

RE-ENGINEERING LIBRARY SERVICES: HUMAN RESOURCE MANAGEMENT

The JULIA-project at the Technical Knowledge Center & Library of Denmark (DTV)

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Based on a Workshop presentation at the 22nd UKSG Annual Conference and 4th European Serials Conference, Manchester, April 1999

The experiences and lessons learned during a process of re-engineering an academic library with special emphasis on creating an environment of self supporting continuous distance learning and in-house training of library staff in order to prepare for the hybrid or electronic library.

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The Technical Knowledge Center & Library of Denmark (DTV) is the library of the Technical University of Denmark (DTU), as well as the national centre for scientific technical information in Denmark.

DTV has always aimed at being at the forefront in implementing technology in library and information services.

Until the summer of 1997, DTV operated under a strategic plan with the primary objective of implementing the electronic library at a steady pace, as well as to be active in the development of the primary university activities : developing personal information services for researchers and research groups by implementing new technology in these services, implementing IT in teaching and learning processes and supporting university knowledge management, i.e. operating the university CWIS, etc.

Developing and implementing services based on electronic information and being a partner in developing new teaching and learning environments requires that a whole new set of qualifications have to be available in the library. Besides operating the 'old' paper based library, new services have to be invented and available technological solutions have to be implemented and applied in the daily operations.

One of the key factors in inventing and operating new services is the acquisition of new staff competence. The rapid changing environment, new technological tools and increasing customer expectations calls for new attitudes and new approaches to library and information services.

With the funding available it is obvious that an institution-wide training programme cannot be implemented by using traditional training methods. It was simply impossible to devote the staff resources needed to let the staff attend courses externally. Besides

that, no training or education provider can or could offer the training needed. Thus, other measures had to be provided in order to ensure that the necessary skills and competence would be in place as soon as possible.

The JULIA-project (human resources development in the transition towards the hybrid library) was scheduled to last from July 1st 1997 until June 30th 1998. The primary objective of the project was to ensure that the transition to the hybrid library was a direct process by which the design of new jobs, new work processes, qualifications and on-the-job training were well considered, thereby curbing feelings of insecurity, naturally felt with regard to drastic changes in the work environment.

Furthermore, the objective was to utilise the new technological possibilities to create more comprehensive jobs for employees and especially to explore the possibilities of creating secure jobs for non-library educated staff.

The vicious circle of zero-growth funding, price increases on databases and journals, cancellations, price increases, etc. has meant a 40% reduction of journal subscriptions from 1990 to 1997 and the prospects for 1998 would be another 700 cancellations. This brought the concept of a comprehensive academic library to mind. The library management raised this in discussion with the library board, and there was uniform agreement that the trend of annual cancellations could not be continued. Something radical had to be done in order to stop the negative development and to pave the way more aggressively towards the electronic, or more precisely, the hybrid library.

From the informal discussions between the university management and the library management, it was obvious that no additional funding for 1998 was possible and, on the basis of these facts, the library management drew up a plan which was agreed upon by the library board. The plan had four main actions:

1. staff reductions - 13 positions were to be made redundant - this would bring yearly savings of £ 275,000;
2. additional funds for the purchasing of information - £ 200,000 - i.e. maintaining subscriptions for 1999 and buying electronic licences and technology for the development of electronic information resources;

3. minimising the handling of printed material wherever possible;
4. investment in continuous education, new qualifications and on-the-job training.

The plan was approved by the university board in September. Staff reductions took effect from November 1st 1997 - which meant that the 13 jobs were made redundant by May 1st 1998.

At this stage it is important to stress that the staff has to understand that the library is in competition, that the future of the organisation – and, therefore, the job – is at risk, and that every individual staff member has an interest in changing the way the library operates and developing the services needed for securing the future of the library. This is a very, very important prerequisite for implementing more than incremental changes.

The initial implementation of the plan was accompanied by changes in the organisation of the library. It is rather obvious that a staff reduction of approximately 15% has to result in rearrangements in the division of labour between departments and the reallocation of work processes and staff. The key features of this organisational change are flattening the organisation, further delegation of responsibility and decision-making to staff.

Project activities

The re-engineering plan and the other changes caused a lot of turbulence during the period of September 1997 until the 13 staff members had left the library by the end of April 1998, although the majority left earlier because of the efforts made by the replacement agency involved.

However, the project group continued its activities, amongst which the most important was to gather information on current work processes in the 'paper-based' library, the qualifications involved, as well as outlining the work processes in the 'electronic' library and the qualifications required. On the basis of these tasks the project group drew up a large number of topics for in-house training.

One of the problems encountered was that it was rather difficult to find external sources for educational activities, work processes and qualifications related to the electronic library. Luckily DTV has long standing experience in

offering courses in IT, Internet, WWW-design etc. Thus in-house teaching resources were engaged, in order to design and run the in-house training activities.

From November 1997 to date, a large number of courses have been held, most of which have been rather short two-hour sessions, a number of them repeated and tailored to the needs of different categories of staff.

Another major feature of the project was the WWW-environment for information on the project, course and training offers, exchange of ideas and initiatives. A homepage was established on our intranet with links to interesting projects, E- and D-lib for instance. All project group minutes, newsletters, etc. are displayed. Initiatives as to new courses, projects, etc. are communicated.

The homepage, with its electronic conferences, has in the course of the project developed into a central site for exchange and test of ideas and thus contributed to the overall training of the staff in handling electronic communication facilities.

Establishing facilities for continuous education, training and communication

One of the features of the project was to experiment with distance work and distance education. As a consequence of the re-engineering plan it was decided to lease 70 PCs and install them in the homes of every single staff member during February 1998. The PCs are networked to the library and all telecommunication expenses are paid for by the library.

This action has proved to be a very successful. It has boosted the activities of the staff, keeping them updated with developments on the net, enabled participation in net-based distance learning and has contributed significantly to a more optimistic view on the individual's future in the organisation. At present 45 of the 70 staff members are engaged in obtaining an approved PC-user-education by means of distance learning - most of these 45 are the non-library educated staff.

Installation of the PCs has also encouraged the staff to make use of the different electronic conferences installed by the library, where for instance they use colleagues for advice, exchange and test of new ideas.

As a matter of fact, a whole new attitude towards the responsibility of keeping

qualifications up-to-date has developed. Earlier, one could frequently meet the opinion that the responsibility for the staff's qualifications was solely that of the management. Now the majority of the staff realise that, by being given the facilities for continuous education, the responsibility is at least a shared one.

What has been accomplished is a self-supporting more or less autonomous training network, with activities planned and performed by the staff without much interference from the management.

Job design in the hybrid library

Another of the major objectives for the JULIA-project was to design the jobs in the 'electronic' library. The basic assumption was that the work processes in the traditional 'paper-based' library were well known and well described and that it would be an if not easy, then at least do-able task to describe the work processes in the 'electronic' library. The process of the project has proved that this was not the case.

What we have learnt is that the transition towards the hybrid library does not take place in a vacuum; the transition cannot be seen as an experiment in a laboratory, where one can control all environmental conditions. On the contrary, external forces have every chance to alter the plans and prospects of the project and they actually did.

One of the most important problems to overcome in this transition is the very predominant and sharp division of labour between the different categories of staff, especially between subject specialists, generalists (librarians) and clerical staff.

It has for years, and increasingly so, been the strategy at DTV to generate overlaps between different categories of staff, in order to reduce the expense of higher paid staff and create more comprehensive and challenging jobs for the less formally educated.

The fact that very few libraries to date have taken more radical steps towards the 'electronic' library, plus the fact that the available technologies develop at a rapid pace, has made it rather clear that the 'new' library world will do best by saying farewell to the well known, very specific and thus static job descriptions and

instead provide each staff member with the necessary means to continuously create/up-date their own jobs.

This can be done by implementing a combination of different 'tools'. The most important of these are:

1. inducing a certain pressure or competition as to the necessity of being up-to-date, curious and responsible, in order to be valuable for the organisation;
2. organising the institution in such a way that the individual staff have the competence to make decisions on their own, take individual and group initiatives without having to pass several levels of decision makers, thereby allowing staff to make mistakes and learn from experience;
3. facilitate self-organised or group-organised education and development of competence 'on demand', for instance by establishing the technological conditions for distance learning and communication.

In short, instead of creating the job description, the important thing is to provide the framework for the individual staff member to create and change the job on a continuing basis.

External evaluation

The external evaluation of the project was handled by an external consultancy company in the form of a focus group meeting. The main outcome of this was that they consider DTV a good place to work, with challenging and varying tasks allowing them to take advantage of more of their capabilities on the job. It is a common view that the recent changes have led to a greater delegation of responsibilities and they experience better opportunities for making decisions by themselves,

that problems with more than one solution arise more frequently, and that they experience more involvement in the development of library services and how IT can support this development.

It was expected that the consequences of the re-engineering plan, the staff reductions, etc. would cause defensive attitudes towards the changes and the implementation of new technologies in library services. The evaluation reports that the staff do not feel defensive; on the contrary, they feel prompted to be in the forefront and to explore the opportunities IT development offers and recognise that part of the responsibility is their own as individuals.

The outcome - lessons learned

It is, given the concurrent developments and changes in the course of the project period, very difficult in a scientific way to isolate the specific outcomes of the JULIA-project.

However, the most important lesson in a project which has the human resource side as its main focus is that it is possible to tackle rather dramatic change in an organisation without having to cope with more or less explicit reluctance or resistance from the staff, provided the management is committed to invest in and provide an appropriate environment for personal growth responsiveness to initiatives and ideas, and thus making it possible to envisage an attractive future based on one's own active contribution to.

The outcomes have been new competence, new qualifications, new attitudes and a promising potential for further developments to the benefit of users and of course the organisation and the university.