ACADEMIC LIBRARIES AS LEARNING ORGANIZATIONS

A review of the literature

Master International Information Studies

Independent Study 1

BP100

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May 2004

1. The core concepts of the learning organization applied to academic libraries

I. Introduction

Peter Senge's seminal book "The fifth discipline: the art and practice of the learning organization" was published in 1990. It "*sold more than 650,000 copies, spawned a sequel "fieldbook" and gave birth to a worldwide movement*" (Webber, 1999).

The author himself admitted drawing on many influences, namely on the earlier works of Donald Schön, Chris Argyris and Arie de Geus and on the theories of the Center for Organizational Learning at MIT. Senge "*resurrected their ideas*" and popularized the learning organization as a completely new approach to solving problems by seeing the larger picture, i.e. by taking a systemic view (Dworaczyk, 2002, 32). The concepts that make up the theory are "*an eclectic combination of elements from the quality movement, matrix management, systems theory, and organizational development and culture*" but Senge "*combined them into a holistic theory of organizational effectiveness*" that "*may offer a viable framework to internalize change*" (Worrell, 1995, 356).

Librarians are especially sensitive to the issues related to the management of change: if "*the only certainty is change…this is especially so in the library and information services sector*" (Smith, 2003, 443).

It is absolutely plausible then that academic libraries should strive to become learning organizations in order to meet customer expectations, to take advantage of technological innovations and to keep up with the increasing pace of change.

> *"To enhance effectiveness, achieve excellence, and ensure survival research library leaders need, in full collaboration with staff members, to develop conscious, explicit processes for organizational change." (Lee, 1993, 129)*

The aim of this literature review is to explore the theme of learning organizations in relation to academic libraries. Which are the concepts inherent in Senge's theory?

Why should they specially apply to academic libraries? Are there any case studies in literature? Is there some aspect which still needs to be explored in view of practical implementations?

It is not the intent of this inquiry to summarize the findings of the countless earlier research efforts in the broader domain of learning organizations, most of which are predominantly speculative. The focus is on practical considerations and experimentations in academic libraries. Theoretical works are considered inasmuch as they shed light on the prerequisites for libraries to become learning organizations.

II. Definitions

> *"Learning organizations are organizations where people continually expand their capacity to create results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together." (Senge, 1990, 2)*

This is the celebrated definition which opens "The fifth discipline" and the starting point of this review. A few other definitions may be useful, as they add more details:

> *"A learning company is an organization that facilitates the learning of all its members and continually transforms itself." (Pedler, M., Burgoyne, J. & Boydell, 1991, 1)*

> *"an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights." (Garvin, 1993, 78)*

> *"The learning organization is one that learns continuously and transforms itself. Learning takes place in individuals, teams, the organization, and even the communities with which the organization interacts. Learning is continuous, results in changes in knowledge, beliefs, and behaviours. Learning also enhances organizational capacity for innovation and growth. The learning organization has embedded*

systems to capture and share learning." (Watkins & Marsick, 1993, 8-9)

If we stick to Senge's theory, we define a learning organization in terms of five disciplines (see table below) which need to be practised within the organization itself. The metaphor is borrowed from system dynamics – which looks at structure in terms of feedback interactions within a system. In this view the fifth discipline, which presides over the others, is systems thinking.

Three years after the publication of Senge's best seller, Shelley Phipps, a librarian, reviewed his theories by applying them to a library environment. It is worthwhile examining this comprehensive work, which puts forward a sort of cultural realignment within libraries:

> *"Let's give up the goal of getting information to people and let's assume the goal of creating a learning organization for people who care that other people have information they need and want. This leaves great room for new and creative ways of thinking what librarianship is all about and transforming libraries to serve the ultimate cause of learning." (Phipps, 1993, 37)*

III. The five disciplines

CHARACTERISTICS OF THE LEARNING ORGANIZATION DISCIPLINES

DISCIPLINES	CHARACTERISTICS
Systems thinking	The process of seeing the causal relationships between independent actions in an organization
Personal mastery	The continual development of individual self-fulfillment and commitment to one's aspirations
Shared vision	The shared pictures of an organization that fosters commitment and buy-in
Team learning	The practice of teams gaining new insights through dialogue
Mental models	The deeply ingrained assumptions that influence how individuals understand the world

Source: Senge, 1990

Here is an overview of Senge's core statements as seen through the eyes of librarians. Some quotations from Senge himself are interspersed.

SYSTEMS THINKING

We are taught as children to break up complex problems into small parts in order to find viable solutions. If we promote learning organizations we must be able to see wholes and not smaller parts, as cause and effect in complex systems are not usually closely related in time and in space (Worrell, 1995; Riggs, 1997b; Froman, 1999; Baughman & Hubbard, 2001; Dworaczyk, 2002).

> *"This failure at systems thinking, he [i.e. Senge] suggests, results in the tendencies to leaders to look for familiar solutions which offer short-term benefits but do not address the root problems, and to implement solutions which often merely shift problems from one part of the system to another." (Worrell, 1995, 352)*

STRIVING FOR PERSONAL MASTERY

Every individual within the organization has to expand his/her own personal capacity to pursue the aims he deems important. The organizational environment encourages and supports personal development (Baughman & Hubbard, 2001).

> *"Continually balancing the creative tension between our vision and our current reality is vital to practicing personal mastery …" (Phipps, 1993, 29)*

DEVELOPING SHARED VISION

This is a key point, because it has to do with organizational culture and a new sense of leadership (Worrell, 1995; Riggs, 1997b; Jenkins, 2000; Baughman & Hubbard, 2001) that imply "*connecting and building the vision through sharing, dialogue, listening and helping others to co-create the vision*" (Senge, 1990, 32).

> *""Formal" and "grudging" compliance to the "leader's vision" are seen as contrary to what is really desired: enrolment and commitment." (Phipps, 1993, 32)*

SUPPORTING TEAM LEARNING:

Individual learning is the prerequisite for organizational learning, even though the latter does not necessarily follow from the former (Worrell, 1995; Rowley, 1997; Goldberg, 2000).

> *"Too often we ask them [i.e. teams] to look at the same tired solutions, to pick one and recommend how to implement it. We don't challenge them to think of the unthinkable, to step out of the problem and apply processes that open up imagination." (Phipps, 1993, 33)*

A true learning organization has to break the defensive behaviours which as a rule cover up the really thorny issues (Froman, 1999) and enhance collaboration and facilitation among members (Baughman & Hubbard, 2001).

> *"Genuine learning is inhibited by both individual defensive reasoning and organizational defensive routines." (Argyris, 1994, 80)*

A creative approach to problem solving implies risk taking and forgiving the mistakes that inevitably ensue by not creating a threatening atmosphere (Phipps, 1993, 33).

MANAGING MENTAL MODELS

Our mental models "*determine not only how we make sense of the world, but how we take action*" (Senge, 1990, 175). They consequently influence our behaviours, be it consciously or unconsciously (Baughman & Hubbard, 2001). They can lead to

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inertia or, on the contrary, encourage action. It is necessary to gain awareness of the differences between espoused theories and theories in use (Phipps, 1993, 31).

IV. The laws of systems thinking

- ***Today's problems come from yesterday's solutions***

Librarians all over the world have been convincing their administrators to devote more and more money to the acquisition of books and serials. It certainly seemed the right thing to do, but currently librarians strive to keep up and find room for their collections as costs are escalating (Phipps, 1993, 26).

- ***The harder you push the harder the system pushes you back***

The "publish or perish" environment has been triggered off by librarians themselves who have kept spending more and more money on serials which were considered to be necessary tools for researchers. Now academic librarians have to buy back at a soaring price the research that has been produced within their institutions while budgets keep shrinking (Phipps, 1993, 26).

- ***Behavior grows better before it grows worse***

Both librarians and publishers have been creating complicated systems to store knowledge and preserve it. The real goal instead should have been to put in place user-friendly systems that could be directly accessed with no intermediation by the librarian. Now we have to provide bibliographic instruction programs (Phipps, 1993, 26-27).

- ***The cure can be worse than the disease***

> *"Short-term improvements that lead to long-term dependencies are not only bad solutions but they can support continued dysfunctional behaviour."* (Phipps, 1993, 27)

The above statement epitomizes the present predicament with vendors, who have been allowed to design library systems software with no active cooperation from librarians – and now it is too late for librarians to impose their views.

- ***Faster is slower***

> *"Incisive action (should) not be confused with incessant activity."* (Senge, 1990, 304)

People (and librarians) cannot be made to move any faster than possible. What they need is support and encouragement to pursue systems thinking (Phipps, 1993, 27).

- ***Cause and effect are not closely related in time and space***

> *"We look for the cause of a problem in the area in which it occurs and within a time span associated with when it seemed to occur. And we apply "solutions" that merely change the symptoms."* (Phipps, 1993, 28)

We often take a personal view of the interactions within an organization and we are not able to spot the real problems, unless we keep focussed on our own learning.

> *"Systems thinking principles also suggest that cause and effect in complex systems are not usually closely related in time and in space, and solutions which produce the most enduring results typically are the least obvious and involve small, key changes."* (Worrell, 1995, 352)

- ***Small changes can produce big results – but the areas of highest leverage are often the least obvious***

> *"In times of funding shortages, investing in staff learning and training may not be seen as the most obvious way to get done more for less." (Phipps, 1993, 28)*

Such investments are comparatively low-cost but turn out to be highly profitable as they build up intrinsic motivation and a sense of identity and responsibility in librarians.

- ### Dividing an elephant in half does not produce two small elephants

> *"Living systems have integrity. Their character depends on the whole." (Phipps, 1993, 28-29)*

Rigid hierarchical organizations prevent their staff from seeing the whole and having a systems view (Worrell, 1995; Fowler, 1997; Froman, 1999; Dworaczyk, 2002). Cooperation with the parent organization also needs to be enhanced (Riggs, 1997b; Shaughnessy, 1996; Froman, 1999).

- ### There is no blame

> *"We and the cause of our problems are part of a single system". … In Systems Thinking, we must see the forest and the trees. Systems Thinking combines with the other four disciplines to move the organization to a state of generative learning…" (Senge, 1990, 29)*

Outside circumstances are not to blame. Librarians must take responsibility for their own actions inasmuch as

> *"… the application of systems thinking enables people to see how the organization really works; to form a plan; and to work openly together, in teams, to achieve that plan." (Worrell, 1995, 352)*

V. Systems archetypes

> *"Systems archetypes teach managers to perceive organizational behavior from a systems perspective, which helps the organization to free itself from previously unseen forces, to work with those forces, and to change them. Systems archetypes are built upon the systems dynamics concepts of reinforcing feedback loops, balancing feedback loops and delays."* (Worrell, 1995, 352)

- ### *Limits to growth*

A reinforcing process, such as providing access to more and more databases, may bring about growingly unmet demands for periodicals and therefore dissatisfaction in end-users who may even decide not to use databases at all. In such a case,

> *"Limits to growth" can be overcome by the removal of the limiting factor (lack of periodical availability), in this case by subscribing to more of the periodicals indexed or providing a timely document delivery alternative."* (Worrell, 1995, 352)

- ### *Shifting the burden*

> *"… as a response to an overtaxed reference desk service, academic libraries assign extra student staffing. This provides temporary relief to the overburdened staff, but eventually the students' lack of expertise, the time and staff resources required to train the students, and the high turnover of student assistants may present major problems."* (Worrell, 1995, 352)

Often librarians try to find a "quick fix" and bypass the root problem. Fundamental solutions (i.e. not applying the "shifting the burden" archetype) require instead long-term planning (Worrell, 1995; Baughman & Hubbard, 2001; Dworaczyk, 2002).

VI. Learning

To define learning organizations it is essential to delve into the concept of organizational learning. Let us state first what kind of learning is "wrong":

> *"We argue that indiscriminate knowledge creation will not lead to organisational learning, and that knowledge is not something that can be viewed as a neutral tool in the learning process." (Rowley, 2000, 8)*

Then what kind of learning ought to take place within learning organizations? Let us go back to the sources. Organizational learning is made up of three overlapping steps, going from a cognitive stage through a behavioural stage and finally to performance improvement; people start thinking then behaving differently and finally their efforts are measurable in terms of better results (Garvin, 1993, 90).

At the beginning, learning can be single-loop (a problem is detected and solved); the next step is double-loop (the reasons and motives behind the phenomena are investigated and organizational norms may be restructured); finally deutero learning is the process by which an organization learns how to learn (Argyris, 1977; Argyris & Schön, 1978; Senge, 1990).

Error is then every attitude or behaviour that hinders learning, such as defensive routines (Senge, 1990; Argyris, 1994). Genuine learning is generative and not merely adaptive; critical thinking brings about a constant review of organizational values and norms. Flexibility is evidence-based, the status quo can be challenged and organizational policies can be modified in the face of changing conditions. There are no prescriptive models of organizational learning, but it revolves around "*systematic problem solving, experimentation with new approaches, learning from best practices, and transferring knowledge efficiently throughout the organization*" (Smith, 2004, 65).

This is certainly a crucial point and no wonder a whole publication has been recently devoted to "*work-based learning*" in order to "*develop library staff*" (Allan & Moran, 2003). It is a "how to" approach and a whole range of drills and activities are presented – a little simplistically at times, but some ideas (in the form of examples) may be transferable to other contexts.

VII. Management of change

> *"The concept of the academic library as a learning organization is not new; library staff have depended on one another and the collective learning environment of the library and its closely associated constituencies for many years. … And, quite naturally, the dramatic acceleration of change is making it necessary for libraries to perceive themselves as an oasis for continuous learning." (Riggs, 1997a)*

In the past academic libraries were used to a stable environment and to "*captive clients*" (i.e. faculty and students) (Dworaczyk, quoting Goble & Brown, 2002, 36). In the present ever changing environment librarians need to apply reflective practice to problem solving (Dixon, 2000).

> *"The literature on change within organizations is filled with myriad terms that attempt to capture the various dimensions of change. Planned organizational change, total quality management, continuous quality improvement, re-engineering, learning organizations, chaos theory, change management and diffusion of innovations are the most common theories and organizing frameworks described in the change literature." (Dworaczyk, 2002, 28)*

Actually the concept of the learning organization is a response to "*the need for organizations to survive in a changing environment*" (Rowley, 1997, 91).

The pace of change is accelerated in the library and information services sector, and brings about very concrete effects on library staffs and organizations (Shaughnessy, 1996, 252) owing to the "*heightened emphasis given to information access and knowledge management*" (Smith, 2003, 443), to "*a great deal of innovation in new technology*" (Fowler, 1997, 1), and to "*a continuous feedback from our customers about their information needs*" (Bender, 1997, 22). In other words,

> *"Continuous change and improvement are directly linked to the tension between our vision of what needs to be accomplished, and the current reality as we attempt to create that vision". (Bender, 1997, 22)*

VIII.　Leadership and empowerment

Academic libraries "*have been highly centralized and hierarchical in character, following the classical and scientific theories of management*" (Fowler, 1997, 12). Their organizational design has been rigid in terms of division of labour and areas of responsibilities (Riggs, 1997b).

All scholars agree that "*transformation in libraries calls for a transformation in leadership*" as libraries "*need leaders who design and build new paradigms, the libraries without walls*" and who "*create the learning processes*" while being lifelong learners themselves (Phipps, 1993, 20)*.*

In order to become learning organizations and to create a climate conducive to learning academic libraries need flatter organizational structures (Penniman, 2000), where people "*are encouraged to work across boundaries*" (Riggs, 1997b, 4), "*decision making is decentralized*", and the leader is "*a teacher, steward and designer of learning processes*" (Worrell, 1995, 354). Alas,

> *"Leaders often apply band-aid fixes, such as teams, without implementing a change in their fundamental beliefs and organizational design." (James, 2003, 46)*

Conversely team structures need to be empowered; they do not have to be superimposed onto a strictly hierarchical organization, otherwise they cannot be effective. Decisions have to be made at the lowest possible level by those who are directly involved (Worrell,1995; Bender, 1997; Riggs, 1997b; Dworaczyk, 2002).

The issues related to leadership and empowerment remain highly controversial, because it is not easy to "*disperse power so self-discipline can largely replace imposed discipline*" (O'Brien in Senge et al., 1994, 14). Problems may arise on both sides:

> *"Some managers may initially be reluctant to yield control, just as some employees may have difficulty in working more independently." (Worrell, 1995, 356)*

Negotiation and team and peer agreement are necessary prerequisites. Most of all,

> *"Creating a learning organization requires a community of learners … overriding the current model that rewards cautious, skilled incompetence and discourages learning and making mistakes … the leaders are … supposed to be out there making mistakes faster than everybody else." (Kim, 1993, 36-37)*

Much of the learning organization revolves around leadership and empowerment. It is noteworthy that a whole publication has been recently devoted to "*empowering your library*" (Christopher, 2003); this work provides valuable insight into motivation, communication, shared vision, interpersonal and team skills, emotional intelligence and empowered library leadership, thus illustrating the interrelations between all the parties involved. The starting point is that "*the most underutilized resource in many libraries is staff*" and that "*empowerment is allowing individuals and groups to fully realize their potential*". It is vital nowadays to "*maximize final resources*" by "*better deploy[ing] our library's human resources*" (Christopher, 2003, 1)

IX. Libraries and parent organizations

> *""This is an organisation of learning, but is it a learning organisation?" (University Staff Development Officer)."*
> *(Edwards & Walton, 2000)*

The academic climate is made up of "*defensive patterns (e.g. isolation and polarized thinking) and other forms of self-protective behaviours*". Universities are mainly based on "*fragmentation*" which is a consequence of "*specialization*" and hinders "*attempts to create a shared vision*" (Froman, 1999, 186-187). This is the reason why

> *"The libraries of colleges and universities are changing faster than their respective parent institutions." (Riggs, 1997b, 3)*

Academic libraries usually have "*a reasonable degree of autonomy*" and therefore can implement a learning organization program "*without [it] being part of a larger institutional effort*" (Worrell, 1995, 356). The organizational trend within Universities is toward "*boundarylessness*" (Froman, quoting Garvin, 1999, 187), but faculty seems less quick to respond than libraries (Bender, 1997, 22).

> *"Questions relating to roles, especially the roles of academic staff, inevitably include issues relating to governance." (Shaughnessy, 1996, 255)*

Governance, the roles of the staff and organization charts are very much connected with local practices, common feelings and labour contracts. This is the reason why organizational paradigms need to be studied in context. The following section provides a selection of examples of academic libraries as learning organizations.

2. Beyond the theory: experiences and suggestions for further research

I. Introduction

"Beyond high philosophy and grand themes lie the gritty details of practice." (Garvin, 1993, 78)

Diane Worrell closed her paper on the application of learning organizations principles to academic libraries by stating that "*Future research is needed in building models and testing the validity of the theory*" (Worrell, 1995, 356). In fact the theory has been thoroughly dissected and the result is that implementing learning organizations can provide a viable solution to the problems that academic libraries are currently facing in managing change. This is testified by the number of scholarly papers that unanimously consider Senge's principles relevant to the library environment.

The works dealing with academic libraries as learning organizations are mainly basic and descriptive researches, but some are case studies relying on a qualitative/quantitative methodology.

"Exotic" (the author being Italian) experiences are listed first in chronological order, then "domestic", i.e. Italian experiences, are listed with the same order.

II. University of Arizona Libraries

The restructuring of the University of Arizona libraries has been receiving great attention by scholars over time and a longitudinal view of the process can be gathered. First the theoretical foundations were laid (Phipps, 1993), then the staff were interviewed to discover their feelings towards the restructuring (Giesecke, 1994).

A subsequent paper (Bender, 1997) related how, following upon the serials crisis, the newly-appointed dean started a study aimed at defining the structure of the new organization applying quality-based models traditionally associated to for-profit organizations. The library staff were trained in the principles of the learning

organization. Teams were formed and empowered. Decisions were rigorously customer-centred, and based upon ongoing data collection and users' needs assessment. The dean and the rest of the cabinet limited themselves to "*question[ing] and elucidat[ing] the decisions made by the teams*" (Bender, 1997, 21). The "*old vertical organization*" was flattened into "*a horizontal organization*" (Bender, 1997, 19).

Then the "Continuous Organization Renewal Office" was set up to apply quality principles to the management of the University. It was the library however that stood out as "*a leader of change on the University of Arizona campus*" by "*breaking the mold of conventional library services*" (Bender, 1997, 22).

The heart of restructuring was team working; a further study (Diaz, 1999) examined the lessons that could be learnt from the interactions of functional and cross-functional teams and their leaders (who acted as coaches and facilitators).

A valuable dissertation (Goldberg, 2000) studied "*the impact of individual learning styles* [according to Kolb's theory of experiential learning] *of the full-time members of the University of Arizona library and their perception of support of the five disciplines of the learning organization*" (Goldberg, 2000, 3) by using a quantitative methodology (frequencies and analysis of variance among others). The variables were "*gender, years of education, tenure in the organization, and staff position*", data were collected through surveys and questionnaires and the sample was made up of all full-time employees.

The author argued that it was a common belief that private-sector organizations only tried to gain competitive advantage through learning. However, he contended that there also were outstanding public sector organizations and that their characteristics were similar to the disciplines of the learning organization.

The outcome of this quasi-experimental study was that individual learning styles at the micro level impact on organizational learning at a macro level.

III. University of Minnesota Libraries

At the University of Minnesota libraries restructuring implied flattening hierarchies, reducing bureaucracy, empowering staff, team-working, a feeling of ownership of the library by staff, and deeper commitment to customers' needs (Shaughnessy, 1996). Sometimes the burn-out of librarians was also due to the awareness that the library was slow in responding to change and that all attempts to find cross-solutions were frustrated. The new structure could foster self-esteem inasmuch as customers' expectations were more readily met. An unwanted outcome was a "*clash of classes*" between those who were committed to change and those who preferred the status quo, and staff classifications seemed to lose significance. A few administrative and managerial positions were cut and this course of action was highly controversial. No matter how open and participative the redesign effort was, mistrust and resistance to change were inevitable side-effects. The transition process was slower than expected, also because all library activities had to go on throughout. From the outside progress seemed even slower, but what really mattered was the "*cultural shift*" to "*responsible, adult behavior*", to "*a more pervasive shared vision, systems thinking, and a commitment to team-work*" as well as the determination to encourage and support "*personal and professional development*" (Shaughnessy, 1996, 254-255). Here too

> *"the Library was moving into a culture that the University was not (yet) prepared to embrace."*
> (*Shaughnessy, 1996, 254*)

The cultural realignment in libraries was made easier by the unanimous feeling of what the core mission of the library amounted to - offering higher standards of service to users.

Conflict with the "*personnel classification systems, policies concerned with performance reviews and salary administration*" of the University administration were also a collateral damage, to prevent this, the library would have had to be able to "*develop a new, team-based performance system*" (Shaughnessy, 1996, 254).

IV. University of Maryland Libraries

This paper described the "*journey*" of the UM libraries to become a learning organization (Baughman & Hubbard, 2001). Assessment criteria to evaluate whether an organization was or was not a learning organization were selected. They were an expansion of Senge's principles; emphasis was on the importance of learning collaboratively and across boundaries, on "failure" and "success" learning, on experimental and tangential learning and on depoliticizing learning, i.e. sharing information, and turning data into useful knowledge.

Based upon these criteria, a learning curriculum was devised, which was divided into five modules, namely:

1. *"Development of the organization* (…*workshops and activities related to shared visioning, systems thinking, organizational learning, change management…*)

2. *development of self and team* (…*team development, effective communication… problem-solving, effective meetings…*)

3. *exploring leadership and followership* (…*shared leadership, decision-making and facilitating skills*)

4. *defining customer service (… defining quality…conflict resolution skills)*

5. *self-awareness and conclusion.(…computer skills, project management…)".*

Focus groups and training activities were ongoing, supported by the comprehensive learning program described above. Growth and change were kept up by a clear and shared vision.

V. Central University Libraries - Southern Methodist University

This paper (Dworaczyk, 2002) used a qualitative, case study methodology to assess the results of restructuring a University library. It contended that libraries needed to improve their performances and to adapt to a changing environment more quickly and more deeply than other University units. In this case the "*reorganizational effort*" was triggered off by problems with workflow and related inefficiencies and duplication, as well as lack of unity in the division. It was built upon a change management model called "pathway to action", introduced by a consultant, whose

five phases were "*process design, problem assessment, vision, solution, implementation*" (Dworaczyk, 2002, 39). Team building exercises and communication strategies were included in the curriculum. Every team member was helped to assess his/her behavioural style.

The conclusions were that restructuring has to be based upon the "*existing culture of the organization*" and bearing in mind the "*environment and the identity of stakeholders*". "*…support … from the top is critical for success*", "*any team … must be given a great deal of freedom and authority*" and problems have to be solved "*from a systems perspective*" (Dworaczyk, 2002, 56-57).

VI. Nanyang Technological University Library

The objectives of this qualitative and quantitative research (Tan & Higgins, 2002) were to

1. "*assess the extent of the library being a learning organisation based on the fifteen characteristics*" (see below)
2. "*identify the strengths and weaknesses of the library based on the findings*"
3. "*explore and recommend solutions in collaboration with experienced librarians*" (Tan & Higgins, 2002, 170).

> *"shared vision, participatory management, training, learning attitudes, experimental and forgiving climate, open communication and dialogue, trust and togetherness, teamwork, employee empowerment, knowledge management infrastructure, fun and rewarding [work], leadership, customer relationships, adaptability, bureaucracy were identified from the literature review of successful learning organisations."*
> *(Tan & Higgins, 2002, 171)*

Questionnaires were distributed to all the staff while managers only were interviewed. The findings showed that the library had nine characteristics out of fifteen and that there was a "*Lack of a shared vision and little interaction between the top management and non-management*" (Tan & Higgins, 2002, 173)

An interesting "ethnographic" remark was:

> *"It was pointed out that Asians tend to be more conservative, were more likely to keep to themselves and were shy. It had to do with the family upbringing, the education system and society." (Tan & Higgins, 2002, 174)*

The main finding was that:

> *"The underlying assumption that all the characteristics were of equal importance may be flawed since in reality some characteristics could be more important than others for the organisation to succeed." (Tan & Higgins, 2002, 177)*

VII. University of Trento Library System

The underlying idea of this paper (Bellini, 1997) was to apply learning organization principles to public administrations to make them less costly and more effective. A course on "Project management in the library: an organizational approach, from methodologies to management tools" was the response to the scarcity of management training for librarians. The basic concepts of the learning organization were included in the curriculum. These techniques started in the Anglo-Saxon countries, whose social context is very different from Italy. The author argued that the Anglo-Saxons were more pragmatic and cooperative, and prone to work out solutions, while the Italians tended to be more sceptical and snobbish. However, Italian laws were changing and Italian users were becoming more demanding and conscious of their rights.

The libraries at the University of Trento implemented a matrix organization; they maintained a traditional hierarchical structure while setting up project-oriented teams. This produced conflicts between directors and project managers, but made it possible to give a chance to low position workers with high qualifications.

VIII. University of Florence Library System

This paper (Vannucci, 1999) described the restructuring of the library system of the University of Florence decreed by the administrative director taking advantage of the autonomy granted to Italian Universities. A prior analysis carried out by a commission made up of representatives from the library, administration, trade unions, Academic Senate and Board of directors identified the objectives: to rationalize procedures, to qualify the staff, to manage material and human resources more effectively, and to put the customer first by improving services.

The library system was redesigned as a matrix organization; the pre-existing hierarchical structure was maintained while stable teams (to ensure basic library services) and temporary teams (i.e. project-oriented) were set up. The leaders were the project managers, chosen for their organizational and relational qualities notwithstanding their position. Overcoming rigid subdivision of functions and tasks and apparently unquestionable (and by no means effective) routines turned out to be the real challenge. Such an entire reorganization of the workflow produced resistance to change and micro conflicts (especially between directors and project managers). The University restructuring kept lagging behind and inequalities between the library staff and the others were patent.

In such a process lifelong learning was acknowledged as a strategically important asset.

Another paper by the same author (Vannucci, 2000) followed this thread and considered the library system as a learning organization. Continuing professional education was given top priority. It was vital to take into account the characteristics of adult learning and the needs of new leaders who had to be specialists and managers at the same time. Modules were based on active and experiential learning, and therefore on case studies, simulations, and group working.

The aim was not merely to acquire new competences, but to foster change in behaviours and organizational culture, and awareness of the need of lifelong learning. Actually, the staff response to the courses was enthusiastic.

The evaluations of the tutors and the results of the questionnaires filled by the tutees revealed that the objectives had been reached.

IX. University of Padua Library System

This paper (Romeo, 2000) illustrated the refreshment courses for librarians organized at the University of Padua. The contents were interpersonal communication, the quality of the University services, organizational models, economic issues, information resources, and laws and regulations. Front-line workers received special instruction. The focus was on customers' needs and a committee was set up to monitor and evaluate services and instruction programs and to make the most of human resources. The underlying principle was that continuing professional development fostered ongoing change and improvement.

X. Conclusion

> *"The learning organization concept is not a miracle cure or a quick fix, and it may not be workable in all libraries. Several problems may inhibit its acceptance by library administrators, particularly during times of tight budgets and reduced staffs. The chief problem for library managers is the significant investment of time and energy required to implement the ideas of the learning organization. While it may be possible to initiate an organizational learning program within a one-year period, organizational learning is a continual process, just as individual learning is a lifelong process." (Worrell, 1995, 356)*

Academic libraries are more responsive to change than their parent organizations and this surprisingly happens on both sides of the Atlantic. It is indisputable that the principles of the learning organization are powerful tools for managing change. Librarians seem proficient in the five disciplines, even though Senge's theory has been conceived in the milieu of for-profit organizations. Some scholars sceptically state that it might turn out to be just a new management fad. They have not been included in this review because they have nothing to do with libraries!

Becoming a learning organization is actually a never-ending process and this may sound frustrating if we lack vision. But librarians are constantly focussed on providing better services to their users, and on upgrading their knowledge.

However, there is a grey area, which emerges from the literature. Let us consider this statement:

> *"Change has to start at the top because otherwise defensive senior managers are likely to disown any transformation in reasoning patterns coming from below." (Argyris, 1991, 106)*

and the following:

> *"Isn't it odd that we should seek to bring about less hierarchical and authoritarian organizational cultures through recourse to hierarchical authority?" (Senge,1996)*

How would it be possible to make the transition of academic libraries to learning organizations more bottom-up and democratic, and, needless to say, effective? There is an inherent contradiction between empowerment and leadership, and the hierarchical structure of the parent organization. Furthermore, we often witness to a "two-speed" University, led by library systems.

It would seem especially significant to examine the complex interweaving of these forces in an Italian academic library system on the way to becoming a learning organization. The perception of the traditional subdivision of functions and tasks and of the rigid University organization chart deserves investigation. A case study, aimed at obtaining rich, qualitative data, might contribute to building new models and testing the validity of the theory.

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