ASSOCIATION OF LIBRARIES OF CZECH UNIVERSITIES
Information Education and Information Literacy Working Group IVIG

INFORMATION EDUCATION STRATEGY AT UNIVERSITIES IN THE CZECH REPUBLIC

Reference Document of the Association of Libraries of Czech Universities

PRAGUE
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INTRODUCTION

To support the activities of university libraries in the area of information education[1], to contribute to the development of information literacy of students, to create a basis for library staff who are beginning with information education, to make it easier for them to create strategies and cooperate with educators when implementing information education into university study programmes. All of the above are objectives of the Information Education and Information Literacy Working Group (hereinafter "IVIG"), which has worked within the Association of Libraries of Czech Universities since 2002.

A few years ago members of IVIG planned to prepare a model strategy for the development of information education and information literacy at universities. However, it was necessary to build it on the basis of clearly defined concepts in the field of information literacy and realistic objectives of information education. For this reason they initially started preparing theoretical starting points and made an analysis of the current situation at universities. They created a model of information literacy according to international definitions, formulated standards of an information-literate university student and prepared and implemented a pilot survey project on the information literacy level of students at eight universities and faculties. They created this strategy on these bases plus an analysis of the level abroad and on their own practical experiences. A model action plan for the preparation of the information education project is attached as an appendix.

The strategy is aimed at academic officials, university educators and university librarians and is intended to serve as an explanation of the significance of information literacy, reasons for implementing information education into curricula, a description of priorities and relevant recommendations and as a guide for preparing projects supporting information literacy.

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[1] A Definition of the Term Information Education see DOMBROVSKÁ, Michaela; LANDOVÁ, Hana; TICHÁ, Ludmila. (2004). Information Literacy: Theory and Practice in the Czech Republic. *National Library*. Vol. 15, no. 1, p. 7-19. Also available at: http://full.nkp.cz/nkkr/pdf/0401/0401007.pdf

1 THE SIGNIFICANCE AND OBJECTIVES OF INFORMATION EDUCATION

The growing significance of information in current society and the development of tools, which allow its distribution lead to increasing demands on people. Emphasis is mainly placed on orienting in accessible information sources and on the knowledge and skills connected not only with searching for and evaluating information but also with its application in various practical situations. An area which cannot be neglected is respecting the author's rights and the ethical treatment of information. This invokes plentiful discussion about the need for change in our educational system, including university study programmes. Universities are at the end of the educational chain which contributes to lifelong learning, orienting in the ever-growing amount of knowledge and information, their evaluation and effective use.

The existing system of education at universities is ceasing to fulfil the demands of study and subsequent professional or scientific activities and also the demands of everyday life in society. Institutions providing higher education should create conditions for qualified solutions to students' problems during their studies and in their personal lives and to expedite their value on the career market. They should prepare students for the world of sharing information, fast changes and overall connections. This requires a change in the style of education and use of methods based on the utilization of information sources.

The integration of diverse forms of information education into university studies is completely in accordance with trends, which are coming into this sphere of the educational system and are becoming one of the most important criteria for evaluating the quality of individual universities. The question of accreditation of new fields of study and accreditation renewal of hitherto existing ones is also connected with this. The curriculum of each field of study should encompass the widest range of components possible, which will lead to enhancement of the students' information literacy.

Information education is a long-term process which leads to an increased level of information literacy and which should penetrate the whole educational system – from primary schools to universities. Its individual levels should be smoothly interlinked. Therefore, this strategy is based, among other things, on framework educational programmes, which are established for primary and secondary schools[2]. A significant part of this strategy is also Information Literacy Standards of An University Students[3] as a document which characterises the final target to which the process of information education is directed.

[2] Details in part 2.2.2
[3] See Appendix 1

2 STARTING POINTS

2.1 Information literacy as a set of key competencies in information society

Literacy means, in a figurative sense, a set of key competencies, or particular knowledge or skills. Functional literacy is the ability to use such knowledge and skills. Therefore information literacy places an emphasis on the context of the development of information and communication technology and the significance of orientation in the information world arising from this.

General consistency in the content of information literacy concepts is important for development in the information education area. The starting point for the following model was the definition given in the IALS/SIALS[4] international project where functional information literacy was defined as the ability to actively participate in the information world, and furthermore classified into three components: *prose literacy* as the ability to locate and understand information from a text, *document literacy* as the ability to search for and use precisely defined information, and *numerical literacy* as the ability to work with numbers and graphs. Furthermore, we consider *linguistic literacy* as a significant component: the ability to understand and be understood in the mother tongue and a foreign language. Literacy in the sphere of information and communication technology (hereinafter referred to as "ICT literacy") is linked to functional literacy as the ability to work with a computer (and other tools) and networks (particularly the internet). Whereas ICT literacy always supports the other components, by itself it does not increase the informational gain of the individual. Information literacy is therefore functional literacy in information society.

Fig 1: Model of information literacy[5]
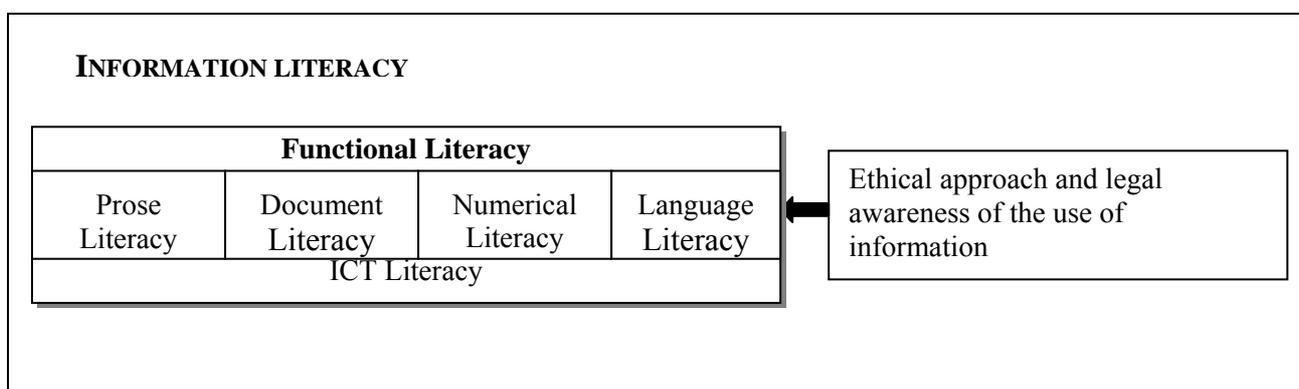
The development of information literacy therefore means starting from recommendations following from the survey on functional literacy: transfer of emphasis from facts to general competences, development of communication skills and stress on teaching of foreign languages, particularly English. In addition, however, this also means the development of

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[4] Information on: http://www.statcan.ca/english/freepub/89-588-XIE/about.htm
[5] DOMBROVSKÁ, Michaela; LANDOVÁ, Hana; TICHÁ, Ludmila. (2004). Information Literacy: Theory and Practice in the Czech Republic. *National Library*. Vol. 15, no. 1, p. 7-19. Also available at: http://full.nkp.cz/nkkr/pdf/0401/0401007.pdf

abilities to work with information and communication technologies, which is an important condition for information society.

From the experience of librarians and people working with information one more aspect of work with information must be emphasized, which goes beyond just information literacy: an ethical approach to and knowledge of legal aspects connected with information, i.e. awareness of the fact that sources used must be quoted and used in accordance with authors' rights. This principle was added to the abovementioned model of information literacy in 2006.

2.2 Key players and current public policy documents in the information literacy field

2.2.1 Key players

From the point of view of public policy experience in information literacy, it is necessary to point out the key players who have participated in the creation and implementation of relevant policies or who are their users.

Concerned are the following institutions and individuals:

a) **Players – institutions**

- **The Ministry of Education, Youth and Sports of the Czech Republic**[6] is the initiator and implementor of the National Programme of the Development of Education in the Czech Republic, which is the primary policy of the Czech Republic in the area of education. It is the guarantor of curricular policy and issues programmes for the development of lifelong learning.
- **The Ministry of Culture of the Czech Republic**[7] is concerned with the situation of the operation of libraries which provide public library and information services. It deals with questions related to relevant legislation (e.g. it submits the Library Act), library records and their development (financial support programmes). It issues programmes for the further education of librarians.
- **The Ministry of Labour and Social Affairs of the Czech Republic**[8] determines policy on employment and takes part in the organization of re-qualification courses and lifelong learning.
- **Educational institutions –** primarily schools (primary, secondary, universities and other) and institutions which offer education at all levels, including lifelong learning, and can contribute to the development of information literacy.
- **Libraries** serve as a gateway to information for citizens, such as information centres, organizing courses for the development of information literacy, courses in working with information, providing their visitors with access to information sources and to the internet.
- **Professional organizations** – particularly the Association of Libraries of Czech Universities[9] (and its Information Education and Information Literacy Working Group), Association of Library and Information Professionals of the Czech Republic[10] (and its section the "School Libraries Club"), the Czech Rectors Conference and others. They can provide methodological and financial support.

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[6] See http://www.msmt.cz/
[7] See http://www.mkcr.cz/
[8] See http://www.mpsv.cz/
[9] See http://www.akvs.cz/
[10] See http://skip.nkp.cz/

- **Non-government non-profit organizations** – the development of civil society and the development of information literacy are narrowly connected. An information literate person can actively take part in the life in information society.
- **Private business companies** as employers and at the same time institutions which can influence the creation of national policy.
- **The media** inform about the situation in information literacy and have a strong influence on popularizing information education.

b) Players – individuals

- **Creators of relevant policies** (mainly policies on information and education) – politicians, civil servants, experts. They create the conditions for the practice of information education and support for the development of information literacy.
- **Educators** bring curricula and relevant policies into practice on all levels of educational institutions.
- **Librarians** contribute to the development of information literacy of library users, and create, implement and promote information education projects.
- **Users** – mainly students, participants in lifelong learning, users with specific needs (foreign students, health impaired, etc). They are the target groups of information education projects.

2.2.2 Current public policy documents

The following points are key public policy documents in the field of information literacy:

- **Strategy for lifelong learning in the Czech Republic[11] (2007):** the document defines the basic terms – from the point of view of the Czech Republic and the European Union. It analyses the current situation in the area of lifelong learning in the Czech Republic, defines priorities for further development and brings up suggestions for their treatment.
- **Strategy for the development of libraries in the Czech Republic for 2004-2010[12]** contains a part connected with the mission of libraries:
  Libraries mainly take part in:
  - lifelong learning, support for independent decision-making and spiritual development and satisfying the cultural needs of all citizens without difference,
  - creation of an infrastructure for the area of education, research and development.
  Partial objectives according to the authors of the strategy are:
  - to increase the role of libraries in the process of lifelong learning,
  - to support the accessibility of services in libraries and means for educational support on the internet,
  - to create a multimedia, multi-purpose workplace in libraries which allow access to training and equipment for work with digital documents, and also to provide access to these services for residents in small villages,
  - to create conditions for providing information training for users to increase their functional literacy and hence ability to effectively search for and use information sources.
- **Framework Educational Programme:** the Framework Educational Programme for primary education 2007[13] and similarly the Framework Educational Programme for

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[11] Accessible at: http://www.msmt.cz/eu/strategie-celozivotniho-uceni-cr-1
[12] Accessible at: http://knihovnam.nkp.cz/docs/Koncepce04_10.doc

Secondary Schools 2007[14] already feature the adoption of strategies for learning, motivation for lifelong learning, initiation for creative thinking, logical thinking, problem solving and ability to cooperate The same key competencies are identical with those for university education. The link is therefore clear but it is necessary to establish levels that the students of primary schools, secondary schools and subsequently universities should achieve. The strategy refers to this link but only practical experience and cooperation with secondary schools will allow to tap the abilities and skills of students in the relevant spheres, in individual fields and on a higher level.

- **Updating the long-term intentions of educational and scientific, research, developmental, artistic and other creative activities for universities**[15]: the fundamental document of the Ministry of Education, Youth, and Sports for universities. Version for 2008 includes the following points relevant for information literacy development:

  1) An increase in the quality and competitiveness of universities in education and research leading to innovation; **2)** The development and completion of study programmes; **3)** Lifelong learning; **4)** Distance and combined forms of education and **5)** The development of knowledge and professionalism in managing universities.

Activities in information literacy in the Czech Republic are inspired by foreign projects and initiatives, whether they are regional or international, or if they are undertaken within the framework of large international organizations (see Appendix 2).

2.3 The level of information literacy of university students

2.3.1 Characteristics of the situation at universities

Information education programmes at universities in the Czech Republic have been developing quickly in recent years – they are becoming more detailed, more varied and are directed towards more target groups. It is not just about an introductory lecture to first-year students any more. Many schools are also trying to work systematically with students in the higher years, particularly with those who are preparing their bachelor or master's thesis. The traditional target group are doctoral students. Target groups which have been up till now deprived of access to information education are mainly disabled students and foreign students studying in another language than Czech.

The providers of series of lectures and comprehensive courses in information education are most commonly libraries at individual universities (faculties). Cases of effective cooperation between librarians and educators along with providing activities for information education are still quite rare. The education of users is still gaining a more important position in the structure of university library services; this means, however, also demands for staff, technical and financial resources for these activities. It is possible to make use of grants (Fund for University Development; Ministry of Education, Youth, and Sports Development Projects) for initiating or further developing information education programmes. Cooperation between

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[13] Accessible at: http://www.vuppraha.cz/soubory/RVPZV_2007-07.pdf
[14] Accessible at: http://www.vuppraha.cz/soubory/RVPG-2007-07_final.pdf
[15] Updated for 2008 accessible at:
http://www.msmt.cz/uploads/soubory/vysoke_skoly/07.04.19._Aktualizace_DZ_2008_5_M.doc

universities and the exchange of experiences between universities is also developing – mainly on the platform of the Information Education and Information Literacy Working Group under the auspices of the Association of Libraries of Czech Universities[16].

Barriers

On the basis of the survey mentioned and long-term monitoring of the environment at Czech universities, and apart from positive trends, barriers blocking the way to the further development of information literacy have also been identified:

- Incomprehension of the basic terms in the whole range and focusing mainly on ICT;
- Underrating the significance of including information education into educational curricula on the part of the management. The lack of close cooperation with educators, which as a result leads to the fact that the bearers and propagators of information literacy at universities are still predominantly librarians;
- Underestimating the ethical approach to the use of information and its resulting consequences – plagiarism and breaching authors' rights;
- Insufficient emphasis on the significance of lifelong learning.

Trends

A questionnaire survey was undertaken in 2000, 2003 and 2006 mapping the development of activity in information education at Czech public universities. A comparison of the results in the individual surveys shows positive development comparable with trends at foreign universities. The following can be considered as particularly significant:

- Gradual implementation of information education components into teaching;
- Implementation of information literacy in universities' long-term plans;
- An apparent effort for creating strategies for information literacy development;
- An increasing emphasis on the promotion of information education;
- The creation of new employment positions for professionals in library educational areas.

2.3.2 A pilot survey of the level of information literacy of university students in the Czech Republic [17]

The Survey on the level of information literacy of university students carried out in 2004 and 2005 at selected universities, and aimed at library services, showed that in contrast with standards of university students' information literacy, which the survey expresses as an ideal situation, i.e. by 100 percentage marks, the average Czech student attains only 53 percentage marks., The desired level is, however, at least 70 percentage marks.[18]. Only students who planned to end their studies with a PhD degree and who, during their studies, completed some type of a course focused on working with information, have achieved this result.

It generally applies that information literacy increases with the level of study (to which the students plan to complete their studies). Students who have completed a course focused on working with information achieved better results. 23% of the respondents from all the faculties had completed such a course and almost ¾ of those students considered it important.

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[16] Information accessible at: http://knihovny.cvut.cz/ivig/
[17] Results of the study have been published– see [Dombrovská, 2006] in Appendix 4.
[18] Details on the study's hypothesis and points classification – see [Dombrovská, 2006] in Appendix 4.

Students on a technical path have far higher numerical literacy in comparison with students in the humanities field. On the other hand, ICT literacy is more or less equal for students of all faculties. It seems that for overall information literacy the difference between male and female students does not play a significant role; the difference appears in the individual components (ICT and numerical literacy is higher in males and prose literacy in females).

A pilot survey showed the correlation between individual information literacy components. ICT literacy forms the basis for other components of information literacy (those who have higher ICT literacy are also better in other components). ICT is a significant tool for working with information. In addition, the survey showed that ICT literacy is not a problem for university students. We observed low levels mainly in prose and document literacy (which also correlate with linguistic literacy).

For the players in information education this means that they need to concentrate mainly on active work with documents and sources of information, in both their own language and a foreign language. The survey demonstrated a low level of information literacy of university students and showed that courses focused on working with information or inserting principles of working with information into professional courses are one of the solutions for enhancement of the overall level of information literacy.

3 PRIORITIES

Priorities in the field of information education at universities are built on the basis of barriers identified during the pilot survey and represent solutions to the most pressing problems in information literacy.

Priority 1. Detailed concept of working with information

Apart from a basic competence connected with dealing with information, from searching to examining and finally using it in context, working with information also includes ethical and legal considerations. Skills connected with assessment of the information obtained and respecting authors' rights and referencing ethics belong to the fundamentals of successful university study and subsequently lifelong education. The motivation of students to a responsible and ethical approach to working with information leads to improved quality in different outputs of their studies (e.g. term papers, bachelor and master's theses). Apart from this it also forms a key part of the prevention of undesirable features, such as plagiarism and breach of the author's rights. The legal aspects of accessing sources of information should also not be neglected. Students should be introduced to the basic rules of licence agreements which make them realize the ownership connected with the information they use during their studies.

Priority 2. The implementation of components of information education into curricula at universities on the basis of cooperation between libraries and educators

Students should gain knowledge and skills connected with information literacy throughout their university studies. Components of information education (specialised seminars, lectures or courses) can be integrated into particular study programmes so that students are able to utilize them during their studies before graduation. However, the ideal case would be for information education to be embedded directly into all professional courses so that from the beginning students can consider working with information as an obvious and integral part not only of their study but also in other professional work.
Most recent findings confirm that knowledge and skills in the field of working with information are accepted better and for a longer period of time when they are fixed to real practical tasks and students are motivated to use them in their everyday study requirements.
The human factor plays a significant role in the implementation of information education components into teaching. An educator who knows his or her field and its inherent laws, who is aware of the importance of information literacy and the influence of ICT, can produce information literate students by himself and can also advocate changes in the method of teaching. A case considered to be ideal is the cooperation of educators with specialists in a given field; experts who work with students in an academic environment – and librarians as specialists in information sources and working with them. This cooperation makes it possible to integrate components of information education directly into teaching, which is considered to be most effective.

Priority 3. Feedback and the influence of information education on library services

A well prepared information education programme will reflect on the use of services offered by libraries of the given university in a short time period. From research undertaken abroad in recent years it follows that students' education (and educators) in the field of work with information has, as a consequence, induced a change on the nature of services provided. The

structure reference and literature search inquiries changes – in general they reduce in number but a greater number of very complicated inquiries appeared which even students who had been through some form of information education could not cope with and which therefore required the assistance of an information specialist. The range of use of electronic information sources is growing and with it the number of requests for interlibrary loan services and electronic document delivery services. These requests are usually well specified since the students know which data the librarian needs for the search or ordering of the document and they also know where to find these data. Currently, librarians and information professionals focus more on personal contact with the user and devote attention to the development of advisory and consulting services. Attention must be paid to these changes, which are reflected by the developing system of information education, and they must be predicted and responded to by improving individual services both on a technical and personal level.

4 RECOMMENDATIONS

Implementing the following recommendations can be a significant way of increasing the level of information literacy, both generally and in individual institutions.

Recommendation 1. Implementation of information literacy standards of a university student[19]

In relation with the need to integrate components of information literacy into teaching at universities it is necessary to define the ideal level all players want the students to reach. This level represents the Information Literacy Standards of a University Student. This is a reference document of the Association of Libraries of Czech Universities, which is the result of cooperation between specialists, librarians and lecturers. The structures of the standards agree with the definition of information literacy described above and after relevant amendments they are ready for use on all educational levels. The Information Literacy Standards of a University Student are prepared for implementation into the profiles of graduates from individual fields of study.

Recommendation 2. Effective cooperation among the players

For reaching common objectives it is desirable for the key players to cooperate effectively. This concerns the agreement on the definition of information literacy, on the contents of standards of information literacy and the preparation of educational programmes. For raising information literacy it is important that the strategies accepted in individual, consecutive educational levels supplement each other and do not overlap. Cooperation between libraries and school management and educators, and feedback from students and professional organisations or employers is very important. Joint projects, training and seminars for the players, etc. are important for the spreading of good practice among universities.

Recommendation 3. Objective creation of educational projects

Every educational project should respect the needs or specific restrictions of the target group (depending on the type and form of study). For example, to distinguish between bachelor, master and doctoral studies, to accommodate the varying needs of combined or distance learning and satisfy the specific needs of certain groups. It is also essential to take into account the field of study and select appropriate examples, specific information sources, including field-specific terminology in a chosen foreign language. Apart from traditional forms of teaching (seminars, lectures, courses) it is also important to consider other forms of teaching: e-learning and blended learning[20].

Recommendation 4. Active promotion of information education

At the same time players engaged in creating educational projects should actively promote information education, especially within their own institutions. The aim is also to involve as many institutions as possible to cooperate and transfer information to the specialist and general public of the gains and synergic effects of information education. Appropriate forms of promotion are, for example, presentations to interested target groups, participation in conferences and writing professional and popularizing articles on the theme.

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[19] Information literacy standards of a university student – see Appendix 1.
[20] The suggested model action plan is part of Appendix 4.

<u>Recommendation 5.</u> Obtaining feedback through regular surveys of information literacy levels

To obtain feedback and attain comprehensive information it is necessary to conduct regular surveys on the level of information literacy. This includes national surveys – to compare individual institutions and their level – and surveys within the institution to allow for amendments and improvements of teaching. In order to be able to compare results over various years, various levels and various ranges it is desirable to keep the structure of the questionnaire as it was used in the pilot surveys.

CONCLUSION

The strategy text contains reasons for the significance of information literacy and the objectives of information education at universities. It presents the theoretical starting points and describes the status and level of university students' information literacy based on surveys. The core of the strategy is the definition of priorities and recommendations for the development of university students' information literacy. This part is mainly theoretical and strategic and serves as a basic frame for the promotion of and decision on information education.

Supplementary documents are intended for those who decide to work on information literacy programmes at their universities and under their own conditions: Information literacy standards of a university student, examples of good practice, results of the survey on information literacy at universities and namely the model action plan for the preparation of an information education project. The action plan is a model for universities' own strategy (in university libraries) and an example of the approaches for its creation and implementation.

We believe that this strategy will not be purely a summary of the current status in the field of information education, but, at the same time, will serve as a base for the creation of practical activities and steps for increasing the level of information literacy. University studies are an important period within lifelong learning and the preparation of students for practical life is decisive for their position in professional and personal life. Information education is a significant tool with which university educators and librarians contribute to an enhancement of the level of education of Czech citizens in the current information society.

The authors

List of appendices

Appendix 1 Information literacy standards of a university student
Appendix 2 Selected foreign initiatives in the field of information literacy
Appendix 3 Model action plan for preparing an information education project
Appendix 4 Article on a pilot survey of the level of information literacy of university students.

APPENDIX 1 Information literacy standards of a university student[21]

These standards, establishing knowledge, ability and skills of an information literate university student, concern only their studies and professional work in their field. In this sense an information literate university student:

1. is able to comprehend professional texts in their field of study, summarize the main ideas and write technical texts by himself utilizing knowledge from the information sources which are quoted with respect to authors' rights and according to principles of creating bibliographic references and citations;
2. knows and follows the key information sources in his/her field of study, can find relevant information on the basis of advanced methods of searching with respect to the rights and moral aspects of this activity and can organise and preserve information of various types and formats for further use in their professional work;
3. uses sources of numerical and technical information, finds and processes numerical and technical data and uses them in his/her work;
4. masters his/her native language and is able to use it orally and in writing, knows and uses the terminology of his/her area of study in his/her native and a foreign language, particularly English, to a level necessary for working with information sources and communicating within the community of the given field;
5. uses generally accessible information and communication technology necessary for searching, processing and presenting information (of various types and formats) pertaining to his/her studies and professional work;
6. is aware of the moral and legal aspects of using information and working with information in accordance with authors' ethics and authors' rights.

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[21] Association of Libraries of Czech Universities. (2007). *Information Literacy Standards of a University Student* [online]. Praha : Working group IVIG ALCU CR,[cit. 2008-02-14]. Accessible at: <http://knihovny.cvut.cz/ivig/standardy-student.html>.

APPENDIX 2 Selected foreign initiatives in the field of information literacy

Czech involvement in the field of information literacy follows foreign projects and initiatives – regional and international, in some cases within large international organizations. Initiatives of the following organizations are among the most significant ones:

- **UNESCO** (The United Nations Educational, Scientific and Cultural Organization): offers a range of projects aimed at the integration of information education components into curricula and study programmes on all levels and in all types of schools with an emphasis on the significance of information literacy for lifelong learning.
- **IFLA** (International Federation of Library Associations and Institutions): its *"Information literacy"* section endeavours to boost international cooperation in the development of information literacy in all types of libraries. The IFLA document Guidelines on Information Literacy for Lifelong Learning 2006[22] provides suggestions, principals and methods for working on information literacy programmes which are practicable with a minimum of adjustment in every library.
- **IAIL** (International Alliance for Information Literacy): the main objective of this initiative is the sharing of good practice and knowledge in the development of information literacy on an international level.
- **ANZIIL** (Australian and New Zealand Institute for Information Literacy): supports organisations, institutions and individuals who attempt to develop information literacy, particularly for incorporating information education components into the educational process.
- **ENIL** (European Network for Information Literacy): endeavours to invoke professional discussion on the theme of information literacy on a European level for the purpose of developing and improving information/knowledge companies in Europe.
- **NORDINFOLIT** (Nordic Forum for Information Literacy): is an association of experts in the field of information literacy in Scandinavia.
- **NFIL** (National Forum on Information Literacy): has been in operation in the USA since 1989 and brings together institutions and organisations (including foreign) which focus on improving the position of individuals within information society. Its main purpose is the development of information literacy.
- **EFIL** (European Forum for Information Literacy): the newest group in the European field of information literacy brings together professionals in education and librarianship. It is a platform for professional discussion and planning of continued development of support for information literacy.

Key documents also exist which are results of meetings between experts on an international level and which address the main trends in information literacy. In particular these are:
- **The Prague Declaration**[23] **(2003)**: this document is the output of an event called *"Information Literacy Meeting of Experts"*, which took place in September 2003 in Prague and its subtitle was: *"Towards an information literate society (Směrem k informačně gramotné společnosti)"*.

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[22] http://www.ifla.org/VII/s42/pub/IL-Guidelines2006.pdf
[23] http://www.infolit.org/2003.html

- **The Alexandria Proclamation on Information Literacy and Lifelong Learning**[24] **(2005)** defines information literacy as a key component of successful lifelong learning.
- **Achieving an Information Society and a Knowledge-based Economy through Information Literacy**[25] **(2006)**: set of recommendations for the development of information literacy in central and south-eastern Europe. The document resulted from a meeting of representatives of countries from this region which took place in March 2006 in Lubljana, Slovenia.

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[24] http://www.infolit.org/2005.html
[25] http://www.coil-ll.si/UserFiles/File/Proposal%20for%20an%20Information%20Literacy%20Platform_Brochure.pdf

APPENDIX 3 Model action plan for preparing an information education project

During the preparation of a new information education programme it is **essential to give consideration to the conditions** under which the project is created and for which it will continue to operate. A summary of steps follows, which no creators of a new educational project should omit. They are general principles which must be adapted to the actual conditions in the given institution.

a) <u>Establishing objectives of the project</u>

The success of a new project is based on a set of clearly defined objectives.
In the preparation of an information education project two fundamental alternatives are available:
- an information education strategy for a whole university, faculty, or department/institution,
- specific activities in information education.

It is important to consider the individual types of information education components (and for the needs of the whole strategy). These can be as follows:
- **An excursion** – a short visit to the library, tour of the library area, introduction to basic services offered;
- **One-off instruction** – introductory orientation to the information services within the university and also to the services of other libraries and information centres in the town (region); instruction connected with the use of the university's information system;
- **Seminar, training** – practically directed education during which participants are actively involved and can immediately try out their newly gained knowledge;
- **A series of lectures** (e.g. as one of the library's services) – a series of monothematic lectures provided by the library for interested parties (lecturers, students, employees); can be directed, e.g. towards working with databases accessible in the university library/ies;
- **Lectures within other subjects** – a very appropriate and preferred form of information education which places an emphasis on implementing knowledge and skills gained for practical working with information, i.e. during studying and for dealing with tasks connected with study. This form of information education is very demanding on teacher–student cooperation. Its use is mainly appropriate for higher years of study when students have gained the theoretical basis of working with information and are acquainted with some general patterns;
- **Courses integrated into curricula** – a basic one-semester course should be integrated into the start of study (ideally in the second semester) as part of curricula for all students regardless of type of study. The course should usually comprise lectures, seminars and practical exercises. The newly gained knowledge and skills should be followed by a gradual introduction to specific information work in each individual field within individual professional courses.
- **Cooperation between lecturers of professional courses into which working with information is integrated with librarians** – based on recent findings this is an ideal and effective approach. Thus information education quietly and unobtrusively becomes a part of teaching in professional courses within the curricula. University educators, who are experts in the given field, play a leading role here and on the basis of their own experience and utilization of information during their scientific or

academic work they motivate students to do competent work with information for tackling everyday study problems and tasks. Cooperation between educators and librarians is considered to be very important, particularly for informing students of new information sources or other information sources which the educators may not be aware of in detail. Topics for course papers can also be discussed so that during writing the students are led to use various types of information sources. Librarians may also contribute to information on the services students can utilize during their studies.

At present various forms of teaching methods can be used, e.g. applying ICT. It is necessary to consider which form of teaching should be selected for each educational project:
- Traditional;
- Online;
- Combined.

b) A definition of target groups

Which target groups will the suggested educational projects involve and who will they mainly be aimed at? Exact definition of the target group is extremely important as it allows the establishment of more precise content and objectives of teaching, initial knowledge, relevant forms of teaching methods, etc.
The following target groups are offered in the university environment:
- Students – according to type, form and field of study (e.g. master's combined, bachelor full-time);
- Teachers and scientists;
- Professionals;
- Employees.

It is also necessary to take into account the specific needs of the members of the abovementioned target groups. This can involve, for example:
- Physically or mentally handicapped;
- Language barriers with foreign students and host lecturers.

c) Project partners

For the needs of establishing a quality team it is necessary to define project partners who will take part in the educational project from its start and throughout its operation. Representatives from each partner should be included in the team and the role of each individual member of the team should be clear set.
A partner to be involved in an information education project could be, for example:
- University management;
- The faculty or department of the university involved;
- Individual academics;
- A university/faculty/department library;
- Other professional workplaces of the university (e.g. advice centre, educational centre, centre for foreign affairs, IT department);
- Another university (Czech or foreign) in the role of co-investigator or consultant;
- Professional organisation or workplace in the role of consultant.

d) Excerpts from the initial documents

Particularly for the needs of defending and promoting a new programme it is important to prepare a summary of the relevant documents[26] which underline the significance of the information education activity prepared. The selection of key points from these documents creates, together with the results of the analysis of the state of the art at the university, an important basis for negotiation with the university or faculty management.

e) Suggested approaches

The approach to preparing and starting a new education project should proceed in several steps. These steps should be made in a specified order and not a single one should be left out. Because we do not work under ideal conditions and it is often a battle with time constraints or lack of funds, the following breakdown may serve as an inspiration for the situation in a particular institution:

- **Mapping the situation (pilot study):** Performance of minor "investigation" of the target group and establishing their stand to using information sources, library services and utilising information to complete study tasks. Are these students interested in learning something new in this field? The plan should also be consulted with educators and the university management.
- **General strategy:** The results of the survey should contribute to the creation of a general strategy for an education project. Within this the main objectives should be formulated the project and the theoretical starting point (standards, recommended documents, etc.). The significance of implementing information education components should be emphasised in a wider context with general trends in university education. Stressed should mainly be the opportunity to modify the teaching style in a way offered by the wide spectrum of information sources – consequently the inclusion of information education components directly into the teaching of the professional courses[27]. Relationship to other projects that have been investigated in this field should also be explained. At the end of this phase a working group should be established. This group will engage in developing of final version of the information education strategy.
- **Presentation of the plan:** Once a general strategy is created it is necessary to start presenting the prepared project. This presentation should take place on all levels. Meetings, in particular, should take place between university management, educators and library representatives, during which all groups should be able to express their opinions on the planned changes in teaching. Students should also be informed about the planned changes in teaching, preferably through the lecturers of professional courses.
- **Working out a detailed strategy:** In this phase of the project there should be a sufficient amount of information available for the creation of a detailed strategy for the project in question. It must take into account all theoretical starting points and at the same time respect the specific conditions of the university/faculty/department. The range, form of teaching and its resources (staff, financial, technical and logistic) are defined in the detailed strategy. This document should be supplemented by a curriculum of the courses or lectures, including instruction materials (or their concepts). Subsequently the process starts of submitting comments and approval of the

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[26] A breakdown of the basic documents is available in chapter 2.2.2, also in Appendix 2 of this document.
[27] In accordance with Priority 2 in this document.

strategy by the relevant academic bodies. Even in this phase the authors of the strategy should continue in its presentation and defence.

- **Trial teaching:** After approval of the final version of the education project, the following phase is to implement a trial into teaching. Demonstration lectures can be provided for students and lecturers. Another alternative is to have optional lectures or seminars in selected departments, faculties or at a university-wide level. Feedback from attendees (e.g. by questionnaire) is very important after all forms of trial teaching. The responses and comments may contribute to necessary amendments to the strategy prior to its introduction into regular studies.

- **Starting up teaching:** After considering all comments which appeared during trial teaching and their eventual inclusion in the final version of the strategy teaching can start in the form it was structured and approved. Discussion of problems arising in connection with the introduction of starting up teaching should continue. It is important to organize further seminars where the results of work on the new information education strategy will be presented to the library public along with the first experiences of teaching.

- **Administrative and didactic provision and grading:** Information education, whether as a part of professional courses or as an independent subject, should be managed in the faculty/university's curriculum in an identical way as other subjects. If the course is integrated into the curricula (by assessment, exam or state final exam), the course needs to have a qualified examiner who will guarantee the technical and legal correctness of the exams.

- **Further steps:** The approval of the final version of the information education strategy and starting up of teaching leads to the longest phase of work connected with information education at the university in question. It is necessary to monitor the newest knowledge and trends in working with information, to record these changes and implement them as quickly as possible into teaching. This should be a motivation for librarians participating in the instructions and for lecturers of individual courses to continue searching for new methods and forms of transferring relevant information to students.

f) Requirements for presonnel

The appropriate balance of qualified personnel is important for the creation of new educational projects. It is fundamental to answer the following questions:

- How many people are necessary to complete the project in its selected range?
- How many partners (universities, faculties or departments) will take part in the project and how many people will each partner provide?
- Who will be the coordinator/guarantor of the whole project?
- What will be the team structure responsible for the project – questions of responsibility, hierarchy, etc?
- What qualifications and competencies should individuals involved in the project have?
- Do we have enough skilled staff available or will it be necessary to further train the existing employees? With regard to this situation, is it more appropriate to bring in new employees with the required knowledge and skills?
- If we make use of existing staff, who will take on their present tasks – completely or partly?
- Can an influence be expected of the project on current library services? How can the staff be prepared for these changes?

Requirements for personnel are very closely connected with availability of funds for a newly created project.

g) **Financing**

With a new project it is necessary to ensure:
- Staff;
- Space;
- Technical equipment;
- Instruction materials;
- Other aids.

Ensuring financial sources for a new educational project is a critical point for the whole process. These basic financing options are available:
- From the library's budget;
- From the faculty/department's budget;
- From grants.

Grants can be obtained, for example, from:
- An internal grant agency at the university (e.g. Charles University Grant Agency);
- External grant agencies (e.g. the University Development Fund, the Grant Agency of the Czech Republic, the Grant Agency of the Academy of Sciences of the Czech Republic);
- Grant agencies of individual ministries – according to the field of specialisation.

Funding can be currently obtained from European Union funds, e.g. Operational Programme Human Resources Development (OPHRD)[28].

h) **Evaluation**

On-going evaluation of information education activities allows for regular updating and gradual tuning of lectures, seminars, courses or the overall information education strategy within the institution.
The evaluation criteria are as follows:

- **Teaching is connected with investigation a particular situation:** relates to, for example, a particular work task or project (seminar or end-of-year paper).
- **Components are integrated into so-called active learning:** i.e. this does not mean a simple interpretation or coherent text - exercises and examples are integrated which illustrate the treated topic[29].
- **Components of cooperation are integrated into learning** (collaborative learning): students work together in groups, e.g. with a catalogue or database to explain and discuss. This leads to an improved understanding of the topic[30].

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[28] More information on OPHRD is available at: http://www.strukturalni-fondy.cz/oprlz or http://www.esfcr.cz/clanek.php?lg=1&id=11
[29] This type of instruction is typically labelled in foreign literature as *problem based learning*
[30] This criterion is difficult to achieve in most materials accessible on-line. Perhaps it could be applied to more extensive courses in the form of e-learning which allows the librarian, in the position of an instructor, to lead virtual discussions. .

- **Instruction materials are available in different formats and in different media:** this is based on the fact that everybody learns in a different way. Some people are better suited to listening to the situation, whereas other are visual learners and yet others learn best by trying everything out themselves – learning by doing.
- **Each course has clearly defined objectives:** these objectives should be obvious not only to the instructor and/or creator of the instruction materials but also to the students. If the students know in advance which direction the lesson or course and materials are going, they will be able to follow much easier. In electronic courses it is possible to solve this by giving detailed contents in the introduction to the document and with the help of a map or interactive menu allowing students to navigate their way around the material easily.
- **Students can use consultation:** no information education components should finish at the moment the instructor leaves the classroom and/or when a student reaches the last page of the instruction material. Instructor should enable students to visit him with questions (personally, by email or telephone) at any time in the future.

APPENDIX 4 An article on the pilot survey on the level of university students' information
literacy[31]. In Czech only – see the reference.

[31] Dombrovská, Michaela. Pilotní průzkum úrovně informační gramotnosti vysokoškolských studentů zaměřené na služby knihoven - IVIG. 2004 (l.kolo) & 2005 (2. kolo). In: *Informační gramotnost. Sborník příspěvků z konference, konané 24. listopadu 2005 v Moravské zemské knihovně.* Brno : MZK 2006. s. 74 – 83.