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Information literacy

Our personal, cultural, social and professional environment is subjected to an excessive and immensely diverse flow of information on an ongoing basis. A capacity to attribute meaning to this information is a major factor in making the necessary transition from an information society to a knowledge society *Vers les sociétés du savoir* (Unesco, 2006). In addition to basic skills such as "reading-writing-counting", the concept of "information literacy" also encompasses learning to learn and, more specifically, an ability to research, evaluate and apply information.

Information literacy: the definitions and issues at stake | Information literacy and its implementation in the academic system | The teachers/librarian relationship | How should one assess libraries, information literacy and school success? | The link between the school and the community: inter-establishment cooperation

"Information Literacy" (IL) is not a new concept. As early as 1989, the final report produced by the American Library Association's (ALA) Presidential Committee on Information Literacy laid the foundations for an IL teaching approach within educational systems, placing the emphasis on libraries. Today, IL is no longer limited to the world of librarians and information professionals. It is spreading into the educational community as a whole and, more specifically, into international organisms such as Unesco. The Information for All Programm (IFAP) has clearly made Living information (2006) one of the main priorities of its policy to "strengthen capacities" and considers that access to and usage of information is one of the universal rights of each human being.

Of course, it is not the first time that information and communication technologies have seen such a dramatic change of scale. Yet this change has highlighted a shift in the perception of information literacy from being heavily linked to the usage of libraries (documentary research) to a multi-disciplinary approach that encompasses numerous different media (textual, visual, audio, etc.), technical know-how fluctuating between co-operation and personalisation, and cognitive systems for the production, exchange and transformation of knowledge.

This development has required a re-definition of the concept (and as a result various semantic refinements), which in fact has created a rather hazy representation of IL. Similarly, the media coverage attributed to the debates (excluding those held by information professional associations) is to a certain extent generating a new momentum, thereby propelling the documentary function into the very core of the ICTE (*la fonction documentaire au cœur des TICE - Dossier de l'ingénierie éducative*, n° 49, December 2004) and, conversely, the ICTE into the core of the documentary function. Paradoxically, this is weakening the role played by the libraries and seriously challenging the librarian/teacher relationship.

In this *Newsletter*, we have used several recent publications to shed light, from an international perspective, on the conceptual changes that have taken place in information literacy and its application within the educational environment (essentially in the secondary school system), whilst paying specific attention to the role played by libraries. In our French texts we will use the term "éducation à l'information" for "*Information literacy*", as we consider this expression to be representative of the knowledge building approaches required for "controlling information flows". The terms "bibliothèques scolaires" and "bibliothécaires scolaires" ("school libraries" and "school librarians") are also used to offset the diversity of national vocabularies: "centre d'information et documentation" (CDI) and "professeurs documentalistes" in France, "learning resource centre" (LRC) or "open learning centre" (OLC) and "LRC, OLC manager" in the United Kingdom, "learning media center" and "learning media specialist" in the United States, "school library" and "teacher-librarian" in Canada, etc.

Information literacy: the definitions and issues at stake

"Littérisme", literacy and multiple literacies

The Alexandria Manifesto (November 2005) - under the aegis of the Unesco and continuing on from the Prague Declaration (September 2003), describes the two concepts of i) learning to 'control information flows' and ii) lifelong learning as the "beacons of the information society, lighting up the path to development, prosperity and liberty". The Alexandria Manifesto on Libraries to a certain extent supports this "digital teaching approach" by stressing the importance of the role played by libraries (as part of a global process), to reduce the digital divide, whereas the final report published in March 2006 issued a list of general recommendations for boosting the implementation of *information literacy* in the education process (*High-Level International Colloquium on Information Literacy and Lifelong Learning*).

"Literacy", defined by the OCDE and Statistiques Canada in 1995 as "the ability to understand and use written information in everyday life, at home, at work and in the commune with a view to attaining personal objectives and to broadening one's knowledge and capacities" and officially translated as "littérisme" in France (August 2005), is moving away from a perception historically associated with the ability to read/write/count and is starting to be considered as a continuum of knowledge, skills and strategies incorporating the capacity to apply digital technologies and communication tools.

With these digital configurations, the perceptions of literacy are becoming increasingly numerous. It's almost as if each new technology has to overturn the existing frameworks. Following initial acceptance based around documentary usage therefore ("library literacy" or "library instruction"), the terms "computer literacy", "technology literacy", "visual literacy", "media literacy" or even "digital literacy" are also used in reference to a variety of skills (some more specific than others), either in the form of a synonym, as a form of complementarity, or to represent the different facets of a group of skills encompassed by the generic term "information literacy". For an overview of some of the discussions referring to these different concepts, you can read the article by Sirje Virkus (Information literacy in Europe: a literature review, 2003) and the report by Chris Armstrong et al. (Defining information literacy for the UK, 2005).

It is not insignificant, moreover, to note that the plural form is becoming more widespread with terms such as "new literacies" or "multiplication or even "21st century literacies" in the United States. Similarly, the all-encompassing concept of "media literacy", now enjoys a certain degree of usage in the scientific community (most notably in the United Kingdom). Some, however, prefer a hybrid concept such as "media & information literacy" or even "information and digital literacies".

The more transversal concepts of "multicultural literacy", "critical literacy", "knowledge management" and "lifelong learning" are all linked to IL. Curiosity and creativity and self-efficacy are also both considered as essential attributes of IL. The importance of the contextual aspect is reinforced by the acknowledged necessity to formulate specific problem-solving strategies. With these new approaches, IL is perceived as a pre-requisite for academic success, professional success and even for life as a citizen

Although it can hardly be considered as providing a clear representation, this profusion of concepts is extending the debate beyond the frontiers of the library world, and is refocusing on the cultural capital essential for constructing a pupil's autonomy. In spite of the semantic diversity, one has to acknowledge the convergence trend with regard to all the issues related to IL. It is now the issue of implementing these concepts in the academic system that is crucial.

Moving towards a new theoretical learning framework

The logical conclusion of the growth seen in these new forms of literacy has to be a re-defining of the strategic framework with regard to their application in the educational world. This, for example, is the objective adopted by the participants in the DigEuLit project, financed by the European Commission. The group will contribute to the defining of a European Framework for Digital Literacy (EFDL) between now and the end of 2006 (see the *progress report*).

Most of the written studies on this theoretical definition single out (some more openly than others) the unsuitability of the academic form. This necessity to re-define the school's role, evoked in the Unesco report quoted above (*Towards Knowledge Societies*), seems to be especially significant in light of the skills that these new literacies require.

In their study New Literacies: Changing Knowledge and Classroom Learning (2003), Colin Lankshear and Michele Knobel (see book review) draw attention to the profound structural divide between the British curricula and the social and cultural context in which these new literacies exist. According to this pair, the school establishment is still firmly entrenched in a proposal approach that does not take into account the "insider" mentality of contemporary young people, i.e. the digital applications developed outside school life.

According to Douglas Kellner (*Technological transformation, multiple literacies and the re-visioning of education,* 2004), the curricula approach vis-à-vis these new literacies is only valid if it adopts a global standpoint with regard to overhauling the academic system and promoting communication, creativity and action skills, thereby defining the pupil as an active and committed individual. Kellner refers to the work of Paulo Freire, Ivan Illitch and John Dewey in his analysis of these new academic approaches, going beyond the divide between pupils' cyberculture and the authoritarian forms of teaching based on the legitimacy of the printed material culture.

In their article "Toward a theory of new literacies emerging from the internet and other information and communication technologies" (2004), Donald Leu, Charles Kinzer, Julie Coiro and Dana Cammack advocate the definition of a new theoretical framework inspired by this variety of perspectives. They support their proposal with ten fundamental principles. To summarise: their examination of the dialectic between ICT and multiple literacies led them to position critical reasoning at the centre of the development of these literacies and to promote new learning strategies based on a collective social construction rather than knowledge transmitted via the teacher. The teacher's role must consequently adapt, and become an orchestration of learning opportunities with and between the pupils.

To a certain extent, these perspectives take us back to the initial phases of IL in the Eighties, when the mobilisation was essentially injunctive. What has happened since? How were the recommendations issued by the professional associations applied within the educational system? This is what we are now going to examine.

And also

- The report by Penny Moore, An analysis of Information Literacy education worldwide for Unesco and the National Forum on Information Literacy (2002);
- In the United States, the report Results That Matter: 21st Century Skills and High School Reform (2006).

Information literacy and its implementation in the academic system

Skill referentials and dedicated structures, 1990-2000

According to Paulette Bernhard, (Apprendre à « maîtriser » l'information : des habiletés indispensables dans une « société du savoir », Learning to "Master" Information: Indispensable Skills in a "Knowledge Society" - 1998), IL entered a normative

maturation phase during the Eighties, which resulted in the production of the initial information research models. These models divide the process into several stages (from three to twelve according to the model). Some have gained international recognition and some have even inspired numerous local reformulations: the nine questions asked by Marland and Irving (United Kingdom, 1979), the Information Search Process by Kuhlthau (United States, 1982), the Big Six Skills by Eisenberg and Berkowitz (United States, 1988), the PLUS model by Herring (United Kingdom, 1996) the research cycle by Jamie McKenzie (1999, Australia) and the seven pillars by the SCONUL (United Kingdom, 1999). For a detailed and comparative look at these models, you can visit the French/Canadian site Formanet.

It was on the basis of this foundation that IL was first applied in the academic world, via skills referentials, progression models and criteria grids (a few examples can be seen at SavoirCDI). It was also during this decade that the first European projects started to take shape. Two multilingual platforms were created for teaching young people to search for information. This work was carried out as part of the CHILIAS projects (*Children's Library – Information – Animation – Skills*, 1994-1998) for children between the ages of 9 and 12, and the VERITY projects (*Virtual and Electronic Resources for Information Skills Training for Young People*, ending in 2000) for teenagers between the ages of 13 and 19.

In his review entitled *Information literacy in Europe: a literature review* (2003), Sirje Virkus stresses that from the Nineties onwards, dedicated structures appeared, which were responsible (some more officially than others) for keeping the public authorities informed of the implementation of IL in secondary and/or further education. The most important of these were as follows: the National forum on information literacy (NFIL, 1989) and the Institute for Information Literacy (IIL, 1998) in the United States; the Australian and New Zealand Institute for Information Literacy (ANZIIL, 2001) in Australia and New Zealand; the SCONUL Working group on information literacy and, to a lesser extent, the National Literacy Trust (NLT, 1993) in the United Kingdom and the NORDINFOlit in the Scandinavian countries. Initially, the consultative role of these structures served to a certain extent to publicise the work carried out by the professional librarian associations.

Very rapidly, the development of technologies (and, most notably, greater access to full text) cast a new light over the importance of these models and initiated the emergence of new information search trends.

From the search for information to inquiry learning

The application of these literacies (which generate new inequalities) remains limited in educational practices. The predominant focus on the usage of resources (referred to by some as "resource-based learning") has revealed two strong trends: a diversity of search modes (in correlation with the full text search engines and new social navigation tools), and secondly a "problem-solving" type approach incorporating an upstream assessment of the pupil's level of knowledge and the downstream generation of knowledge.

In France, work on the teaching of IL has generally been focused around the "instruction of users" and on methods and search tools. In spite of the numerous objections formulated with regard to instruction in the usage of search engines, Alexandre Serres believes that to ignore the role of Google in documentation and information centres (*Moteurs de recherche et maîtrise de l'information : faut-il former à Google et comment?*, 2005 – Search engines and the control of information – should there be training in Google and, if so, how?) would be to risk distancing the establishment from the pupils and their everyday habits. Whereas the arrival of the Internet in schools should lead to a re-definition of the organisation and documentary practices (*Pratiques, réseaux et territoires : les professeurs-documentalistes aux confluences des mutations*, 2004 – *Practices, networks and regions: teachers/documentalists at the heart of change*), Loïc Le Roux shows that the dominant usage of Google by researchers reveals an "iterative, spontaneous and captive" approach, the popularity of which is altering the reference framework of traditional "library" type research. A happy medium could be found via the community monitoring strategies which are currently becoming increasingly popular and which hint at a liberalisation of the documentary search process (*Circulation de l'information et « navigation communautaire » chez les enseignants-documentalistes*, 2005 - the circulation of information and "community navigation" within the world of teachers-documentalists).

In parallel to these studies carried out on the tools themselves, the information models originally drawn up in the Nineties are now being updated to combine both procedural and cognitive skills. The "inquiry learning", "problem-based learning", or "information problem solving" approaches are now being modelled. Examples of these are the "big6 skills" by Eisenberg and Berkowitz, the "webquests" by Bernie Dodge or even the "Guided inquiry" by Kuhlthau and Todd. In the latter example, learning is based around a personal and social construction process via a dynamic model, which incorporates three dimensions: an informational dimension, which corresponds to control over the resources (reception) via an explicit and contextualised teaching process, a transformational dimension, which is linked to the appropriation of gathered information (evaluation) and an instructional dimension, which corresponds to the application of this constructed knowledge (production) (see It's all about getting'A's, 2006).

Heterogeneous, partial or even competitive educational integration

Backed up by international scientific literature, Penny Moore (*An analysis of Information Literacy education worldwide*, 2002) draws attention to the initiatives taken in favour of information literacy since the creation of information search models, whilst illustrating the difficulties persistently encountered in implementing IL in schools. In particular, she underlines the strong disparity between the genuine progressive structuring of the libraries' educational function and the lack of knowledge of the practitioners with regard to this function. According to Katherine Miller (*Novice Teachers'Perceptions of the Role of the Teacher-librarian in Information Literacy*, 2005), international scientific literature has drawn attention to the constant lack of imagery in the librarian's teaching approach over the last twenty years. Administrators and teachers have, moreover, a very approximate knowledge of the information literacy concept, and do not make a connection between IL and the librarian.

According to Penny Moore, the result of this partial integration is a generalised focus on approaches, which are limited (at best) to the exploiting of documentary resources through modular activities. These approaches turn out to be totally unsatisfactory in view of the skills required by the numerous aspects of literacy evoked above.

According to Sirje Virkus (*Information literacy in Europe: a literature review*), from a European perspective, several trends are now visible in this second phase, with the emphasis simultaneously on documentary instruction, instruction in ICT and a move towards cognitive strategies favouring autonomous learning. The relationship with the teachers themselves remains complex.

Germany and Holland are focusing more on information technologies, and curricula have been made more innovative through the introduction of the "information and computer literacy" concept (ICL). In the Scandinavian countries, and notably in Sweden, the teaching of IL was initially backed up by usage of the library and the production of specific learning materials, prior to promoting a stronger teacher/librarian relationship via a problem-solving based approach. In Spain also, "educación documental" which was introduced into the curricula in 1992, favours the production of learning material and the sharing of experiences vis-à-vis ICT linked projects.

These different educational approaches are notably conditioned by the status enjoyed by libraries in the original schooling system. In other words, the librarian/teacher collaboration is seen as essential in countries where the school libraries historically benefit from the support of the public authorities and/or a network of active professionals (e.g. England, Australia, Canada, United States, France and Quebec), whereas in countries where the school library development initiative remains local (e.g. Belgium, Italy, Spain and Germany), wide-ranging studies are being carried out on the usage of ICT.

Moreover, these two approaches are not mutually exclusive. The introduction of the computer patent and B2I Internet in France in 2000 (the inspiration for the Belgian and Polish referentials) clearly corresponds to an evaluation of the level of skills attained in the usage of ICT, which is part of a transversal approach and is distinct from any specific teaching approach. In spite of the significant growth seen in the number of committed establishments (2 junior secondary schools out of 3 in 2004), Régine Gentil and Jean-François Lévy underline in their report *Le fonctionnement du brevet informatique et internet au collège*, 2005 - *the functioning of the IT and Internet diploma at a junior secondary school*) that implementation largely remains the responsibility of technology teachers and that no specific dynamics on the part of the establishment are in evidence (either in terms of equipment or educational innovation). Furthermore, the mobilisation of the inspection bodies and educational authorities (which vary enormously from region to region) is not having the impact initially hoped for on the coordination of initiatives and monitoring of pupils, notably in the transition between the primary school and the junior secondary school. For a complete overview of this approach, one can also read the Café Pédagogique report (*Le B21 en 2004. Enquêtes et analyses - The B21 in 2004. Investigations and analyses*) produced by Bruno Devauchelle.

In spite of the diversity of these approaches, what is particularly significant here is the dual convergence towards the importance of these new skills and the implementation difficulties encountered in school systems organised to distribute information and not to promote learning. But, as we will see below, the problems are not merely structural.

The teachers/librarian relationship

At an international level, two framework documents jointly produced by Unesco and the IFLA (International Federation of Library Associations and Institutions) laid the foundations vis-à-vis the educational role to be played by school libraries: the *School library manifesto* (1999), added to in 2002 with a list of recommendations regarding resources, staff, activities and class, and the *School libraries quidelines*.

These texts have been evaluated in various national situations, and in all cases the emphasis has been placed on the educational role played by the school libraries. In each case, the learning approach with regard to information skills was integrated progressively. One can read the following documents:

- The documents published by the American Association of School Librarians as part of the research programme Information Power, and notably the report *Information Power: Building Partnerships for Learning* (1998) and the referential *Standards for Initial Programs for School Library Media Specialist Preparation* (2003);
- The Canadian referential Students'Information Literacy Needs in the 21st Century: Competencies for Teacher-Librarians, published in conjunction with the Association for Teacher Librarianship in Canada and the Canadian School Library Association in 1997;
- The guides published by the CILIP in the United Kingdom: *Primary school library guidelines* (2002); *CILIP guidelines for secondary school libraries* (2004); the DFES standards *Key stage 3 and the library*; the official information campaign with regard to the role of school libraries: School libraries making a difference;
- All the French regulatory texts concerning the role of researcher/teachers.

Subject-based or transversal learning?

These recommendations are the product of their own cultural environment and require different applications. In his review (*Information literacy in Europe: a literature review*), Sirje Virkus reports on, in great detail, the numerous discussions held over the last ten years (particularly in the United Kingdom) between the partisans of a normative approach, with the introduction of IL into the curricula, and the supporters of a non-curricular transversal approach, based on subject information. These discussions are driven by the dichotomy between "information skills" and "information literacy", in other words between a segmented instrumental approach and a global approach favouring the cognitive processes.

Although the official texts favour an interdisciplinary approach, the administrative classification of librarians as single subject teachers since the creation of the CAPES in 1989 (an essential stage in the process of becoming professional), suggests that school documentation could be eligible for classification as a school subject, as explained by Céline Duarte-Cholat in her article *De la professionnalisation des documentalistes vers une discipline d'enseignement*, 2002 - *From a professionalisation of documentalists towards a teaching approach*). This position is notably supported by Yves le Coadic (see interview) and by Muriel Frisch in her work *Évolutions de la documentation et naissance d'une discipline scolaire* (2003 – *Developments of documentation and birth of a new subject*, see book review). The latter bases her argument on the need to formalise a curriculum, to plan instruction initiatives (whilst respecting progression imperatives and implementing a systematic collaboration with the teacher involved), to implement a specific theoretical teaching approach and finally to construct evaluation tools specific to an information science. In her article *Perspectives sur l'éducation à l'information*, 2003 - *The outlook for information literacy*), Paulette Bernhard reminds us, however, that this "teacher identity" is merely a component of the school librarian's identity, and that this "temptation for subject specialisation" runs the risk of creating an imbalance that could damage his other functions as an information professional and administrator/planner.

Although not resolved, this debate between theoretical teaching and cognitive processes must be overcome, if only for the benefit of the pupil. Jo Webb and Chris Powis (*Start with the learner*, 2005) stress that the main issue at stake here lies in

the strengthening of the pupil's capacities ("empowering users"). They denounce the sterility of introducing IL into the curricula to the detriment of a global approach, in view of the theories that highlight the diversity of the learning styles. According to these two, librarians should provide an environment that is tailored to the progression of these different strategies, whilst proposing educational activities that are both open and well-targeted in relation to the curricula. This position, i.e. advocating a refocusing on pupils' requirements and expectations, is also supported by the CILIP in a report published in 2002, *Start with the child*, which examines the relevance of the services offered by the libraries in light of these requirements.

With these new configurations, one has to note that, ultimately, the official texts make little use of the collaboration modes, which to a certain extent have to be implemented locally. The highlighted mediation function advocates a dynamic fertilisation process with regard to the curricula-based and documentary approaches, and implementation is generally left up to the players themselves. Is this an advantage or disadvantage? As stressed by Françoise Chapron (*L'évolution de la place de l'information-documentation dans le système scolaire* (*Development of the role played by information-documentation in the school system*) at the national conference for information literacy and instruction in documentation (2003), one of the principal pitfalls remains the absence of global analysis with regard to a reference curriculum, supported by an initiative to ensure that the measures implemented are consistent through from secondary education to further education.

This essential issue of an educational continuum between secondary and further education is currently being researched via a study entitled Information Literacy Skills: the link between tertiary and secondary education carried out by the Department of Learner Support at the Glasgow Caledonian University (Scotland). Moreover, it cannot be separated from the issue of librarians' initial and continuous training (which again would benefit from greater consistency); the article *Building a Foundation for Collaboration: K-20 Partnerships in Information Literacy* (2005) reports on the partnerships implemented in Minnesota.

Collaborations prescribed - with contrasting results

In her article *Toward a theory of collaboration for teachers and librarians* (2005), Patricia Montiel Overall defines the collaboration as a relationship of trust between two or more equal participants, adhering to common objectives and based on a shared schedule and joint educational sequences. The learning opportunities produced by the relationship between the curriculum and IL are consequently part of a global process stretching from the preparation of activities to the assessment of pupils. The author outlines two levels of implementation: "integrated instruction", where the collaboration is represented by an educational team, and "integrated curriculum", where the collaboration becomes systematic and generalised via official prescriptions.

However, few studies make it possible to evaluate the impact of these prescriptions on either the collaboration's dynamics or the learning approach. We will take two examples: the Profile of Learning (POL) programme launched in 1998 in the state of Minnesota and the supervised personal study programme (TPE) in application in France since 1999.

The POL, designed to promote the educational role of senior high school librarians, revolves around a series of evaluation standards to be applied to "resource-based learning" type projects, which are left up to the teachers' own initiative. Marie Kesley, in her article Education Reform in Minnesota: Profile of Learning and the Instructional Role of the School Library Media Specialist (2006), shows that although the number of people using the library has indeed increased, and although librarians have seen their position of educational mediator reinforced, a high proportion of teachers (50 %, in more than half of the senior secondary schools questioned) do not send their pupils to the library, and a majority felt that their expertise was being questioned. In spite of the new project dynamics, only 20 % of the establishments have increased their budget for material expenses, and 30 % for technological expenses.

In France, the TPE (personal study programmes) differ to the POL programme in that the former are cross-strand, obligatory in the first grade and incorporated into the 'baccalauréat'. Vincent Liquète, in his article *Analyse du dispositif des travaux personnels encadrés (TPE) vu par les professeurs-documentalistes* (2003 – *Analysis of the TPE [personal study programmes] as seen by teachers-documentalists*), shows that although the introduction of this system represents a genuine innovation for teachers, two thirds of the librarians see it as a means of injecting dynamism into practices that, when is all is said and done, are very ordinary. Nevertheless, the reality of the "collegial practice" remains unsatisfactory: although the TPE represent an opportunity to generate a shift in the documentary policy and the services vis-à-vis the teaching team, the educational approach is seen as marginal, heavily technicised, even determinist, to the detriment of an open and multi-contextual approach requiring critical reasoning on the part of the pupil. To conclude, the librarians draw attention to their uncomfortable "professional dilemma", which forces them to arbitrate between administrative and educational roles.

And also

- The article by Christiane Étévé and Vincent Liquète, Vers une collégialité du travail enseignant : les Travaux Personnels Encadrés (TPE) dans les lycées, in the work Les pratiques enseignantes hors de la classe (2004 Teaching practices outside the classroom);
- The study by Bonnie Lange, Nancy Magee and Steven Montgomery, *Does Collaboration Boost Student Learning?* (Canada, 2003);
- The impact studies by the EPPI in England: A systematic review of the impact on students and teachers of the use of ICT for assessment of creative and critical thinking skills (2003), A meta-analysis of the impact of the implementation of thinking skills approaches on pupils (2005) et The impact of the implementation of thinking skills programmes and approaches on teachers (2005).

Teachers' informational requirements: an opportunity for collaboration?

According to the report by Jean-Louis Durpaire (2004), although teachers consider that documentary services primarily target pupils, Vincent Liquète advocates a better understanding of teachers' documentary and informational requirements if this move towards a collaboration with the librarians is to be successful, notably via a better assessment of the local environment (L'information et la formation à l'information de l'enseignant : état des lieux et perspectives, 2002 - Information and information literacy vis-à-vis the teacher: inventory and outlook). This approach can therefore be implemented at the level of the documentary policy (monitoring of the profession, educational funds, targeted documentary products, etc.) and also at the level of the instruction, by developing informational mediation vis-à-vis digital documents and by encouraging mutual instruction within the establishment.

This approach has been researched on several occasions at the Robert Gordon University in Scotland. A project currently in progress (*Teachers'Conceptions of Information Literacy in Relation to their Classroom Practice*) aims to examine the representation of IL by teachers in the secondary education system and to look at how IL is integrated into educational practices, in comparison with the approach adopted by librarians (see details: *How do secondary teachers see IL?*). An initial project, carried out in 2003, had stressed the importance of implementing a policy to publicise research results, which should encourage the capacity to think analytically and the integration of informational skills (*Teachers'use of research information : information literacy, access and attitudes*). Indeed, although teachers are globally confident in their capacity to search for information linked to their particular subject, they seem to be much less capable of introducing this informational dimension into their practices, and draw attention to the difficulties encountered in accessing professional and scientific literature, highlighting usages that are largely undeveloped and empirical

Pupils involved in library life

Several studies highlight the satisfaction expressed by pupils when the library offers an environment that is both rich in resources and flexible, making it possible to combine individual and group activities, and with staff that are open and ready to help. These points are particularly relevant for primary schools and establishments located in rural or underprivileged zones (Student learning through Ohio school libraries: Findings of the Ohio research study, 2004) and for pupils from underprivileged families and/or poor performers at school (School Library Media Centers: Selected Results From the Education Longitudinal Study of 2002 (ELS: 2002), 2004).

From a similar perspective, certain research studies show that involving pupils in the management of a library is a stimulating experience, the effects of which can clearly be observed throughout the entire establishment. As a result, Linda Braun, in her book *Technically Involved: Technology-Based Youth Participation for Your Library* (ALA editions, 2003), promotes the idea that the participation of pupils in the life of the library and, in particular, their involvement in technological projects (sometimes viewed with a certain degree of scepticism by adults) can be a beneficial alternative for the two parties. This participative management approach favours inter-class and inter-generation relationships and stimulates reading and exchange; it gives the pupil an increased sense of responsibility and highlights his commitment (see book review). Similarly, the report by the OFSTED, *Good school libraries: Making a difference to learning*, highlights the role of "pupil librarians", who benefit, in certain establishments, from a full training course prior to being given responsibilities in reception tasks and acquisition policies. Also stressed here is the relay role adopted by these pupils vis-à-vis their peers, notably in terms of documentary research

The role of the establishment head

One of the first international reports to have questioned the role of the establishment head in the promotion of IL is the study produced by the IFLA in 2002, entitled *The School Library – Principal Relationship: Guidelines for Research and Practice* (see book review). The survey, carried out in seven countries (Australia, Canada, South Korea, Scotland, Finland, France and Japan), reveals a substantial amount of common ground between the viewpoints of the director and the librarian: school libraries have a major role to play in providing educational support to teachers and pupils, notably supplying suitable resources and equipment. Whereas the financing of these structures is perceived to be one of the biggest challenges, the establishment head's commitment vis-à-vis the implementing of a policy focusing on informational skills is shown to be crucially important. This is also the conclusion of Patricia Montiel Overall (*Toward a theory of collaboration for teachers and librarians*), who stresses how crucial it is for the establishment head to facilitate the planning of collaborations between teachers and librarians

More recently, the report *Good school libraries: Making a difference to learning* published by the OFSTED (March 2006), following the inspection of approximately thirty British primary and secondary schools, shows that the key factor in a relationship between libraries and learning remains the definitive and joint commitment shown by both the establishment head and the school's administration. Without what would be referred to in France as an establishment project (i.e. run by the management team and involving the entire staff) the library remains associated with reading and documentary research, and cannot be considered as central to the learning process. With this type of project, the librarian plays a central role as both the information system manager and promoter of educational opportunities, working closely with the school curricula.

The librarian as a project manager of informational resources

Form a more global perspective, it is useful to point out that these collaborations are ultimately heavily dependent on both the roles assigned to the librarian (who cannot merely be limited to the implementing of educational sequences) and on his actual resources.

In her article *Perspectives sur l'éducation à l'information* (IL perspectives - 2003), Paulette Bernhard reminds us that a librarian's identity can only be evaluated from multiple perspectives, in other words in his roles as teacher, documentation professional and administrator/planner. It suggests that the concept of "project manager of informational resources" should be explored in order to make this transition *Du système d'information à la gestion des connaissances* (*from the information system to knowledge management*) for which the communicational and collaborative dimensions are central (Devauchelle, 2004). In a recent article, Gérard Puimatto analyses the transformations seen in the documentalist's profession at a time when digital work environments are developing: he shows that there is still a great deal of ground to be covered by the documentary aspect of school information systems, even if it is only in defining the approach for their implementation (*Les fonctions documentaires dans le contexte numérique. Nouveaux contextes... nouvelles pratiques*, 2006 – *The documentary functions in the digital environment...new practices*).

With this broad perspective of informational resources ("learning resource centre", "open learning centre" in the United Kingdom, and "learning media center" in the United States), learning revolves around both formal and informal opportunities, and involves both group and individual approaches. The combination of flexibility of opening hours and access to resources is essential for developing multiple learning styles (see Joy McGregor: Flexible Scheduling: Implementing an Innovation, 2006). This view of mediation can be reconciled with the studies carried out by the BPI on multimedia self-teaching resources (Bibliothèques et autoformation. La formation tout au long de la vie: quels rôles pour les bibliothèques à l'heure du multimédia?, 2006 – Libraries and self-instruction. Life-long learning: what roles will libraries play in the multimedia era).

How should one assess libraries, information literacy and school success?

School evaluations

All the studies that incorporate recommendations with regard to information literacy highlight the importance of the construction of indicators to evaluate both the library's activities and those of the librarian. They also stress the importance of assessing the relationship between the services offered and the learning process, and underline the difficulties involved in the implementation process, particularly at a micro level. It seemed to us that three recent studies shed some interesting light on these issues.

The study by Terrance Pon, entitled *Evaluation of the teacher-librarian: Review of the models* (2005) reviews the obstacles encountered in the qualitative evaluation of a librarian's activity and the different models in existence... e.g. the models that relate to professional evaluation (which include checklists and rubrics for example); those that take personal qualities into account (including interviews and personality tests) and those that incorporate mixed evaluations, combining the professional and personal dimensions, such as the portfolios and collaborative model proposed by Ken Haycock in 1999.

Sarah McNicol and Judith Elkin (*School Libraries: The Design of a Model for Self-evaluation*, 2003) propose a self-evaluation model for school libraries in primary and secondary education, with the emphasis on teaching-learning. The study by Terrance Newell, *Thinking beyond the Disjunctive Opposition of Information Literacy Assessment in Theory and Practice* (2004), looks at the development of an evaluation platform called VILLAS (Virtual Reality Information Literacy Learning and Assessment Space), which provides the beginnings of a solution to the principal difficulties identified, i.e. lack of time, marginalisation visa-vis the teacher, lack of knowledge of the administrative and educational staff and the number of pupils to be assessed.

Impact studies on school success

In the United States and, more recently, Canada and the United Kingdom, evaluation of the libraries' educational potential is carried out via broad impact studies, which aim to reconcile statistical data on the libraries (allocations in terms of staff, budget, collections, infrastructures, etc.) with the results obtained by pupils in national or international tests. These studies are part of a militant promotional approach, and some of the most recent are listed below:

- the report by Ken Haycock, published in 2003 under the title *The crisis in Canada's school libraries: The case for reform and reinvestment*, is a systematic review of the impact studies carried out since the Sixties in the United States and, to a much lesser extent, in Canada. It represents a key overview for understanding the current situation of school libraries and analysing their strategic development in the North American context. All the studies carried out over the last 40 years show that a public policy to promote school libraries has a positive effect on school results, and notably on reading and writing skills, whilst also impacting the success of further education. The variables highlighted in these studies include collections, professionalism, curricula and financing methods;
- in Canada, the study published in April 2006 by the Ontario school library assocation (OSLA), School libraries and student achievement in Ontario, uses the data obtained via tests carried out by the Office de la Qualité et de la Responsabilité en Éducation (50,000 pupils) and from the resource inventories of 800 public elementary schools, carried out by People for education. The results not only show that the presence of librarians encourages reading and an interest in books but also that pupils registered at schools with qualified librarians obtain scores that are, on average, 5% higher in reading tests. The authors note, moreover, that the decline in pupils' results over the last five years coincides with a reduction in the number of librarian positions in primary schools;
- the study by Statistique Canada, Canadian School Libraries and Teacher-Librarians: Results from the 2003/04 Information and Communications Technologies in Schools Survey (2005), has already been mentioned. Although no causal link could be identified between the acquisition budget or the allocation of "full-time librarians" and the PISA test results, these two criteria have a positive impact on the educational usage of ICT in all the provinces;
- in the United States, the study Powerful libraries make powerful learners (2005), carried out on a sample of 657 school libraries for the Illinois school library media association confirms what thirteen previous surveys (directed by Keith Curry Lance) had highlighted in other states: skills test results are between 15 % and 20 % higher in establishments that have qualified librarians, resources that are both extensive and continually updated, a computer infrastructure offering access to documentary databases and catalogues, and library opening hours that show a certain level of flexibility.

And also

- In the United States, the study carried out for the second consecutive year by the Scholastic fondation: School libraries work, (2006); and finally the report by Lesley Farmer also published in 2006: Library media program implementation and student achievement, based on approximately sixty Californian schools;
- In the United Kingdom, the two studies carried out by Dorothy Williams, Louisa Coles and Caroline Wavell: *Impact of school library services on achievement and learning in primary schools* (2002) and *Impact of School Library Services on Achievement and Learning* (2001) for secondary education.

The link between the school and the community: inter-establishment co-operation

In 2005, James Henri and Marlène Asselin, in their work Leadership Issues in the Information Literate School Community, highlighted the concept of "information literate school communities" in reference to the hazy constellation of the factors, objectives and practices that a learning-based environment consists of, rather than the procedural control of information. According to these two, IL represents a real opportunity for a global re-analysis of the constraints created by the current school situation, and notably with regard to physical frontiers, in order to promote informal learning.

With this in mind, we can observe in the Scandinavian countries and in the United Kingdom significant interest in a cooperation between public and school libraries. We should note, first of all, that this type of co-operation is not totally new. In the Nineties, the two European projects already mentioned, CHILIAS and VERITY, brought together partners from several countries (from both the public reading network and school documentation) for the construction of distance-learning platforms.

In the United Kingdom, initiatives in favour of inter-establishment collaboration stem essentially from the cultural sector. Through its programme Inspiring learning for all, the Museums, Libraries and Archives Council (MLA) is implementing an active campaign to involve cultural organisations in education. The results of the wide-reaching Wider Libraries Programme (2002-2003), which encompasses public, school and university libraries as well as hospital and prison structures, shows a great deal of common ground in opinions concerning the future of information services, notably with regard to access to digital resources and the role of information literacy (in spite of the diversity of contexts).

Two studies carried out by the Evidence Based Research and Evaluation Centre at UCE Birmingham University highlight the Best Practices and issues at stake regarding co-operation between school and public libraries: Investigating links between school and public libraries (2003), Dual use public and school libraries in the UK (2003). The first covers common activities based around reading, information literacy and school support, together with joint professional training, with specific attention paid to the role played by the support services (i.e. the Schools library services in this model).

The second looks at the emerging model of mixed libraries, which bring together staff and public from the two sectors within the same library (which is part of the school). In spite of the easily identifiable benefits, the study underlines the difficulties encountered in constructing a balanced services-offer catering for the two parties, the reservations expressed by the teachers and the lack of involvement by the authorities in implementing organisational modes.

The article Cooperation between public and school libraries. A Norwegian view, published in the last issue of the review *Scandinavian public library quaterly* (vol. 39 n° 1, 2006) and entirely dedicated to the collaborations between public and school libraries, offers a contrasting view of the Norwegian situation. Although the objective for this co-operation is clear with regard to the public libraries, it is much more hazy for their school equivalents and is not supported by co-ordinated planning. Similarly, whereas a third of the Norwegian public libraries are designed in line with the mixed library or the "combi library" concept (94% in the primary education sector), the effective link between the two "approaches" depends above all on the cohesion of the local community, which ensures that the project is widely promoted and is successful. In a study carried out by the UCE Birmingham University, entitled Schools, public libraries and dual use libraries in Norway (2004), the author observes an imbalance in the services vis-à-vis the school and a decline in the number of local community members using the mixed libraries.

In Sweden, despite the fact that one has only recently become aware of school libraries' educational potential, the benefits of a school / public collaboration remain little implemented (despite being clearly identified by the public authorities) and is perceived by school documentation professionals as being nothing more than a compensatory system (School + Library = linguistic progress + reading skills). In Denmark, four associations of librarians joined forces in 2005 to produce an updated model of the "combi library" (already in existence for nearly 30 years). The resulting "integrated library" goes beyond the framework of a bilateral co-operation developed in demographically poor zones and promotes a place of culture, learning and knowledge, which is run by committed professionals who take on the role of genuine information consultants (New perspectives for the merging of public and school library).

You can consult the list of bibliographical references used for this newsletter in our collaborative bibliographic database (theme selection: "éducation à l'information" and "bibliothèques scolaires").

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