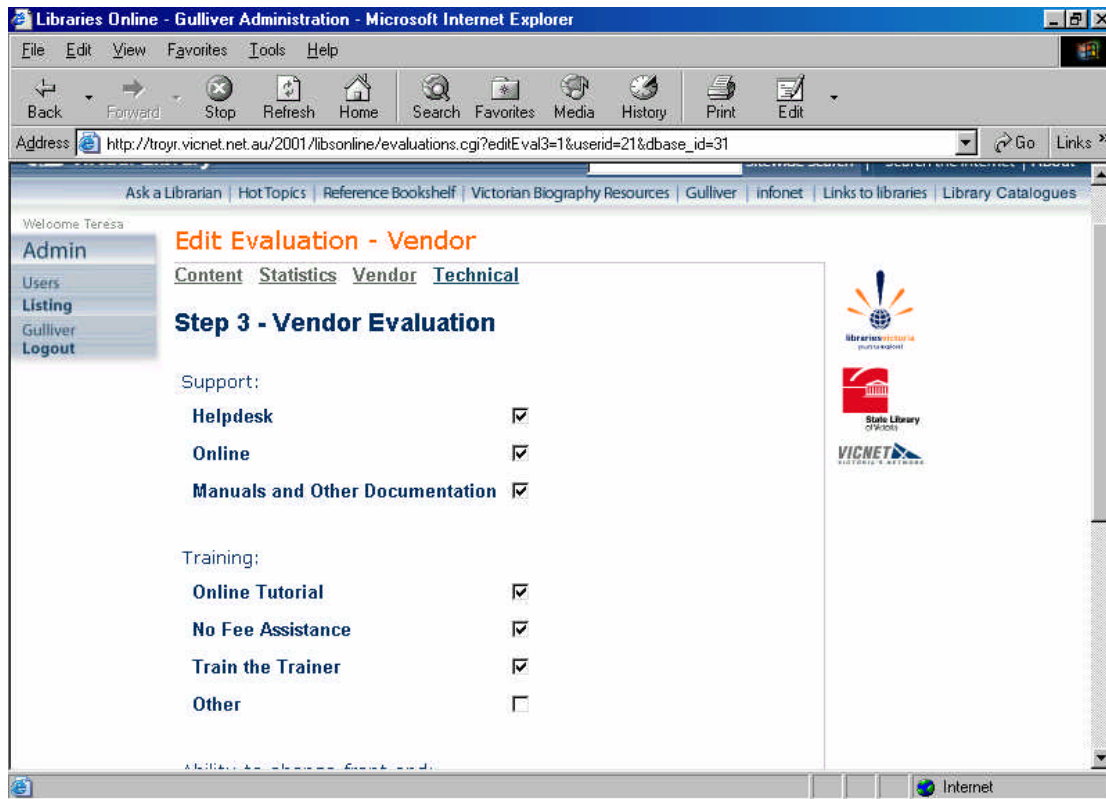
A few technical questions complete the evaluation:
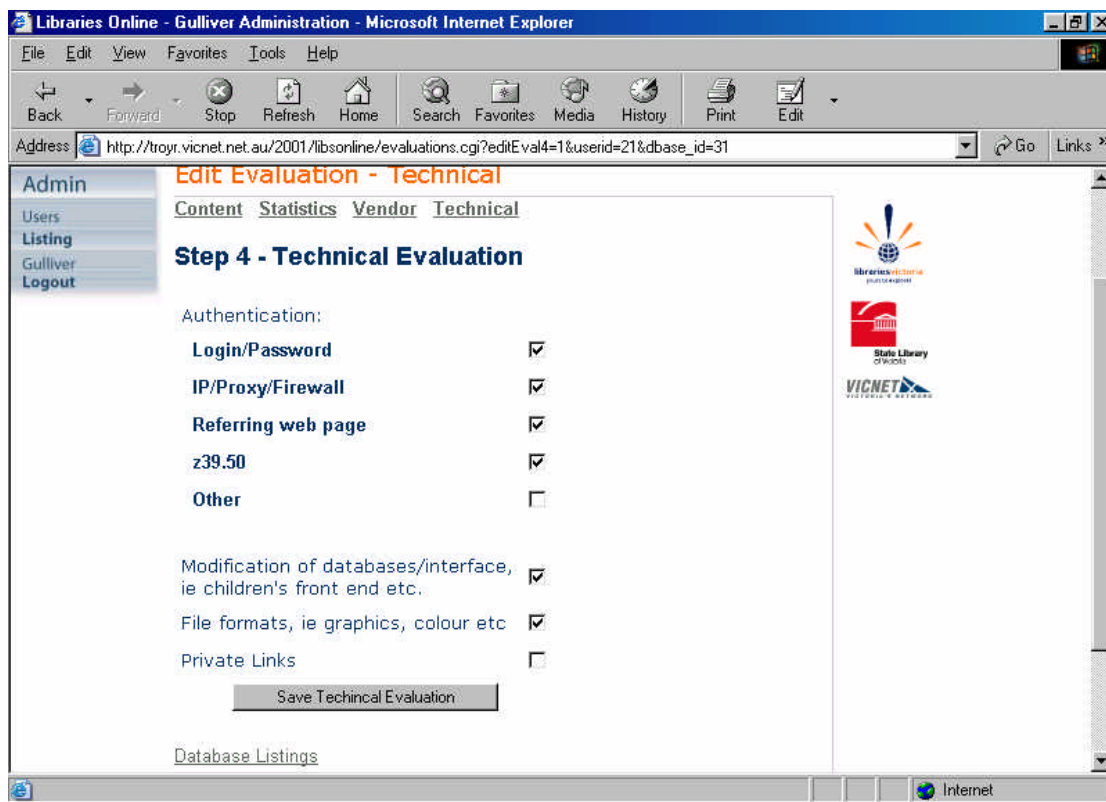
Online Database Evaluation Tool - So what does it tell you?

The evaluation tool in all its views provides complete information about every aspect of an evaluation. The answers to each question and the corresponding calculated score is shown for each question in each section.

In addition, a total score within each section is provided:

Finally, the Total Ranking Section gives the score within each section and adds them for the final figure:

Online Database Evaluation Tool - So why is it better?

The change from a single, static Excel spreadsheet as an evaluation tool for databases to the online version has many advantages:

- Administration of the evaluation process is much easier, with evaluators being able to complete evaluations directly themselves and have the results calculated and made available immediately
- Data integrity is now ensured, with the evaluations all stored on a server in a secure environment with regular backups done
- Searching across subject areas, database names and vendors is now possible
- The improved layout makes it easier to see individual answers and scores, as well as the overall ranking (both total and within sections)

BUT, MOST IMPORTANTLY,

- The online database has improved the transparency of the evaluation process by clearly detailing the performance of a database in specific areas. Library staff interested in a particular database can obtain comprehensive information about that database to assist in subscription decision making. In addition, evaluations are now available to a far wider number of library staff via the "public" view, which also increases confidence in the evaluation process.

Online Database Evaluation Tool - Reaction

The Online Database Evaluation Tool was officially unveiled at the October 2002 meeting of Viclink. This was the first time the tool was demonstrated to the broad library community, but of course quite a few librarians and vendors had been aware of it, and of the whole Gulliver project and the importance of the evaluation process, for some time. Below are a few examples of comments from various observers:

"From a vendor's perspective, I was extremely impressed with the professional nature of the database evaluation process created by the Gulliver committee… From the outset, vendors can determine that there are no hidden agendas and if the database is rejected, there is justified reasoning behind the committee's decision. " – Natalie Blanchard, Manager Electronic Sales, Thomson Gale (now with Swets Blackwell).

"The Gulliver Evaluation Database is a great tool to gain a summary of the different databases on offer through the Gulliver consortium. The information provided gives a quick overview of the strengths and weaknesses of each database and can be used for comparisons between databases when contemplating a subscription. The evaluations have been conducted by other public librarians who share the same outlook and have the same needs and can be trusted." Gail White, Information Services Librarian, Eastern Regional Libraries.

"The Gulliver evaluation database has made the process of both submitting an evaluation and viewing completed evaluations much easier for members. Being available online, rather than emailed to members means that past evaluation forms can be viewed, and evaluations of databases can be updated when required." – Lynette Lewis, Regional Information Services Librarian, Yarra Plenty Regional Library Service.

"Thank God for the evaluation database! It allows us to make more informed decisions about what databases we choose." – Jill Watson, Information and Corporate Reference Services Librarian, Bayside Library Service.

Future Developments - Where to now for the evaluation tool?

The Online Database Evaluation Tool currently contains scores for over 25 different databases, and due to its structure can continue to expand limitlessly. However, it is not intended that the evaluation tool remain static in its features. As the nature of online databases changes and grows, so too must the evaluation tool. Different issues arise and increase in importance when assessing databases, and these must be incorporated into the tool. A modification which has already been made is to allow for a "weighting" for directories so that they do not automatically fail evaluations because directories only have the one title included, do not provide links to journal articles, etc. Thus, the Gulliver Steering Committee has agreed to annually assess the evaluation tool and submit a list of modifications to the programmer to incorporate. As at the end of 2003, some of the features on the list are:

- Does the database conform to the American Disability Act accessibility standards?
- Can the database be viewed in languages other than English?

Future Developments - The evaluation tool conquers the world!

What about e-books?

Back in 2002 when the Online Database Evaluation Tool was born, the idea of e-books was a relatively new phenomenon, at least in Victorian public libraries. The concept was new to us, the hardware and software required to view them was new to us, and so we evaluated our very first e-book product in the same way as all the other online databases, using the same criteria and scoring methodology. The result probably was not entirely fair to the product, but at first the issue stayed in the "too hard basket".

However, before too long the world of e-books further matured – proprietary software required for different products was relinquished for more uniform standards, with the web and http becoming the predominant delivery mechanism for e-books. E-books were also becoming more common in public libraries; from a few "pilot" trials, e-books became just another format of materials offered by public libraries to their users. Clearly, Gulliver had to move with the times.

Accordingly, in July 2003 the Steering Committee made a decision to develop another evaluation tool, specifically for e-books. While using the original Excel spreadsheet as a starting point, obviously different scoring and ranking criteria will be used in the e-book evaluation tool. However, this time the tool will be written in Perl from the beginning, thus incorporating all the advantages offered by a tool in this format.

Marketing the evaluation tool

The growth of, and interest in, consortium purchasing has been enormous in the library industry in the last few years. Consortia now exist in all sectors and states in Australia, from CASL (Council of Australian State Libraries) at a national level to NSWNet (Network of NSW Public Libraries) at a state level, to name just a couple. However, the success of Gulliver has proven phenomenal. Due to the enthusiasm and energy of a group of dedicated public librarians performing on a voluntary basis, the Consortium is well organised and financially viable. This has attracted lots of attention in the library community and many approaches from other consortia that want to learn from Gulliver and/or hitch their own wagon on to Gulliver's (why reinvent the wheel, as the saying goes?). This is true in relation to the Online Database Evaluation Tool as well as other Gulliver documentation such as the Memorandum of Understanding, Business Plan and Marketing Plan. The Gulliver Steering Committee is more than willing to share its expertise and experience and believe that the Online Database Evaluation Tool has potential to be used by other consortia. The library industry has always benefited from cooperation and collaboration, and the adoption and/or elaboration of the Evaluation Tool has obvious advantages. This concept is one which the Steering Committee is more than willing to explore.

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