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Behind the curriculum of library and information studies – Models for didactical curriculum reflections

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Abstract
The approach of this paper is didactic at an institutional or regional/national level. The paper presents reflections on the research and educational content and structure of curricula of LIS-schools. Differences between LIS-schools understood as what could be called profession-oriented schools characterised by many subject areas with strong elements of work experience educating "the complete librarian" and academic schools with a curriculum dominated by theoretical skills based upon research are considered. The paper argues for keeping the L-word alive in LIS and that knowledge organization could be a suitable didactical core domain and form the interior coherence of content when constructing a LIS-school curriculum at an academic level. The paper focuses solely on content and the thinking behind LIS-schools curricula, and leave out any kind of reflection on educational forms as for instance problem based learning contra traditional classroom teaching.

Introduction

During the last 10-15 years quite a few LIS-schools in the Scandinavian countries and the EU have changed from primarily profession-oriented schools based on a vocational platform and comprehensive programmes consisting of packages of necessary librarian skills to research based academic educations at university level. This is the case, for instance, at the Royal School of Library

and Information Science, Denmark (RSLIS). RSLIS obtained university status by law in 2000 after an international research evaluation.

In the same period new LIS educations have come up typically as smaller departments at universities offering more focused and narrow curricula than the broader profession-oriented traditional educations. As far as I see it, we recognise the same phenomena all over the world, for instance in the USA, where the L-word discussion is an indication of this process. In short, I think that many staff-members at LIS-schools have or have had the understanding that "the more library" in LIS the more orientation towards the profession and mastering all aspects of a functioning library, and the more "information science", the more university. The complete librarian as she is called by Audunson, Nordli and Spangen (2002[1]) in Norway or in Tom Wilsons (1998[2]) word, the case librarian, is under pressure. The problem raised by the Norwegians is, and that seems to be a problem all over the world, whether it is possible and reasonable to keep the vocational platform or the profession-orientation and the L-word alive when the schools develop from profession-schools to institutions at academic levels. In other words, is the divorce between the practising librarian, the complete librarian and his needs and the LIS-education inevitable in a society gradually dominated by the hybrid library and digital services? My answer to that question is no. But in answering no to the question we need to rethink the curricula at LIS-schools as well as what it means to be a practising librarian in a knowledge society.

In contradistinction from many other cases the RSLIS has been kept alive as an independent governmentally funded institution. With a national monopoly the school is a big LIS-school compared internationally, even though it is the smallest Danish university with its 145 full-time staff-members and about 1,000 students. The RSLIS offers bachelor, masters and PhD programmes exclusively in the field of LIS. In other words it is possible for the students to study and specialize solely inside the field of LIS during 8 years. There are terms with elective subjects and problem based projects but there are still a number of compulsory courses, approximately half of the courses, at both the under graduate and graduate level.

This paper tries to present reflections behind the construction of a curriculum aiming at keeping the L-word alive, the L and IS in LIS together, to maintain a professional identity and establish a common LIS identity amongst staff-members at the LIS-school as an academic school. The paper argues that this is possible by following a didactical model where all courses and disciplines are focusing on a mutual and underlying core area, knowledge organization, the unique area of selective excellence where only librarians and LIS-school staff-members rule. It means that even elective subjects have or ought to have – and this is not easy for the staff-members – this core area as a focus area underlying all activities in education and research.

The didactical approach
The didactical approach in this paper is well known and traditional to many educators. In Denmark and the other Scandinavian countries this approach goes back to educational discussions in the sixties and seventies. It is inspired by a combination of American (Bruner 1960[3], Bruner 1966[4]) and in Europe primarily the more humanity influenced German educational thinking (Klafki 1970[5]). Key concepts characterizing the American approach are science-centered curriculum development and the principle of spiral organization, the organizing principles around which curriculum is built so that "a curriculum as it develops should revisit (…) basic ideas repeatedly, building upon them until the

student has grasped the full formal apparatus that goes with them" (Bruner 1960[6]). According to Bruner learning is an active process in which learners construct new ideas or concepts based upon their current knowledge and the task of the instructor is therefore to translate knowledge to be learned into a level and format appropriate to the learners' current state of understanding. Organizing the curriculum in a spiral manner imply that the students continually build upon what they have already learned. Bruner also proposes education to be organized so that what is learned can more easily be transferred to related ideas or phenomena. He describes two levels of transferability, "specific transfer" with applicability to tasks that are very close to those originally learned, and "nonspecific transfer" based on a deeper and more thorough understanding which is "…the heart of the educational process - the continual broadening and deepening of knowledge in terms of basic and general ideas" (Bruner 1960[7]).

As a parallel to the American development and approximately at the same time the educational discussion in the Scandinavian countries were very much influenced or even dominated by the development of educational theory in Germany, not least the thinking of Wolgang Klafki who developed the concepts of categorial education and deepened the understanding of exemplary education (Klafki 1970[8]). According to this theory the didactical challenge consists of finding the central or most useful categories or concepts in a subject at the one side and on the other side to find educational themes functioning for the students as evident examples on the chosen categories. The point is that the students recognise the categories and concepts through their intellectual work with exemplary examples of the application of the categories and concepts - exemplary education.

Bruner (1996[9]) and Klafki (1991[10]) have both expanded and broadened their constructivist and critical-constructivist theories and perspectives on the basis of their original concepts and positions.

Following the thinking about exemplary education, it seems necessary to define on the one hand the most essential or basic theoretical positions, categories, methods and concepts and on the other hand to find suitable cases in which the students can reflect the theories and concepts, when developing a LIS-school curriculum. The spiral organization means that the curriculum ensures repeated revisiting of basic theories and concepts as a steady intellectual progression by the students.

According to this didactical approach it seems important to define core areas or maybe only one core area in the field of LIS. Not all disciplines or elements of content have the same theoretical and practical power. Not all activities in a library have central and equal importance. It seems obvious when constructing the LIS-curriculum to recognize and revitalise the unique power of librarianship, the field of content where librarians are "second to none" and to admit our historical roots even if we don't like the L-word. The L-word stands for much more than the traditional library building. Behind the L-word is a unique way of thinking coherently about huge amounts of information needed more than ever in the knowledge society. The case of Denmark may illustrate this. In Denmark librarians' salaries are the same as other academics and the unemployment ratio is low compared to that of the average of other academics. Between a forth and half of the graduates find jobs in the private and public sectors outside the traditional labour market for librarians. They are needed all over the country and there is a growing awareness of the unique qualifications of librarians due to their unique competences, knowledge organization and information retrieval.

The profession-school and the curriculum
The transformation of the different Scandinavian LIS-schools into research based academic educations at university level has taken place by and large in the same period and in the same manner. But of course there are differences. As mentioned, there is only one school in Denmark, RSLIS. Apart from the big old LIS-schools in Oslo in Norway and Borås in Sweden a few other schools have been established as integrated studies into the academic structures at universities in Norway and Sweden. They are typically located far away from the old schools. The new schools are established as smaller departments often and naturally with a narrower curriculum.

During many years there have been close relationships between the Scandinavian LIS-schools with common meetings, workshops and seminars where the transformation process has been discussed as well, occasionally sponsored by NORDINFO, an organization under the Nordic Council of Ministers.

Ragnar Audunson (2002[11]) characterises the traditional Scandinavian LIS-schools by their close links to the library profession offering typically 2-4 years comprehensive programmes, consisting of all subjects deemed necessary to run a library, from knowledge organization via retrieval and literary subjects to management and budgeting etc. Audunson illustrates the close links to the library profession by the fact that the Norwegian School of Library and Information Science not until the early 1990s ceased to present a report at the biannual meetings of the Norwegian Library Association (Audunson 2002[12]). It is thought provoking against a background of this statement that RSLIS is still reporting to the Danish Library Associations journal[13] once a year as well as the profession being strongly represented in the Education Council at RSLIS.

Figure 1. A model of the content of a profession-school and the relation to practise.
The school has developed from a vocational basis. The subjects taught at the school are
derived directly from the functions and practical skills in the library. The librarian is the
complete librarian mastering a mix of subjects. Note that the figure is a model and that the
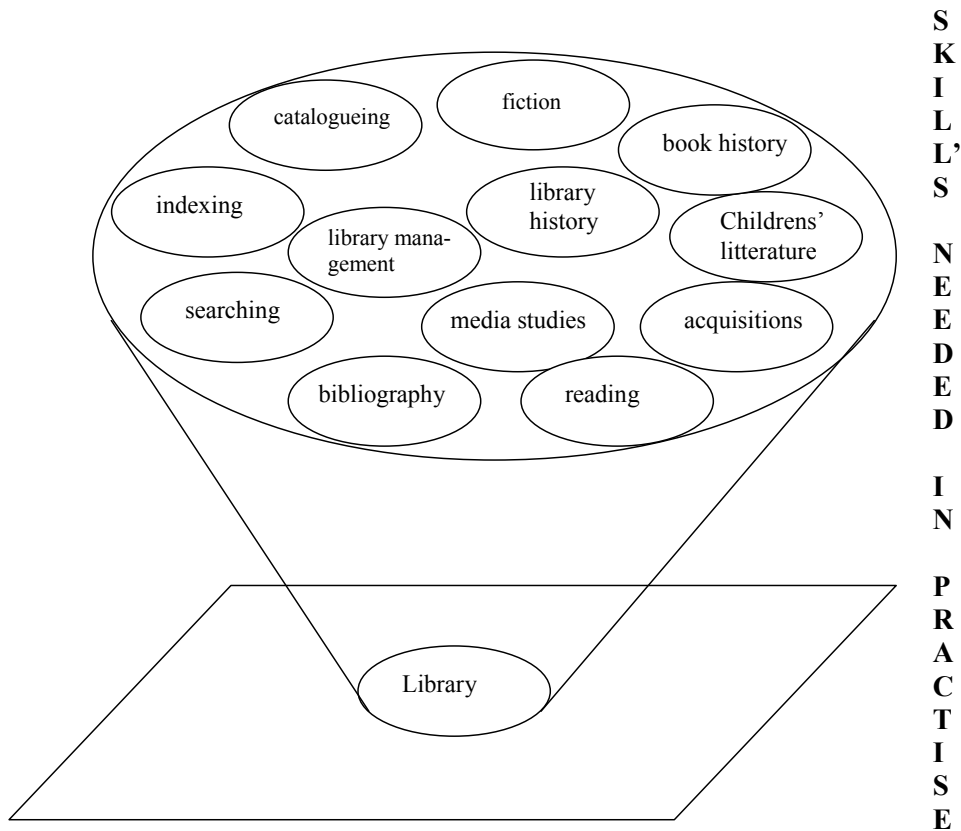*mentioned subjects are examples.*

Figure 1 is an attempt to illustrate the profession-school. Note that the figure is a model, i.e. a generalisation, and not a specific professional LIS school in reality. Note also that the figure as a model proposes skills that may differ as to where and when the model is used.

The close relationship between libraries and the LIS-schools means that the number of subject fields and their content depend directly on the need of the libraries.

The subjects are normally all of the same standing and intellectual level.

Due to the vocational orientation of the profession-schools it is easy to find suitable cases in which the students can reflect methods and concepts when developing a LIS-school curriculum. In other

words the education is exemplary in a very direct way and the transferability is characterized by Bruners concept specific-transfer. In the profession-school the curriculum may be organised according to the principle of spiral organization, but it turns out to be a short spiral indeed leading in best cases to an artistic mastering of practical skills but not to a deep theoretical understanding and perspective on what is lying behind the practical skills.

The professional identity developed at the profession-school is strong. It is formed by integration of all the equal subjects in the heads of the students. But as opposed to the librarians' strong professional identities the staff-members at the LIS profession-school seem to have very different professional identities. This is, among other things, caused by the lack of focus in the model. In the real world it is very often caused by the lack of commitment to a common focus. And of course it depends on the different subjects and the staff-members' individual educational background. The professional identity of for example a LIS-school teacher in literature with a background in humanities and with focus on cultural mediation of libraries appears to differ quite a lot from the science-oriented identity in the field of information retrieval. Mutual intellectual infighting amongst the staff-members about whose subject is the most important are neither unknown nor uncommon. In many ways such discussions stem from the didactical construction behind the curriculum and are therefore just as natural and understandable as they are often unprofitable. This was at least the case at the RSLIS years ago.

The strength of the profession-school is of course the close relationship to the profession, the practical skills, to the development of libraries and to the fact that the students are at once able to fill out their job when graduated.

Amongst the weaknesses are the tendency that the students through their education typically will lack the immediate ability to participate in transformation and innovation in the libraries and the other parts of a labour market under rapid change in the knowledge society.

The academic school and the curriculum
In the article "An Outsider's Thoughts on the Education of Librarians" Ed Quattrocchi, in the words of the editor, discovers some challenging but disturbing trends. As part of his conclusion he states: "These questions naturally lead to the question of whether there ought to be a core curriculum in the field of library and information science" (Quattrocchi 1999[14]). This is an old, well-known and very much discussed question. Looking back in library history and library education history and to the huge "battlefield" of discussions about this theme it seems, from a more pragmatic angel, never the less obvious that there is a core in the field of library and information science. The user-oriented organization of knowledge and the close connection of the field to information seeking behaviour and retrieval seem to be common and unique features of LIS through history as well as the steady and rapid changing of information technology. At least seen from a pragmatic and LIS-didactical point of view like this the subject of knowledge organization appears to be the most relevant subject field to point out as a core field in LIS.

The stating of knowledge organization (and connected to that may be information seeking and retrieval) as the core area of LIS stems, as mentioned, from a pragmatic point of view based on practising librarians' common ways of thinking through hundreds of years. It is the continuous

development of that way of thinking that still constitutes the professional identity. What happened in heads of artistic librarians when practising librarianship, often by a craftsman's intuition, needed to be transformed to common knowledge and forced the divorce between the craftsman's hand and head; a similar process as the development of the blacksmith to engineer, the hairdresser to surgeon etc. – the appearance of many sciences. Independent of technology librarians' basic ways of reflections and the task we face are of the same kind. Therefore it seems like throwing out the baby with the bathwater to remove the L-word from LIS. If the public opinion is that prestige of librarians appears to be dusty and old-fashioned the solution is not to remove the L-word but to face the real problem and more likely to prove the indispensability of librarian skills.

Birger Hjørland points out that knowledge organization is a wide interdisciplinary field broader than LIS and that "the special focus of LIS is the documented knowledge produced by human beings in some kind of documents of potential use to other human beings. Light from the stars is not information for the LIS-community, but astronomical information as produced and used by astronomers is. Such distinction may seem subtle, but is important in order to construct a firm theoretical base of knowledge organization" (Hjørland 2003[15]).

This is the didactical basic consideration underlying the construction of figure 2. Note that also this figure is a model as a basis for didactical considerations and that the mentioned subject fields are examples.

Following the model it is easy to construct the LIS-curriculum according to a spiral organization where the students revisit the basic theories, concepts and scientific methods to a gradually higher and broader level of intellectual understanding, the educational progression. This is also the basis for establishing the effect of non-specific transfer. At a higher theoretical level it is possible to analyse a practical problem in a broader perspective and to find coherence between separated phenomena as for example between the many new media in libraries and find new solutions. This is what is strongly needed in the hybrid libraries of the knowledge society. In that sense the academic LIS-school seems to be closer to the current needs of the professional librarian working in a hybrid library. And this is indeed what it needed on the labour market outside the libraries when organizing and selecting the internal and external explosion of information, for instance in the case of e-government.

In the model, the arrows pointing towards the core field illustrate the different theoretical angels, science, social science, and humanities from which knowledge organization can be analysed.

The libraries typically need all the subjects inside the greater circle of the model. The development of libraries is depending, more or less, on the basic and applied research forming an appropriate research-based background for future staff-members as well as more directly on the results of the research activities. This is illustrated in the model by the lines from the libraries to the periphery of the greater circle. Firms and organizations outside the traditional labour market normally demand theoretical skills from the core area only, knowledge organization *and* information retrieval. This is at least the experience from Denmark. It is illustrated in the model by the lines from "firm" to the outer circle of the core area.

Figure 2. A model of an Academic LIS-school
The model shows the academic LIS-school still as a profession-oriented school. All disciplines and subjects are focussing on knowledge-organization. The education is research-based. Most research inside LIS implements basic theories from disciplines outside LIS. This is applied research. Basic research takes place in the core domain, knowledge organization (and information retrieval).
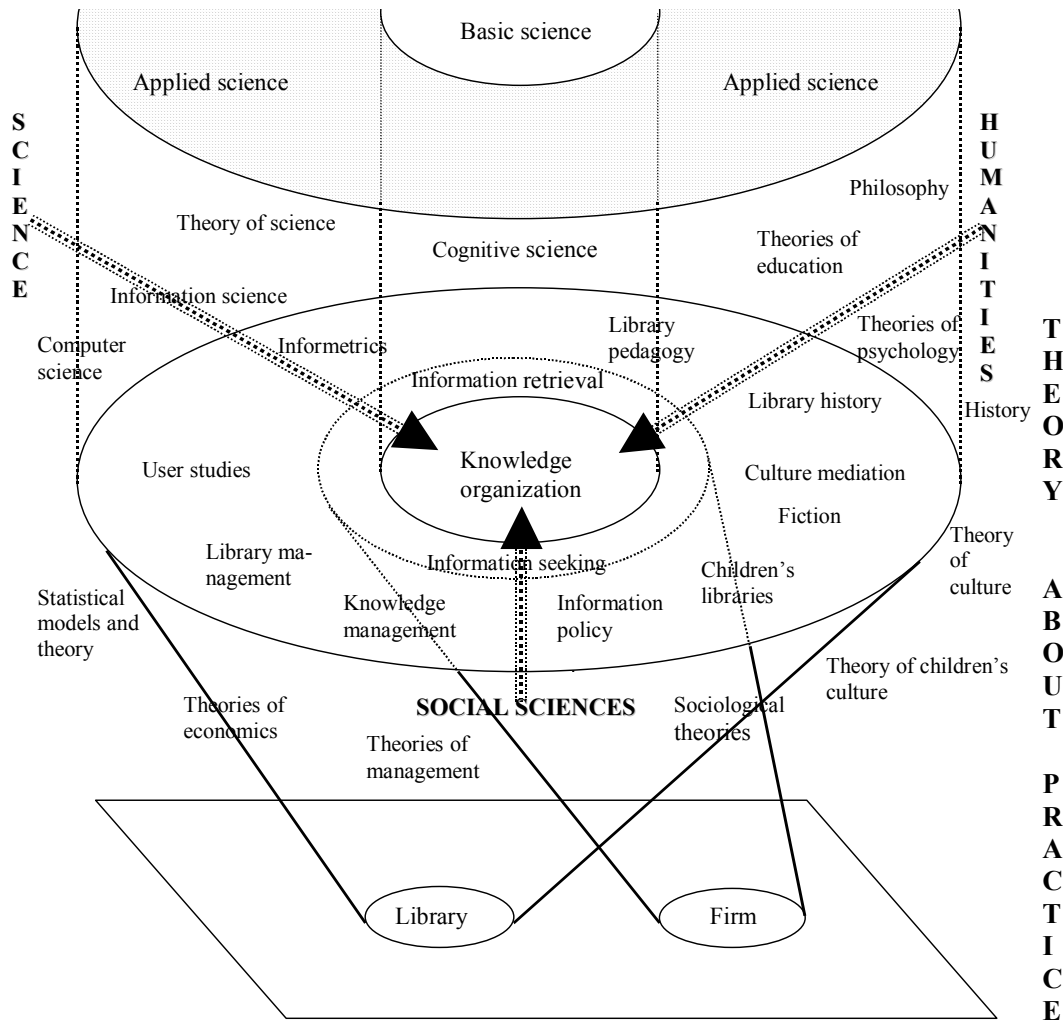
Realizing the exemplary and categorial education at first seems to be a little more difficult than in the case of the profession-school, the good example is self-evident in the profession-school. As mentioned, the didactical challenge consists of finding central categories, theories or concepts in a subject on the one hand and on the other hand to find educational themes functioning for the students as evident examples on the chosen categories. In the academic LIS-school such educational themes might be purely theoretical problems, very carefully selected, on the basis of what is learned at an

earlier stage. And of course the themes might stem from essential real world problems, the more the better. An increasing number of practical problems today need highly sophisticated theoretical solutions. Therefore it is essential that the academic school maintain respect for and very close connections to the profession and the practical world. It is, so to speak, impossible to develop the school to a too high academic level, but the point is, that it has to be relevant. This is illustrated in the model by the fact that the LIS-school is "theory about practice", not theory for the sake of theory, and that definition of the limits of the content of the school depends on the current and potential need in practise. In the model the academic LIS-school is still a kind of a profession-school, but a school at a higher theoretical level. By saying potential need it means, according to the model, that there is a need for expanded research - not least basic research in the core field of knowledge organization.

In the academic LIS-school, derived from the model, the staff-members will gradually develop a common and more coherent corporate culture due to the mutual focus core field of content. Of course, this is in practise not as easy as in a didactical model, but at the RSLIS where the model is part of the commonly agreed vision, there are positive tendencies in that direction. It means, for instance, that some researchers with a scholarly basis in fiction have altered their main focus from interpretation of novels and authors to knowledge organization of fiction and find (digital) ways to make it easier for the user to find thrilling and relevant literature. In this process the researchers use their scholarly background and basic theories from outside in applied research projects on knowledge organization and retrieval of fiction.

The strength of the academic LIS-school illustrated in figure 2 is that the students gain theoretical skills and coherent understanding underlying current practise and due to the categorial education and non-specific transfer effect are able to handle future challenges in a analytical and creative way.

Among the weaknesses of the academic LIS-school is the danger that the change from the profession-school to the academic level causes the well-known problem of the school loosing contact with reality and that research projects and educational subjects become purely castles in the air without any kind of relevans. To prevent this potential weakness the model stresses a core area and the (still) strong connection to the world of practise.

Conclusion
It is a point of this paper not to mention the technological and digital development as a determining theme behind the didactic considerations. Naturally the technological development is an essential and overwhelming factor in the development of societies and libraries as well as of the LIS. But there has been a tendency to focus on technology and forget the basic theoretical content of LIS. It seems to be to substitute goals by means. Instead of focussing on what is changing it is more relevant to concentrate on the common and long lasting theoretical fundamental considerations through history and through different societal phenomena when considering the basic behind didactical reflections. LIS is not computer science; LIS uses computer science as an effective means. And of course the digital development as well as other features in the development of society ought to be embedded in all subject fields in a LIS curriculum. The way of presenting the theoretical core problem and basic content characterising research and education is by and large still the same, but the form, the technology and the depth of theoretical understanding has changed and is changing rapidly.

Dependent on the societal situation of the LIS-schools and the libraries it might be helpful to reflect the positions and differences between the two described models before constructing a LIS-school curriculum. In the real and very different world of libraries and LIS-schools the didactical decisions on curriculum will be at least a mix of the two models. The advantage using didactic models as for instance the two models described in this paper is that the models force the LIS-school to make the considerations explicit and to give broader reasons for the curriculum.

With the danger of offending against the main points of Bruner and Klafki and thus making the didactical considerations too one-sided and instrumental with far too little attention to education as an active process in which learners construct new ideas or concepts based upon their current knowledge, the below mentioned diagram may, never the less, serve as a useful frame-work for reflections on the curriculum of LIS-schools.

	Profession-school	Academic school
Kind of curriculum	Vocational-centered	Science-centered
Kind of progression	Experience-expansion to higher effectiveness	Spiral organization to higher intellectual levels
Kind of transfer	Specific transfer	Non-specific transfer
Kind of categorial education	Practice-related	Theory-related
Kind of professional skill	Artistic? professional workmanship	Creative analyst

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Notes

[1] Audunson, R. Nordlie, R. & Spangen,I. C.
The Complete Librarian – an Outdated Species? LIS – between Profession and Discipline
http://www.jbi.hio.no/bibin/euclid/full%20paper/ragnar.htm. Oslo, 2002. - 9 p.

[2] Wilson, T.D.
Redesigning the university library in the digital age. Journal of Documentation 54, 1, p. 15-27.

[3] Bruner, Jerome S.
The process of education. Cambridge, Mass.: Harvard University Press, 1960. - 97 p.

[4] Bruner, Jerome S.
Toward a theory of instruction. Cambridge, Mass. : Belknap, 1966. - 176 p.

[5] Klafki, Wolfgang
Studien zur Bildungstheorie und Didaktik. Weinheim : Beltz, 1970. - 153 s.

[6] Bruner 1960, p. 13

[7] Ibid. p. 17

[8] Op.cit.

[9] Bruner, Jerome S.
The Culture of Education. Cambridge: Harvard University Press, 1996.

[10] Klafki, Wolfgang

Neue Studien zur Bildungstheorie und Didaktik: zeitgemässe Allgemeinbildung und kritisch-konstruktive Didaktik. - 2. erw. Aufl.. - Weinheim : Beltz Verlag, 1991.

[11] Audunson, Ragnar
Competing with Maurice Green on LiS-education. In: Global Issues in 21st Century Research Librarianship. 25th Anniversary Publication. Helsinki 2002

[12] Ibid. p. 356

[13] Danmarks Biblioteker. Danmarks Biblioteksforening, København.

[14] Quattrocchi, Ed.
 An Outsider's Thoughts on the Education of Libraries. – In: American Libraries. April 1999.

[15] Hjørland, Birger. Fundamentals of knowledge organization. – In: Tendecias de investigacíon en organización del conocimiento. Salamanca, 2003. – p. 83-116, p. 85.