

## **Project Management and Cultural Change: a case study at the University of Western Australia Library**

### **Abstract**

Over the years the management of projects at the University of Western Australia Library has generally been poor. With some exceptions, projects were badly scoped, had no clear direction, would proceed in fits and starts, and some would not be completed at all. On occasions a project would get to a stage where implementation was due and there would be no resources available. On completion loose ends would be left and the transfer of the project to operational stage would be unplanned and ad hoc. Reporting was also poor so managers often had little idea of the status of a project.

In 2005 a project management method – PRINCE2 – was implemented across the library, staff were trained, and its use was mandated.

The outcome was a revelation. Business cases were written, and complex and simple projects were scoped, planned and implemented. Projects were staffed from various parts of the library, many worked together for the first time and unexpected cultural change was evident.

This cultural change did not come in isolation. A library programme - Transforming the Organisation was about to start and there was a lot of buzz in the library about terms such as: breaking down the silos, building trust, encouraging flexibility and developing leadership at all levels. So when PRINCE2 came along the cultural benefits for the organisation became immediately evident.

The staff attitudes to and understanding of the introduction of PRINCE2 project management method were measured by the use of a survey. Analysis was conducted from data from the Library Operational plan projects and from project documents.

Senior staff involved in projects benefited mostly from the introduction of PRINCE2. These staff believed that because of the introduction of PRINCE2 Library projects were better managed, that they had learned new skills and knowledge, there was improvement in how Library staff worked together, and there were positive changes in the operations and organisation of the Library.

### **1. Introduction**

There was a time when work for most library staff consisted mostly of regular processes and operations that didn't change much from one year to the next. But now, for many of us working in academic libraries, this situation has changed. Academic libraries, like other organisations are increasingly conducting projects, many involving a considerable IT component, and these are taking up a significant amount of staff and Library management time.

There is a reasonable chance that any individual library staff member, especially if he or she is a librarian with a professional or an IT qualification, will spend a good part of the working week doing project work. It is therefore important that projects

are managed efficiently, achieve their objectives, come in on time and budget and meet the needs of library clients. (Singh, p2)

At the University of Western Australia Library the PRINCE2 project management method was adopted for use on all operational plan projects and seemed to have improved the conduct and outcome of projects. There was also anecdotal evidence that it had improved the way staff work together and the operations and organisation of the Library.

This paper describes research into the adoption by University of Western Australia Library of PRINCE2 project management method and the effect this had on the organisation.

## **2. Background**

Before 2005, the quality of UWA Library project outcomes varied considerably. The Library would select projects for its annual Operational Plan, identify groups or individuals who would be responsible for the completion of these projects and leave it to them to complete the projects.

In 2002 a Project Coordinator was appointed to manage a number of projects for new digital services. By employing a full-time project coordinator, the digital projects were well reported to Library Executive and proceeded in an orderly way. However the Project Coordinator found that progress was often slow because staff were not available when required and there were no project management structures in place.

With all other projects, groups or individuals, (all with regular operational roles) were responsible for planning and implementing projects. There were no processes put in place to guide and assist them and hence these projects were usually not managed well. Roles and responsibilities were not defined, the scopes of projects were often unclear and as a consequence projects usually proceeded in fits and starts and sometimes did not even commence. Senior managers were not informed about the progress of projects because there was no regular reporting

In 2004, the Library received University funds to develop a Learning Resources System, also known as a Digital Learning Object Repository. It was clear to Library Executive that a project management method was needed to plan and manage such a complex project that also included stakeholders from other parts of the Library. This led to the decision to adopt a project management method.

In 2005 the UWA Library introduced the PRINCE2 project method for all projects in its annual Library Operational Plan. It was believed a project management method would assist the Library define projects, plan and coordinate the allocation of resources, improve scheduling of activities and make clear where responsibilities lie.

## **3. Library Strategic Theme: Transforming the Organisation**

PRINCE2 was implemented into an environment where the Library was implementing a programme of activities with the goal of changing its culture and in particular improving the way staff work together.

In 2004 the UWA Library strategic plan: 'Re-placing the Library: Strategic Plan 2005-2007' was launched after considerable staff consultation especially with

middle and senior Library staff. A key theme was Transforming the Organisation with the main objectives:

- ◇ To align organisational structures and processes with the Library's strategic priorities
- ◇ To select, develop and train staff with the skills necessary to achieve the Library's strategic priorities
- ◇ To extend the evaluation of, and improvement in, the quality of the Library's services
- ◇ To establish a culture in which excellence is recognised, valued and rewarded, and where the Library's values are reinforced and realised
- ◇ To create an environment where staff members are supportive of each other, and feel confident to take decisions and actions at the appropriate level.

To implement these objectives during the lifetime of the strategic plan a programme of seventeen activities was developed to be implemented in 2005 to 2007. Since then about half have been implemented and others are in the process of being implemented. Some of these activities are:

- ◇ Breaking down the silos: develop a program to give staff an understanding of the Library overall and how each part fits together
- ◇ Evolving for the changing environment: equip staff through a skills training program for the changes being introduced by the strategic plan.
- ◇ Flying start: Early professional development for recruited professional staff.
- ◇ The Wow factor: Develop staff recognition mechanisms.
- ◇ Taking the lead: encourage managers to lead change, be proactive and develop their teams.

There was considerable consultation about this programme and it became a talking point for many staff. Although it is not the intention of this paper to test whether this programme has influenced the acceptance of project management or contributed to its success, the confluence of these two activities needs to be kept in mind.

#### **4. Why should an academic library introduce a project management method?**

Academic libraries have managed projects without project management methods for many years with some success. Some librarians may say: "Why should library staff be expected to use a project management method? It is fine for IT staff but projects are their bread and butter and are what they do best."

Deborah A. Lauriano, Assistant Director of Information Resources at the University of California Davis, puts a compelling case for all organisations to implement project management and develop project managers. She believes 'If you take your projects seriously, then you must also take project management seriously' (Lauriano, p.13) In particular she recommends institutions train and develop project managers with project management skills, with a "broad, but not necessarily deep technical background", and with the ability to build teams. (Lauriano p.12) Once implemented formal project management can "slowly becomes part of the accepted culture of an institution." (Lauriano, p.13)

A number of large libraries have reported successful project management method implementations and I have identified three (below) where the outcomes have been very positive.

The University of Leeds Library decided to pilot the use of a project management method in 2003-2004 because the volume of projects had increased, because it recognised that managers needed to have a “better overview of the progress with ongoing interrelated projects” and because the number of collaborative projects with other sections external to the Library had increased. (Stanley, Norton and Dickson 2003, p. 71) It was clear to the authors that the use of “project management techniques within higher education libraries is not only beneficial but necessary” (Stanley, Norton and Dickson 2003, p. 82)

At the National Library Board, Singapore a project management method was introduced in 1996. All professional and executive level staff were trained and shared a “common language for seeding and managing projects with understood roles and responsibilities, processes and tools” It was felt that “it would be unthinkable chaos if the NLB were to pursue multiple innovation pathways without the consistent universal code” (Chia 2001, p. 347)

Atkins discusses in detail two projects at the University of Urbana-Champaign Library: a barcoding initiative in 1996 and high density rapid accessing project in 2004-5. She believes project management enabled the Library to achieve better results from these projects. Based on the experience of these two projects she identifies five best practices in project management to ensure success of projects. (Atkins, 2004)

In many libraries there are a growing number of projects which have a significant IT component. Kendra and Taplin cite a Standish Group survey from 2000 that reported a high (72%) failure rate in IT projects. Of those that succeeded over 90% had assigned project managers and nearly 50% used a project management method. The Standish Group concluded that the failed projects had poor collaboration and lack of trust among team members. Kendra and Taplin conclude that an organisation needs to develop a project management culture based, amongst other things, on shared cultural values, the development of a project management position and staff training in project management. (Kendra and Taplin, p. 43)

## **5. PRINCE2 introduced**

PRINCE stands for Projects IN Controlled Environments and was first established in the UK in 1989. PRINCE2 is a revised version launched in 1992. According to *Managing Successful Projects with PRINCE2*, “PRINCE2 is a de facto standard used extensively by the UK government and is widely recognised and used in the private sector, both in the UK and internationally” (Office of Government Commerce, 2005, p1)

In February 2005, the Library introduced PRINCE2 project management method for all projects approved in the annual Operational Plan. PRINCE2 was selected because the Library Project Coordinator had recently been trained in PRINCE2, it was a well known and well regarded project management method, it was used widely in Australia, and had been adopted in some departments of the University. A project was included in the annual 2005 Library Operational Plan to oversee the rollout of PRINCE2 with the Library Project Coordinator as the project manager. He produced a manual, *Project management in the UWA Library: structure and*

*guidelines manual* to guide the planning and management of projects. He also developed templates to facilitate project documentation.

A key to the success of projects is for participants to have a good understanding of the PRINCE2 roles and responsibilities. The most important roles in PRINCE2 are the roles on Project Boards. A Project Board provides advice to the Project Owner and gives direction to the project in order to remove obstacles. UWA Library Project Board positions vary slightly from formal PRINCE2 roles, but follow the same principles as follows:

- ◇ The Project Sponsor is responsible for approving project objectives, organisation and resource allocation and gives approval for the project to commence.
- ◇ The Project Owner is ultimately accountable for the success of the project and has delegated authority to make decision on issues to be resolved.
- ◇ The Project Manager delivers project outputs on time, to budget and to the required quality. The Project Manager is expert in project management but not necessarily in the field in which the project is conducted.
- ◇ The Senior Users (there can be more than one) actively represent the ultimate users of the end-product, consult with key user groups and work with the project manager to identify key users to involve in the project.
- ◇ The Senior Suppliers (there can be more than one) provide knowledge and experience of the main disciplines involved in delivering the main end-products of the project.

The PRINCE2 method is integrated into the annual Library Operational Plan process. During this process project mandates and project briefs are presented for discussion and ultimately for approval by the Library Executive. Staff and financial resources are then allocated to projects as required. From the time the planning of a project starts, progress is tracked at regular Library Executive meetings where non-routine, exceptional issues are dealt with.

UWA Library projects range from small, simple projects confined to one section, to highly complex Library-wide projects that involve two or more sections. PRINCE2 was introduced in a version suitable for small to middling size projects typically run in the Library. *Project management in the UWA Library: structure and guidelines manual* was written to reflect this. It is one of the benefits of PRINCE2 that it is easily scalable: "The key to successful use of PRINCE2 is its tailoring. Each process must be approached with the key question: 'How extensively should this process be applied to this project?'" (Office of Government Commerce, 2005, p22)

Complex projects managed by the Library and involving external University departments use a more extensive version of PRINCE2.

## **6. Staff involvement and training**

In 2005 to 2006, 37 different Library staff members or 26% of the total Library staff held Project Board roles in PRINCE2 managed projects. Library professionals held a majority of positions (24 or 65%), 7 or 19% were held by IT professionals, 2 or 5% were held by paraprofessionals and 4 or 11% were held by staff from Library Administration. Most of these Project Board members were senior staff levels 9 and above.

Whenever a new way of working is introduced into a workplace it is always important to train staff. An internally produced and delivered training session - 'Introduction to PRINCE2' was delivered to relevant staff. After a while it became clear that a more advanced training program was required and a PRINCE2 authorised trainer was contracted and trained 36 Library staff or 26% of total staff. Thirty library professionals were trained at Foundation level in a three day course and six Library IT staff members were trained at the Practitioner level in a five day course.

An attempt was made to run coffee meetings for staff involved in projects where issues could be discussed informally. However this did not prove successful and most informal discussions about project management issues usually occur via email.

## **7. Survey methodology**

A survey was developed to seek information from UWA Library staff about the introduction of PRINCE2 project management method. It was emailed to all 140 UWA Library staff in September 2006. It was planned that the survey outcomes would be a mix of quantitative and qualitative data.

The survey questions can be found in the report and discussion of results in Section 8 of this paper.

## **8. Survey results and discussion**

There were 31 respondents or 22% of all library staff. Only two responses were from those not involved in PRINCE2 projects. This means that the survey's results do not represent the views of the full staff cohort.

However a significant majority (24 staff or 77%) of the total respondents were members of Project Boards and another five held other PRINCE2 roles. Of the 37 staff who had been members of Project Boards, 65% responded to the survey. Thus the survey can be said to represent the views of Project Board members.

### **8.1. How well do you think you understood and performed the roles?**

A clear majority of all comments indicated that PRINCE2 roles were understood. Of the 39 comments, 29 (74%) expressed an understanding of the roles, four respondents indicated a lack of understanding and three were unsure.

From among these comments, there were four from Project Managers that said there was a blurring of roles with the Senior User, Senior Supplier and the Team Leader roles. One of these comments indicated the team leader role needed fleshing out to "alleviate some of the pressure on the project manager".

### **8.2. How well did you perform in the roles?**

There were 25 comments on how well respondents performed their roles. Of these, a significant majority (20 or 80%) said they performed satisfactorily or better, three were unsure and two said they didn't perform well. This is a good result for the Library and it can be expected that these respondents will have gained confidence from the experience and will be willing participants in future projects.

### **8.3. Have you developed skills and/or knowledge from your involvement in PRINCE2 projects?**

There were 29 responses to this question. A large majority (26 or 90%) responded positively. All 29 respondents gave further comments on this question. Very few

responses differentiated between knowledge and skills, and so unless otherwise stated it is assumed they could refer to either skills or knowledge or both.

The responses indicating which skills or knowledge were developed have been divided into 10 categories as shown in Table 1.

Table 1: Skills and knowledge developed

<b>Category of comment</b>	<b>Number</b>	<b>Percentage</b>
Initiating a project	12	19%
Planning a project	12	19%
Liaison / communication skills	5	8%
Time management skills	7	11%
Technical skills	4	6%
PRINCE2 method	13	21%
Project management	1	2%
General management skills	6	10%
No skills	2	3%
	62 comments	

Of the comments in Table 1, 61% relate to project management skills or knowledge which is a good sign so soon after the introduction of PRINCE2 and could indicate that PRINCE2 training was successful. However, further research would be needed to confirm this.

8.4. How do you rate the projects you have been involved in? Name the project and underline or circle the appropriate word

Respondents were asked to rate the success of the projects they had worked on or were working on. There were 62 responses. The table below indicates that 86% rated the projects as satisfactory, successful or very successful, with approximately one third rating them as very successful.

Table 2: How do you rate the success of the projects you have worked on?

<b>Rating</b>	<b>No. of responses</b>	<b>Percentage</b>
Unsuccessful	2	3%
Partly successful	7	11%
Satisfactory	10	16%
Successful	24	39%
Very successful	19	31%
Total	62	

There were 33 responses commenting on the success of projects. Most of these comments related to specific projects. Of these, three respondents commented on the importance of consultation with clients – either it worked well or was not carried out. Another six comments stated that it was too soon to indicate success or failure of projects as the projects were not completed.

8.5. How successful was PRINCE2 in achieving good outcomes for the Library?’

For this question there were 28 responses. As Table 3 shows, a large majority (27 or 96%) rated PRINCE2 as satisfactory, successful or very successful and not one respondent felt it was unsuccessful.

Table 3: How successful was PRINCE2 in achieving good outcomes for the library?

Rating	No. of responses	Percentage
Unsuccessful	0	0%
Partly successful	1	4%
Satisfactory	3	10%
Successful	17	61%
Very successful	7	25%
Total	28	

Over half of the 31 comments included positive statements about different aspects of the PRINCE2 method or project management in general. Of these, fifteen comments were about PRINCE2 processes such as the importance of planning documentation, the clear breakdown of tasks, the ability to track progress, management by exception and the benefits of highlight reports. There were three comments stating that without PRINCE2 there would have been problems implementing complex projects. Some comments highlighted benefits to the organisation such as “communication between sections is clearer than before” and there is now a “more robust, sharing community”.

There were several negative comments. Two staff members thought that it took too long to complete documentation. Another highlighted the difficulty of knowing when to use PRINCE2 or when “to just get on with it”. A third felt that young librarians may “lack authority to give opinions” when consulted for ideas and that “when strong time pressures” exists “consultation may end up being inadequate”.

8.6. Have there been any changes in the way Library staff have worked together because of the introduction of PRINCE2?’

Of the 32 respondents to this question, 23 or 71% said there were positive changes and 29% said they did not know. There were no responses saying there were negative changes. This is very a positive outcome and it is hoped will be reflected in how staff members work together outside of projects.

There were 24 comments all of which said there was a more cooperative work environment because of the introduction of PRINCE2. Twelve stated that cross division and cross section teamwork had improved. There were also five comments indicating that communication and reporting of projects had improved,

with two of these saying the common project management language provided by PRINCE2 was crucial to this.

#### 8.7. Has there been any change in the operation and organisation of the Library because of the introduction of PRINCE2?

There were 36 responses to this question. A majority of respondents (nineteen or 53%) said there were positive changes with none saying there were negative changes. However two (6%) respondents said there were both negative and positive changes, two (6%) said there was no change and thirteen (36%) said they did not know. Although a majority say there have been positive changes there was a high percentage that expressed no opinion. Further investigation will be needed to determine if the respondents in this group make up their minds one way or the other.

Three of the 21 comments were positive about the clearer communication about projects and another three commented that there was greater camaraderie among staff and staff at all levels working together for the same goal. A few other comments highlighted the benefits gained when projects do not drag on forever, the ease of working on projects when all understand the process and the benefits of removing uncertainty because of the introduction of a common method.

One staff member commented negatively on the increasing amounts of time allocated for project work without lessening the time for operational work, but another commented that time to do project work is now being allocated with a corresponding reduction in operational work.

#### 8.8. Can you suggest any improvements in the way the Library manages projects?

Out of the 21 responses to this question, six were about the allocation of staff to projects, including allowing staff more chance to get involved in projects and ensuring sections are not left short of staff due to projects. There were four suggestions on how to improve communication including the use collaborative technology. Three comments requested more planning time for projects rather than rushing this important work.

#### 8.9. Other comments

The final question requesting 'any other comments', was answered by twelve respondents or 38% of all respondents. Four respondents made positive comment about PRINCE2 and how it gave greater control of projects. One response commented that in some instances early planning documentation took too much time with many iterations of documentation.

Four responses stated that small projects confined to one section should not be using PRINCE2 but be part of normal operations. There were also two comments about staffing of projects stating that staff members with good project management skills are in danger of being overloaded with work and that "PRINCE2 improves the working life of staff".

### **9. How successful were the Library Operational Plan projects?**

In 2005 work commenced on an unprecedented sixteen Operational Plan projects with major IT components which were due for completion by the end of the year. All of these used the PRINCE2 project management method. Only six were fully completed on time. However, another five were largely completed and achieved

their major objectives within time and budget. In another two, planning was completed and then the projects re-scheduled until the next operational plan cycle due to a lack of resources. Of the three remaining projects, two were ended after a re-evaluation of their objectives found the expected benefits would not be achieved and one was troubled by poor planning and has since been resumed.

Most of the completed or partially completed projects were highly complex, required staff from a number of sections and since implementation have significantly advanced online services at UWA. They also required staff with a high level of IT and data management skills. Based on the experience of previous years, it is likely this level of achievement would not have been possible without the use of a project management method and reflects the survey results that rated the majority of the projects successful or very successful.

According to PRINCE2, Project Boards are responsible for writing Lessons Learned reports on the completion of projects. At UWA the Lessons Learned reports include sections on: what worked well and what did not work well, abnormal events causing deviations, analysis of project issues and recommendations. These reports are a valuable source of information on the conduct and outcome of projects. They need to be reviewed individually and collectively to gain an insight into how to improve the management of projects.

Five Lessons Learned reports from the 2005 operational plan were analysed to gain an understanding of how well these projects were conducted. They were all completed in 2005 and 2006. It is difficult to describe these projects without going into a level of detail which is beyond the scope of this paper, but it is hoped the reader can gain sufficient understanding. The Lessons Learned reports show these five projects varied in size, complexity and breadth of collaboration as follows:

- System to manage access to online resources sponsored by the library. This project as an original solution to a complex problem and required a great deal of consultation with staff in the Libraries.
- Migration of Course Materials Online and Exam Papers Online into Harvest Road Hive. This project was highly complex and required the extensive allocation of staff resources and a Project Manager who could quickly come to terms with new and developing software.
- Federated Searching (Metalib) project was highly complex, required a high level of technical skills and involved large numbers of staff from a number of sections of the Library.
- Implementation of the Z39.50 function in Library Management System was a small project that involved staff from two sections.
- E-commerce, a product for patrons to make payments online. This project was abandoned at the end of the planning stage when it could not meet its objectives.

These Lessons Learned reports show the successful management of all the five projects and a successful outcome for four out of the five projects. Four of these projects were finished on time or nearly so, were within budget, met the requirements of stakeholders and achieved the benefits as described in the Project Brief. Importantly, the ongoing staff resources and organisational structures were put in place at the end of the projects. The report for the

abandoned project stated why it did not meet its objectives and business case and so was ended according to the PRINCE2 method.

Many project management issues were highlighted and some improvements suggested. Some of the improvements recommended are:

- Sufficient time should be allocated to Project Managers
- Project Board members need to be inducted into their project roles
- Use a more sophisticated means of tracking project activities
- Scoping of projects is crucial and needs time
- A means needs to be found to track all projects in order to better commit limited resources
- Consider ways to improve how staff are allocated to projects to minimise the impact on operational requirements and ensure a wide range of staff are involved
- Project Boards should ensure clients and stakeholders are directly consulted where appropriate

## **10. Conclusion**

How well does UWA Library manage its projects nearly two years after the introduction of PRINCE2?

This paper shows that the adoption of PRINCE2 project management method has improved the conduct and outcome UWA Library projects. Most of the survey outcomes are very positive and encouraging. They indicate that with the introduction of a project management method like PRINCE2 substantial improvements can be made in a very short time. In summary the survey results show that:

- ◇ PRINCE2 roles and responsibilities are well understood by members of the Project Boards
- ◇ There is a more cooperative and collaborative work environment because of the introduction of a project management method
- ◇ PRINCE2 has improved project reporting and increased the level of understanding of projects
- ◇ It is not clear yet if PRINCE2 has had a positive affect on the operations or organisation of the Library

Analysis of the 2005 Library Operational Plan projects and the Lessons Learned reports support the positive survey results. However the significant number of projects not completed on time suggests improvements are required, especially in the planning of the overall programme of projects, the development of timelines and the allocation of resources. In other words there is still room for improvement and it is now up to the Library to embrace these improvements.

To return to the words of Deborah Lauriano: "If you take your projects seriously, then you should take project management seriously". Taking it seriously means organisations need to adopt a project management method, train staff, appoint and develop project managers and build project management into the organisation.

(Lauriano, p13) If you have balked at this in the past, the experience of UWA Library should give you courage to take that first step.

## 11. References

Atkins, Stephanie, 2004. 'Projecting success: effective project management in academic libraries', IATUL Proceedings Vol. 14 (New Series) Library Management in Changing Environment. Retrieved 10 October, 2006 from

<http://www.iatul.org/conference/proceedings/vol14/fulltexts/Stephanie%20Atkins.pdf>

Chia, Christopher, 2001. 'Transformation of libraries in Singapore', *Library Review*, [online], vol. 50, no. 7/8. Available from: <http://www.ermerald-library.com/ft>

Englund, Randall L and Graham, Robert J, 1999. 'From experience: linking projects to strategy', *Journal of Product Innovation Management*, [online], vol. 16, issue 1, pp. 52-64. Available from: Science Direct

Fletcher, Janet and Peasley, Jennifer, 2005, 'Smashing the silos: a new framework for information services', Online 2005 Conference. Retrieved 12<sup>th</sup> September, 2006 from: Macquarie University Library Conferences and Conference Papers <http://www.lib.mq.edu.au/about/conferences/index.html>

Kendra, Korin and Taplin, Laura J, 2004. 'Project success: a cultural framework', *Project Management Journal*, vol 35, no. 1, pp. 30-45

Lauriano, Deborah A, 2000. 'Take project management seriously!', *EDUCAUSE Review*, [online], May/June, pp. 12-13. Retrieved 12<sup>th</sup> September, 2006 from <http://www.educause.edu/ir/library/pdf/ERM0036.pdf>.

Office of Government Commerce. 2005, *Managing Successful Projects with PRINCE2*, 4<sup>th</sup> edn, TSO, London

*Re-placing the Library: Strategic Plan 2005-2007*, 2005. The Library University of Western Australia, Perth. Retrieved 12<sup>th</sup> September, 2006 from [http://www.library.uwa.edu.au/data/assets/pdf\\_file/3039/library\\_strategic\\_plan05-07.pdf](http://www.library.uwa.edu.au/data/assets/pdf_file/3039/library_strategic_plan05-07.pdf)

Singh, Manjeet. (undated) 'ProjectMinds' Quick Guide to Project Management'. Retrieved 7<sup>th</sup> November, 2006 from <http://www.projectminds.com/Ebook.html>

Stanley, Tracey, Norton, Frances and Dickson, Barry, 2003. 'Library project management in a collaborative web-based working environment', *The New Review of Academic Librarianship*, [online], vol. 9, no. 1, pp. 70-83. Available from: Taylor and Francis