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## A Good Start for Information Literacy

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*Angela Repanovici*

### **Author**

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**Prof. univ. dr. Angela Repanovici**, “Transilvania”  
University of Brasov  
E-mail: [arepanovici@unitbv.ro](mailto:arepanovici@unitbv.ro)

This issue of *Revista Română de Biblioteconomie și Știința Informării* (Romanian Review of Library and Information Science) is dedicated to Information Literacy.

Information Literacy was defined at the congress IFLA from Alexandria, Egypt in 2005: “*science of the humans’ development in all sectors of life in order to search, use and create the effective information so as to personal, social, occupational and educational purposes*”. Information Literacy may be considered a strong tool for the participation in the information society, for the encouragement of the information production and interdisciplinary creativity. The education in Information Literacy induces knowledge and critical and analytical thinking. Likewise, the Romanian Library Association played a special part in specializing the staff within the libraries. With respect to the other professional categories, there has been little done. During the initiation of a marketing research, with respect to the existence within the curricula for other specializations and fields of knowledge, there could be noted that there were singular cases in which the students have in the curricula courses of information and documentation, that the libraries offer courses of initiation or that there are online tutorials aiming at initiating the search and the use of informational resources. This study enhances

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## ■ A Good Start for Information Literacy ■

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that the students in Romania prefer the Internet as information source accessed from home, however they are not acquainted with the rigorously scientific documentation sources, with the academic literature, with the scholar Internet, with the invisible web, with the evaluation of the resources, with the ethic notions, with the plagiarism and the communication of the results in the scientific research.

The Ministry of Education, Research and Innovation started a praiseworthy action, of professional reconversion of the school librarians. The action of development of a new socio-professional category - teacher librarians - has implications in the development of informational society, in the quality of the population's life through obtaining the abilities of information, documentation, evaluation of the information starting from the pre-university education through developing pedagogical abilities in the teacher librarians.

Numerous researches and studies proved that youth, since young times, spend more and more time interacting with the information and documentation technologies. There is compulsorily necessary for the introduction of IL in education and schools curricula for generating the knowledge of the media role and of the information services.

We will start initiatives dedicated to implement and develop information literacy tools in Romania. The authors of these papers were participants to international workshop held in May 2009 to "Transilvania" University of Brasov. The theme of the workshop covered trends and priorities in national, European and global design and development of new methods, training, learning and teaching of science information in all fields of knowledge. Participation of international personalities involved in this science field gave the successful and scientific quality of discussions and proposals to create premises for further developments. We hope to be a good start.

# How to optimise relations between Library, Administration and Teaching Staff?

*Gunnstein Akselberg*

## Author

**Prof. dr. Gunnstein Akselberg**, University of Bergen, Norway  
E-mail: [gunnstein.akselberg@nor.uib.no](mailto:gunnstein.akselberg@nor.uib.no)

## Abstract

As a consequence of implementing the Quality Reform of Higher Education, the Universities and implicitly their libraries undergo a process of positive change. An edifying example to this purpose is constituted by the University Library from Bergen, which has been successfully implementing these steering principles and is confronted to the progress compelling challenges, mainly the ever-increasing orientation towards electronic text channels. The Library is also preoccupied with the conservation and preservation of archival documents, consisting in text on printed format and texts as historical sources. It also actively participates in the students' life, through organizing orientation meetings upon the provided courses and services. It has likewise restored its physical surroundings and has been supplied with facilities such as Internet, reading rooms and open access. The library strategies, its answers to late-day challenges and the pending issues are dealt with and managed by the library management, represented within the University Board of the University of Bergen.

**Keywords:** *university library; quality reform; higher education; research librarian; workshop*

Ca o consecință a implementării reformei calității învățământului superior, rezultată în urma Procesului de la Bologna, universitățile și, implicit, bibliotecile lor urmează un proces de schimbare pozitivă. Un exemplu edificator în acest sens îl constituie Biblioteca Universității din Bergen, care se află în plin proces de implementare a acestor principii călăuzitoare și care se confruntă cu provocările progresului, în special cu orientarea crescândă spre canalele electronice de comunicare a textelor. Biblioteca este de asemenea preocupată de activitatea de conservare și preservare a documentelor de arhivă, constând în texte în format tipărit și în texte ca surse istorice. De asemenea, ea se implică activ în viața studentescă, organizând întruniri cu scop de ghidare și informare asupra cursurilor și serviciilor oferite. Pe de altă parte, biblioteca și-a restaurat locația și a fost dotată cu facilități precum conexiune Internet, noi săli de lectură și acces direct la raft. Strategiile bibliotecii, reacțiile ei la provocările timpurilor actuale precum și chestiunile stringente sunt analizate și soluționate de conducerea bibliotecii, care este reprezentată în Comitetul de Conducere al Universității din Bergen.

**Cuvinte-cheie:** *bibliotecă universitară; reforma calității; învățământ superior; bibliotecar de cercetare; workshop*

## 1. Introduction

The three main responsibilities of the universities are research, teaching and dissemination of information. In order to carry out and take care of these responsibilities in a satisfactory manner, good, solid and relevant infrastructure for information and knowledge must be in place at the universities. The university libraries are an integral part of this infrastructure. Previously the university libraries were, on the whole, a clearly delimited and homogenous arena with a clear profile. Here there were texts written or printed on paper: i.e. mainly books and periodicals or manuscripts and old written sources. The users were teaching staff, researchers or students who came to order or collect books or who sat in the library studying literature that had to be read on the premises. The reading rooms in the libraries were also used by students as the universities were insufficiently equipped in this department. Today the tasks and functions of the university libraries have changed a lot. I will focus on the theme *How to optimise relations between Library, Administration and Teaching Staff* in relation to the changing functions of the university libraries and I will in this connection provide some examples from the University library at the University of Bergen. At the University of Bergen there are six faculties: The Faculty of Medicine and Dentistry, The Faculty of Mathematics and Natural Sciences, The Faculty of Law, The Faculty of Psychology, the Faculty of Social Sciences and The faculty of Humanities. Each faculty has its own special library and these libraries constitute the university library in Bergen. Last year the Library of the Humanities and the Library of Social Sciences merged and now share the same administration. They do, however, still constitute two separate physical collections. I will mainly provide examples from the Library of the Humanities.

## 2. The function of the library in the field of humanities

The Library of the Humanities differs from the libraries of the other faculties at the

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University of Bergen with regard to archival documents: texts written or printed on paper (books, periodicals etc.) and texts as historical sources. Firstly, printed books are an important source in research carried out in the humanities. Secondly, printed and handwritten sources are important historical documents in research in this field. A handwritten source from 200 BC is as central, important and interesting in research in the humanities as a contemporary text.

These two features characterise archival documents found at the Library of the Humanities. The Faculty of Law also has texts printed on paper. The second feature; printed and written texts as historical documents, is more or less uniquely associated with the Library of the Humanities. The other libraries are less interested in books and texts printed on paper. Their interest in digital texts, on the other hand, is great. In research in philology and in the humanities the interest in and use of books and texts on paper is great. Consequently, it is important that the Library of the Humanities continues to buy books, to preserve old texts and to develop its archives. The archives of the Faculties of Humanities are closely connected to the University Library. We are currently discussing how the connection between other archives such as archives of names, dialects and diplomas and, subsequently, other collections of texts and the University Library can, shall or should be in the future. In this context competences related to texts and corpora and the use and accessibility of electronic media are important.

### 3. Optimisation

#### 3.1 The subject specialist arrangement

The subject specialist arrangement is an important link between the library and the faculty/the academic environment. The subject specialist is in charge of certain fields and should at all times be updated on periodicals, book catalogues, reviews and central publications related to particular subjects. The library is consequently able to add new publications to its collection of books in an informed manner. The subject specialist is an expert employed by the

library who holds a Master's degree or a PhD. In addition to the task of building a collection of books, the subject specialist should keep in touch with the users, e.g. students, PhD candidates and academic staff, and should be able to answer difficult questions related to bibliography and references within his or her field. A subject specialist is usually in charge of subjects that are related, such as Spanish linguistics, English linguistics, general linguistics and humanistic informatics etc. Books are bought by the library on the basis of advice given by these experts.

The subject specialist often has the title Senior Research Librarian. The subject specialist actively participates in the academic environment and is therefore an important link in the cooperation between the library and the academic communities. This arrangement works well with regard to subjects, yet is less satisfactory with regard to others. The arrangement does not work very well with regard to a few. There is a great potential for progress here. Cf. Leerintveld and Otegem 2003.

#### 3.2 Teaching offered

In recent years the University Library has developed excellent courses which focus on central topics related to the use of library sources and information in text production. These courses concern for instance quotation and reference techniques, the treatment of information and information ethics. In recent years the problem of using reference texts and reference ethics have increasingly become a challenge at all academic levels; from the graduate level to the post-graduate/ doctoral level. The university library has been actively involved in this department, offering tailor-made courses for our academic users of the library. Today there is a great need for this kind of competence, which is still not met, and there will be an increased need and demand for this kind of teaching in the future.

We are presently integrating these courses in the programme descriptions/curricula so that they become an integral part of the teaching offered at the faculty and in the respective subjects. Cf. Landøy and Repanovici 2008a, 2008b, 2008c.

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### 3.3 Academic Board representation

At the University Board of the University of Bergen there are academic board members. Here there is a good formal integration of the academic environments and the management of the library. Through this integration information is given reciprocally and this lays an important foundation for the academic function and practice of the university library. Of especially great importance is the development of steering documents and strategic plans for the library and comments on these issues related to the steering documents and strategic plans of the faculty. This contact with the top level of management at the library has proven very fruitful, especially in the current period of time which is challenging in two major ways; the difficult financial situation and the significant change towards electronic text channels.

### 3.4 The University Teaching Committee

The University of Bergen has a central teaching committee in which the university library has an observer status. In this teaching committee the library takes part as an observer on a permanent basis. In this way the library obtains good information on recent developments in the strategic teaching profile of the university centrally and the challenges related to strategies and principles of teaching within the faculty. It is within the educational sector in particular that the university library has been granted added responsibilities in recent years. Students nowadays use the library more actively than before in connection with the preparation and writing of coursework. Following the implementation of the Quality Reform of Higher Education at the University of Bergen, new methods of teaching and evaluation have been introduced, such as process-oriented text production at graduate and post-graduate level. This approach to text production has imposed new requirements on students as they are asked to gather information and critically judge the information found.

### 3.5 The specialised collection

At the traditional university libraries there are so-called specialised collections which mainly consist of special collections of old historical documents, facsimiles of such documents and literature related to these sources. At the University of Bergen there is a specialised collection which mainly contains literature related to medieval texts and literature and to non-fictional texts dating from this period of time until the turn of the 19th Century. This collection is an example of a specialised collection which is an asset to the expertise possessed by the faculty within this field. This collection is frequently used by experts at the departmental level and employed with enthusiasm by experts at the Centre for Medieval Studies (CMS), a Norwegian Centre of Excellence (CoE) run by the Faculty of Humanities. The specialised collection is in this respect a good example of the manner in which the library keeps in touch with and provides expert knowledge to our very best internationally-oriented academic communities.

### 3.6 Orientation meetings and meetings between the faculty and the library

At the beginning of each semester there are orientation meetings which provide information about every subject taught at the various departments of the faculty. A member of the library staff attends most of these orientation meetings in order to inform the students about relevant courses and services provided by the library. This is in many cases the first time the students meet an expert from the library, a meeting which is directly relevant for the teaching offered by the department. In addition to these meetings, the library gives additional information to students and experts on request, or provides information about new services introduced at the library. The library may, for instance, organise events for a particular subject, the departments or the faculty. The contact between the management of the library and the faculty has been flexible and good, and the manager of the library has attended several Faculty Board meetings in order to both give

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## ■ How to optimise relations between Library, Administration and Teaching Staff? ■

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advice and receive information.

### 3.7 The library as meeting place and workplace

As a consequence of the new curricula following in the wake of the Quality Reform of Higher Education, students have tended to visit the library more than was the case earlier in order to get information about and use the services provided. In addition to this, students work in the library as there are facilities there such access to the Internet, reading rooms and open library shelves. The Library of the Humanities has recently been renovated, and this has resulted in very well-adjusted physical surroundings, and conditions and services very much appreciated by the students. They use these facilities from early in the morning until the library closes in the evening. The new physical surroundings have, in fact, contributed to the creation of a material frame around the academic student environment and activities organised by the students. The library café located in the renovated Library of the Humanities has contributed to consolidate the student environment at the library both socially and academically. Cf Garnes, Landøy and Repanovici (eds.) 2006.

### 4. Challenges

The relations between the library, the faculty and the administration are already good today- all things considered, but much remains to be done before we attain the ideal level. These are the most important and pressing challenges in the years ahead:

- We must continue to develop formal meeting places for the library, the administration and the academic communities. Much has already been achieved, and there is, on the whole, an attitude of flexibility, optimism and motivation with regard to the continuation of this work. We do, however, need more formal meeting places at a central level, at faculty level and at departmental level.

- The library should be represented (as an observer) in the central research committee. This

is a good and functional way to supplement the observer representation in the Central Teaching Committee as it will enable us to see the strategies related to research and teaching that are directly linked to the library in a holistic perspective.

- A permanent arrangement where the library is given observer status in research and teaching committees at the faculties would also be very useful. In this way one would be closer to the academic environments, and equally important is the possibility to obtain information centrally (through observation status in the central teaching committee) in addition to information from the faculties.

- One of the most important tasks that one is currently facing is to integrate the tailor-made student courses offered by the library and the technical and esthetical issues related to the respective curricula at the faculty. We have embarked on this project, but much remains to be done before these courses are fully integrated in the curricula.

- Closely connected to the integration in the curricula is the implementation of the offers in the teaching portfolios of the various departments. Much remains to be done in this respect. It is important that these offers become an integral part of ordinary and obligatory subjects taught at the faculty. Today students are under a lot of pressure due to a host of tasks, so unless these offers become a part of the compulsory subject portfolio, the effect will not be as good as it should be.

### 5. Summary

We currently have many qualitatively good, effective and developmentally oriented relations at different levels between the library, the administration and the academic environments:

- The subject specialist agreement
- Tailor-made courses
- Academic Library Board representation
- The observer status in the central University Teaching Committee
- Regular orientation meetings and ad hoc meetings
- Practical and physical conditions

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- Books, texts on paper and various specialised collections are prioritised.

There are many challenges ahead - in addition to a great potential for further development and improvement of these relations:

- More formal and informal meeting places for the library, the administration and the academic environments - at a central level, at faculty level and at departmental level

- More observer positions at different levels

- A permanent arrangement according to which observer status is granted at the teaching and research committees at the faculties

- Better integration of the tailor-made courses offered by the library

- Implementation of these offers in the teaching portfolios of the departments.

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# Library Network Support Services (LNSS) and information literacy: collaborating, sharing, repurposing, reusing and not reinventing the wheel

*Jerald Cavanagh*

*Padraig Kirby*

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## Authors

**Jerald Cavanagh**, Limerick Institute of Technology,  
Limerick, Republic of Ireland

E-mail: [Jerald.Cavanagh@lit.ie](mailto:Jerald.Cavanagh@lit.ie)

**Padraig Kirby**, Limerick Institute of Technology,  
Limerick, Republic of Ireland

E-mail: [Padraig.Kirby@lit.ie](mailto:Padraig.Kirby@lit.ie)

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## Abstract

This article reports on the Library Network Support Services (LNSS) project - a collaboration to implement and champion online information literacy initiatives across a consortium consisting of a university, a teacher education institution and two Institutes of Technology. The article describes the origin and development of the LNSS, deals with the growing importance of information literacy in the Republic of Ireland and internationally and describes the process and methodology for implementing online information literacy initiatives including training across the consortium. A new resource aimed at maximising collaboration and resource sharing of information literacy resources across Europe is proposed.

**Keywords:** *library network; information literacy; training; resource center*

Articolul oferă informații asupra proiectului Serviciilor de Sprijin pentru Rețeaua de Biblioteci (LNSS) - o colaborare în scopul implementării și susținerii inițiativelor de inițiere online în informare prin intermediul unui consorțiu format dintr-o universitate, o instituție de formare a profesorilor și două Institute Tehnologice. Sunt descrise originile și dezvoltarea LNSS, este analizată importanța crescândă a culturii informației pe teritoriul Republicii Irlanda și pe plan internațional și sunt prezentate procesul și metodologia de implementare a inițiativelor de inițiere online în informare, inclusiv formarea oferită de consorțiu. Este propusă o nouă resursă menită să maximizeze colaborarea și partajarea resurselor de-a lungul Europei.

**Cuvinte-cheie:** *rețea de biblioteci; cultura informației; formare; centru de resurse*

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## Introduction

[Information literacy is] *the ability to access, evaluate, organize and use information in order to learn, problem solve, make decisions - in formal and informal learning contexts, at work, at home and in educational settings* (Bruce 2003).

There are many definitions of information literacy and as many scholars have tried to trace the birth of this essential 21<sup>st</sup> century skill (Bruce 2002). Zurkowski is recognised as the first to mention the term information literacy in 1974 (Webber 2000 cited in Breen and Fallon 2005) however, information literacy began to be discussed in the 1960's as educators felt the phenomenal surge in knowledge and rapid technological change (Bruce 1997). Its emergence has propelled librarians from their traditional role as custodian, access and distributor (Carver 2007) into the world of teaching and training, a world where information literacy is now widely recognized as the "trademark pedagogy of librarianship" (Kapitzke 2003 cited in Montiel-Overall 2007). Traditional means of information literacy delivery such as induction, face to face group training, individual advice and consultation have blended with the emergence of web based information literacy tutorials and suites their inception and proliferation owing to a new demand for educational opportunities and information services that are increasingly no longer place based.

This paper charts the journey of the Library Network Support Services - a collaboration between the *Shannon Consortium* libraries of Limerick Institute of Technology, University of Limerick, Mary Immaculate College, Limerick and the Institute of Technology, Tralee in the Republic of Ireland. The collaboration consists of two main strands which are arguably the most important issues in Libraries and Librarianship today - that of Library Staff Development and Information Literacy.

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## ■ Library Network Support Services (LNSS) and information literacy: collaborating, sharing, repurposing, reusing and not reinventing the wheel ■

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### LNSS: genesis and mission

In 2002 the Irish Government announced a 1.2 billion funding package for third level education in their budget (Irish Times 2005). Considered a landmark moment for Irish Universities and Institutes of Technology (Irish Times 2005) this package was supported by a further €300 million Strategic Innovation Fund (SIF) which encouraged colleges to collaborate and compete for finance to meet wider economic and social targets:

*The strategic innovation fund was established by the Government to promote collaboration, support change and enhance quality in Irish higher education so that it is equipped to meet the challenge of driving Ireland's development as a leading knowledge economy. It reflects the reality that for Irish higher education to attain world-class standards, we need to identify creative approaches that build on the collective strengths of our institutions, working together as a cohesive system* (Ireland, Department of Education and Science).

In essence the Irish Government has made a pact with third level; it would deliver world class funding if the colleges deliver world class performance. In 2006 Limerick Institute of Technology, Institute of Technology Tralee, Co. Kerry, Mary Immaculate College Limerick and the University of Limerick harnessed their collective strengths to form the Shannon Consortium with a bold vision to transform the higher education landscape in the region in a unique integrated approach across a university, a teacher education institution, and two Institutes of Technology. The consortium has realised success in securing funding for projects as diverse as an Applied Biotechnology cluster, a Buildings Research Establishment for Ireland, a student radio station and most important from a library perspective Library Network Support Services (LNSS).

LNSS has a budget of almost €990,000. Half of this sum is provided for by SIF and the remaining €495,000 is matched funding consisting of staff time of non SIF funded staff in partner libraries such as time spent attending training courses and any other work which not

directly funded by SIF. LNSS activities are directed by the LNSS Steering Group consisting of Directors of Library Services from the partner institutions and other senior level library staff. The project is managed and overseen by the LNSS Librarian Project Coordinator who is directed by the Steering group. The mission of the LNSS is to enhance and champion IL initiatives across the Shannon Consortium through the introduction of innovative web based support services and supporting information literacy teaching and training responding to the changing expectation of library users. The aim is to select, develop, implement and evaluate a suite of IL initiatives to International IL standards for the partner's libraries as a framework of support for learners over 2008 for rollout in 2009/2010. These IL initiatives consist of web based interactive IL modules. The LNSS project has a lifetime of 2.5 years lasting from 2008-2011.

### The growing importance of information literacy

Recent years have indicated a phenomenal push toward librarians demonstrating their pedagogical skills (Bloom and Deyrup 2003). In today's turbulent economic environment Information Literacy is a critical transferrable skill which can empower and help our students to achieve their goals:

*Information literacy is about people's ability to operate effectively in an information society. This involves critical thinking, an awareness of personal and professional ethics, information evaluation, conceptualizing information needs, organizing information, interacting with information professionals and making use of information in problem-solving, decision-making and research. It is these information based processes which are crucial to the character of learning organizations* (Bruce 1999)

The rise of information literacy has been supported and inspired by the development of numerous standards, guidelines and reports particularly United States, United Kingdom and Australia/New Zealand. The publication of standards such as the *American Library Association Presidential Committee on*

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*Information Literacy, the Australian and New Zealand Information Literacy Framework: principles, standards and practice* and *Information skills in higher education- Standing Conference of National and University Librarians* “seven pillars” model (SCONUL 1999) have been seminal moments for information literacy and have guided and inspired many by providing frameworks for the development of information literacy initiatives globally.

### Is information literacy a high priority in Ireland?

If we define information literacy as the fusion of different concepts, the integration of library literacy, computer literacy, media literacy, information ethics, critical thinking and communication skills (Parang et al., 2000 cited in Bloom and Deyrup 2003) the focus in Ireland has tended to be on information technology and not information literacy (Webber and McGuinness 2007). However the Consortium of National and Research Libraries (CONUL) Working Group on Information Skills Training have taken information literacy on board and are concerned with establishing best practice in information literacy skills training (IST), investigation of current Information literacy practice in CONUL and other relevant libraries, the integration of information literacy into institutional teaching and learning programmes, with regard to teaching and learning developments, and virtual learning environments /managed learning environments. CONUL also suggest areas of development opportunity, promotional material and guidelines for information literacy in CONUL libraries (CONUL 2004).

While some academic libraries are developing institutional literacy frameworks (Breen and Fallon 2005) there is no coherent approach to developing information literacy skills in Ireland and no cohesive national strategy (Russell 2008). Information literacy development in recent years has seen Irish Universities and Institutes design and develop online information literacy suites. Some attempts at creating these resources have suffered from being overly text

based and lacking engaging active learning exercise however a very recent and significant development has been the SIF funded collaboration between the National University of Ireland, Galway, University College Cork and Trinity College Dublin and their design and development of an innovative and engaging information literacy tutorial at a cost of €100,000 with €600,000 provided for Generic Skills Project and available at <http://sifinfolit.nuigalway.ie> (McSweeney and Conrick 2009). This resource features good use of online video and the provision of self reflective activities to help ensure student engagement.

### LNSS and information literacy in the Shannon Consortium

The LNSS project commenced in August 2008 with an in depth project scoping coordinated by the LNSS Librarian Project Coordinator consisting of extensive international research into Information Literacy suites and learning outcomes, learning design and multimedia as well as analysis of the needs of learners and existing IL initiatives across the Consortium. It quickly became apparent of the need to aim the IL suite at undergraduates and postgraduates audiences. Following extensive consultation with stakeholders using workshop, meeting and interview techniques and research into IL tutorials it soon became clear that the LNSS would need to develop initiatives which would disseminate both lower and higher order IL skills. The learning design would need to include lower order IL skills such as searching, using and evaluating information as well as higher order skills such as research management and good practice, getting published and writing skills as well as career planning.

Through careful research, assessment and selection of appropriate web based information literacy modules incorporating implementation of appropriate teaching and training programmes via the Regional Network for Staff Development strand of the LNSS the project would need to address the two-fold challenge which is facing all libraries: How to facilitate online support on a 24/7 basis? How to communicate effectively to

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address queries covering a wide range of topics from users differing in skills and learning styles? (Xiao et al. 2004)

### **LNSS Stakeholder Workshop October 6<sup>th</sup> 2008**

The LNSS Stakeholder Workshop October 6<sup>th</sup> 2008 Information Literacy component was attended by staff at Director of Library Service level as well as other senior level staff from Shannon Consortium libraries. The purpose of the workshop was twofold: to identify the current level of information literacy practice in the Consortium and secondly to identify suitable online modular information literacy for selection and rollout by the Consortium. In order to identify the current level of information literacy practice in the Consortium groups from each partner institution were asked to reflect on a number of questions that they were required to answer to ascertain the position in their own institution. The purpose of this session was to ensure that when the group were reviewing the possible IL suites that could be used, that they would use the information gathered in this session to ensure that the needs of their own institutions would be met within whatever suite was chosen. The questions that each group considered were as follows: Current IL approach used in their institution? Key challenges the institution faces in IL? How the institution is marketing/ensuring a presence of the current IL offering? IL needs in institution? (Any unique issues to be considered?) Preferred direction of IL project for each institution? Any specific requirements that the institution would like the model to include?

The conclusions were: IL was being provided across the Consortium in the following ways: provision of study guides online and paper, information literacy guides/tutorials on the Library Website e.g. on plagiarism, referencing, use of VLE's such as Moodle/Blackboard for online delivery, subject specific tutorials-presentations delivered by subject librarians in Library Training Rooms, general orientation for 1st years- e.g. library tours, support provided by the Learning Support Unit., "drop in" information literacy sessions for students.

The challenges facing Shannon Consortium libraries regarding information literacy were identified as follows: for some libraries it emerged that there was a perceived lack of coordination with regard to information literacy efforts and an overreliance on subject librarians as well as a need for a 24/7 access online information literacy resource. The need for increased marketing of current information literacy initiatives to students and staff was raised as well as a lack of confidence of library staff regarding information literacy teaching and training. Convincing academic staff of the importance of information literacy was also stressed at the workshop. Other problems identified were a shortage of staff to deliver information literacy initiatives particularly hands on tutorial based information literacy provision; lack of facilities for IL training; the need for Library involvement in the institutional marketing strategy in order to promote information literacy initiatives and the need to better cater for distance learners and international students.

### **Why choose to rollout online, modular information literacy initiatives?**

As noted earlier the dramatic multiplication of electronic resources of recent years has confronted libraries with the problem of delivering online support on a 24/7 basis. Also stakeholders in Shannon Consortium libraries and particularly the LNSS Steering Group were aware that delivering information literacy online was fast becoming a popular mode of delivery. For example a study of online information literacy modules between August and October 2004 identified that there were 31 online information tutorials available through Scandinavian universities (Sundin 2008). In another study over 200 Information Literacy tutorials were identified from the English speaking world. (Hunn and Rossiter 2006).

The decision to select information literacy content from suitable providers rather than design in-house was guided by research into the cost of designing e learning/information literacy. Research into the cost of designing content in-

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house had shown that the LNSS could achieve better value by assessing, selecting and modifying content from suitable vendors. Rumble (2001) estimated the cost of developing an e learning resource as between \$6000 and \$1,000,000. In a more recent study an e learning resource for 23, 000 students was launched at a cost of \$1.1 million (Lee et al 2004). While e learning must be successful in reaching learning objectives, have easy accessibility, have a consistent and accurate message, be easy to use, entertaining, memorable, relevant, and if possible result in reduced training costs (Angeliki et al 2005 cited in Steen 2008) it need not be developed from scratch and existing best models may be adapted and utilized thereby avoiding duplication, repetition and ensuring cost efficiencies.

### Methodology for selecting online, modular information literacy initiatives

Prior to the LNSS Stakeholder Workshop research was conducted across the Consortium coordinated by the LNSS Librarian Project Coordinator into online information literacy suites available worldwide. Using criteria influenced by research into current practice in Reusable Learning Objects (University of Cambridge 2003) and instructional design 20 potential suites were identified which were subsequently reduced down to 8 using interview email and survey techniques. These 8 tutorials were subsequently reduced down to 2 at the LNSS Stakeholder Workshop which stakeholders selected for implementation across the Consortium.

The criteria agreed by stakeholders with which to evaluate the online information literacy suites was influenced by research into reusable learning object specification (University of Cambridge 2003) and instructional design. The criteria were: Does it meet a variety of learning styles? What is the degree of interactivity? Does it promote active learning and hence is the pedagogy sound? Can the resource stand alone or is substantial customisation required? Can the resource be customised if required? Does the resource cater for different levels of IL needs of

students? What is the level of ongoing maintenance? How does the resource look? Will students find it appealing? Has the resource been created using learning outcomes based on information literacy standards? Is the duration a good estimate of the time it will take to work through? Is content factually accurate?

At the workshop stakeholders were given a short presentation for each of the 9 suites which were in contention. Prior to these presentations stakeholders agreed on the following criteria with which to assess and score each resource: meets a variety of learning styles; degree of interactivity; ability to stand alone (with no need to customise); ability to customise if desired; caters for different levels of IL needs of students; level of ongoing maintenance required (from a systems point of view); student appeal but professional looking.

Each suite was scored out of 5 taking into account the criteria. To arrive at each score the total score for the suite was divided by the number of people who actually scored the suite. Where a member did not score against certain criteria in a suite, a score of zero was allocated. The results were as follows:

Suite title	Average score	Order of preference
Epigeum	16.1	1
Cranfield	15.7	2
Quickstart	11.6	3
Texas	10.8	4
Queensland University	10.4	5
Info Skills	9.3	6
Pilot	8.9	7
Oasis	8.9	7
FIRST	8.9	7

Epigeum *Research Skills Online*, an online research and information literacy skills resource aimed at postgraduates and researchers and the *Cranfield Online Information Literacy Tutorial* largely geared towards undergraduates with a score of 16.1 and 15.7 were selected for implementation and rollout by the LNSS. Both these resources met the criteria. With regard to the Cranfield product it catered effectively for

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varying learning styles, featured active learning activities in each module, was customisable to some extent and needed not be customised if required. It catered for lower order information literacy skills, pillars one to four of the Sconul Seven Pillars Advisory Committee on Information Literacy, 1999 as well as higher order IL skills, SCONUL's pillars five to seven. (Hunn and Rossiter 2007). Learning outcomes for each tutorial were written and reviewed by library professionals and then mapped against each of the SCONUL Seven Pillars of Information Literacy. The resource also had high student appeal due to its effective navigation and use of engaging active learning activities and tests. *Epigeum Research Skills Online* also met the criteria. It met a variety of learning styles and provided active learning activities in each module. Unlike many online information literacy modules which are essentially static or cumbersome to modify at best, the resource is updated regularly with regular Update Workshops run by the supplier and modification can also be made within the organisation at any time and so the resource is essentially a living thing which can change, adapt and be repurposed to meet the needs of students. The interface is highly sophisticated and attractive to the user. Similar to the Cranfield product it is always clear to the user where they are in the tutorial and has impressive innovative use of online video, metaphor and engaging learning activities.

Perhaps the main reason why these were selected was due the fact that stakeholders were particularly interested in IL suites that used tools such as online video where experts speak about such topics as plagiarism, research methods, career planning or getting published as opposed to tutorials which were overly text based. *Epigeum Research Skills Online* was particularly innovative and engaging in its use of online video. The limitations of text based tutorials has been emphasised:

*Text based tutorials offer little help when experience and other staff development opportunities. The LNSS Stakeholder Workshop was also used to identify crucial training needs for the purposes of rolling out a full programme of staff training opportunities across the Consortium in 2009. As part of the Regional*

*dealing with complex concepts or processes. Direct assistance from library personnel is only available when the libraries are open. In today's web environment, a more effective learning tool [online video] is required to facilitate the support and instruction of electronic resources in a manner that appeals to the user. (Xiao et al. 2004)*

As well as meeting the aforementioned criteria *Epigeum Research Skills Online* with its online research skills modules dealing with such topics as career planning, research methods and research planning was in line with institutional and national policies with regard to research which stress "the importance of supporting future R&D activity reflecting the individual Institute's current strengths and their identified potential". (FORFAS 2007). The importance of investing in infrastructure to enable research development and growth is stressed in the National Development Plan 2007-2013: ... *the active recruitment of top-level researchers from home and overseas, the development of career paths and mobility mechanisms intended to grow our stock of researchers quantitatively and qualitatively can only be achieved by an investment in people matched by an investment in infrastructure. (Ireland, National Development Plan 2007-2013).*

### **The importance of staff development for information literacy initiatives**

Information literacy skills training has, especially over the last decade, become a core function of academic libraries and librarians throughout the world (Brown 2007). As mentioned earlier as well as information literacy the LNSS also concerns Library staff development and the rollout of a Regional Network for Staff Development through ascertaining training needs by means of training audits, running training courses, exchange of

Network for Staff Development component an audit of required skills was conducted at the LNSS Stakeholder Workshop where staff in Shannon Consortium libraries were asked to consider the development needs of staff. Stakeholders were asked to select their "top 20"

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development needs loosely grouped under the following headings: collection related, web and systems related topics, basic skills for library staff, management related, and user support

related. The need for information literacy and teaching skills featured prominently:

LIT	MIC	UL	ITTralee
Teaching Skills	Information needs of researchers (basic)	Web 2.0	Teaching skills
Customer services skills	Familiarisation with information products	Copyright	Basic information enquiry skills
Browsing and searching techniques	Teaching skills	Online information product creation	Web 2.0 introductory level

All stakeholders and particularly the LNSS Steering Group were concerned that it was not enough just to upload the online information literacy suites to our servers in the hope that students would locate and use them. Library staff would require training in information concepts and practice as well as teaching skills in order to deliver effective information skills training. The LNSS Steering Group realised the importance of having experts in information literacy skills training and a *train the trainer's* approach, persons with a comprehensive knowledge of information literacy who can return to their organisations and train and inspire others (Horton 2008)

At the LNSS Stakeholder Workshop the need for Web 2.0 skills along with teaching and information literacy skills emerged as a major staff development need for Shannon Consortium institutions and to address this need the LNSS have organised and championed a new hands-on, immersive Web 2.0 online learning course giving staff an opportunity to explore tools such as Blogger, Flickr, YouTube and del.icio.us and the impact these tools are having on libraries and library services. For 12 weeks (starting February 09, 2009), participants use freely available online tools to complete a number of active learning activities.

The emergence of Web 2.0 has given libraries “a whole new bag of tricks to use and connect with our users” which are “freely available on the Web at no cost” and “which encourage community and participation” (Godwin 2007). Over 30 front line librarians and staff from across Shannon Consortium libraries with many more participants anticipated are now enrolled in this online course and are using Web

2.0 tools in the workplace leading to empowerment and greater participation in this *transparent library* of the 21st century (Casey and Stephens 2008).

### Information literacy and international collaboration: the way forward

As a subject information literacy has grown considerably in recent years and there has been increased collaboration, organisation and conversation (Webber 2008). Indicators such as the existence of professional institutions and journals, an international community, identification with the discipline, distinctive language and knowledge and research base delineate its rapid emergence as a subject field in itself. Academic Departments have not yet emerged but as information literacy develops and matures their emergence is a distinct possibility. Organisations such as UNESCO are highlighting the value of IL in countries at different stages of development and its potential to empower citizens and support economic activity at a grass roots level (Webber 2008). There are some powerful developments such as the appearance of IL in institutional strategies, more structured collaboration between academic departments and Librarians for curriculum development, strengthened interest in developing pedagogy and a growing interest generally in information literacy amongst academics. In Europe IL is finding its way into legislation. In Spain revised education laws have made information management education compulsory and Swedish higher education law legislates that all students must graduate with information skills (Webber

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2008). There are a multitude of standards, reports and guidelines emanating from many countries which are inspiring the creation of many more information literacy tutorials and suites. Collaborations for the creation of online IL suites and modules are increasing but there is a possible need for more European wide collaboration and perhaps the creation of a European Online Information Literacy Resource Bank which will facilitate pooling and sharing of online reusable learning objects and resources for information literacy across Europe to enable European wide collaboration and resource sharing while considering sociocultural contexts.

### Conclusion

Focussed on reusability and repurposing rather than reinvention and duplication of resources; on collaboration and resource sharing rather than isolation and unwitting repetition; on capacity building and integration the LNSS are delivering information literacy across the Shannon Consortium. For all who are engaged in learning in this information rich society the challenge to achieve information literacy is vital in capitalising on the diverse and often overwhelming range of information choices with which we are continually faced. These challenges are compounded further by the Internet- a gift which has presented us with near instantaneous access to the World's information but which has also forced us to develop strategies for confronting issues concerning accessibility, reliability, authenticity and validity as well as information overload. Such challenges require a united and collaborative approach, a commitment to resource sharing and the courage to repurpose, reuse, adapt and improve and resist unwittingly and in isolation reinventing the wheel.

The LNSS in fulfilling its mission to champion innovative web based support services and supporting information literacy teaching and training responding to the changing expectation of library users must also consider its legacy and ensure that information literacy is firmly embedded across the Shannon Consortium. It must go beyond mere implementation and bequest a model of resource sharing and a

foundation which will strengthen the future potential of the region, increased opportunities for blended, active and online learning opportunities, highly skills staff who are aware of the most up to date IL practice, increased collaboration and capacity building and most importantly students who "recognise when information is needed and have the ability to locate, evaluate, and use effectively the information needed". (American Library Association 1999)

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# Cooperation between librarians and teaching staff

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*Ane Landoy*

**The library in the university**

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## Author

**Ane Landoy**, University of Bergen Library, Bergen, Norway  
E-mail: *Ane.landoy@ub.uib.no*

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## Abstract

The changing times with new challenges and new need means that university libraries must look closely at their own visions and missions. The libraries must be ready to accept new tasks and cover the needs of the student's and academic staff in new areas. In this paper I will look at the need for cooperation between librarians and academic staff in order to optimize the teaching of information literacy in the library, and also present the on-line tutorial *Search and Write*.

**Keywords:** *challenge; university mission; task; information literacy*

În aceste timpuri în schimbare, care aduc cu ele noi provocări și noi necesități, bibliotecile universitare trebuie să se aplece cu mai multă atenție asupra propriilor viziuni și misiuni. Bibliotecile trebuie să fie pregătite să accepte noi sarcini și să satisfacă necesitățile studenților și personalului didactic, în noi domenii. Lucrarea subliniază importanța cooperării între bibliotecari și personalul universitar în scopul de a optimiza predarea culturii informației în bibliotecă și, de asemenea, prezintă tutorialul online *Search and Write*.

**Cuvinte-cheie:** *provocare; misiunea universității; sarcină; cultura informației*

University libraries all over the world are facing new challenges and new circumstances. The new and different environment will e.g. manifest themselves in the widely seen changing user behaviour, when the users are more and more using the electronic resources. Also, as the European Bologna Process puts more emphasis on students writing essays, this calls for new ways of using the library.

Another aspect of the changing environment for the library is the technological changes that have taken place during the last decades, with computers becoming more ordinary equipment for students and libraries. The digital wave with the enormous amount of electronic journals poses a different but related kind of challenge for the universities and their libraries.

On the one hand one can see a large increase in the publication, and the ease of dissemination of scholarly material and research results. On the other hand there is a similarly large increase in the costs of subscription to scholarly journals, way ahead of any ordinary price-rises in society. The costs are so high that the publications, and thereby also the results of the research, are out of reach for many of the universities in developing countries. This is in many ways counter to the possibilities that scholars now have to disseminate globally almost at once by using the Internet and the electronic channels.

Partly as an answer to this is the movement for Open Access, led by universities and academic libraries. At the moment, this is in its beginning.

Many universities in different parts of the world are having financial worries. This also influences the libraries. When the costs of subscription rise unreasonably and the agreements with the publishers are too harsh, this adds to the challenges faced by the libraries.

Although many libraries grapple successfully with these challenges, developing new services to meet new user needs, important stakeholders often have an old-fashioned view of the library. It is clear that libraries need new visions and updated images, and that they need to develop them in cooperation with stakeholders in the universities.

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## ■ Cooperation between librarians and teaching staff ■

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### Traditional cooperation

The traditional cooperation between subject specialists and scholars/university staff in a university library has centred on the development of collections. Subject specialists have tried to find what is, or will be, on the student's curricula. They have looked for what is the research interest at the department. This has been important, in order to be able to stock the collections with the most needed literature. The scholars, on their side, have asked for specific books or journals to be bought, or for access to particular archives or corpora. As long as the scholars can only suggest, the cooperation has been somewhat lopsided, with the tendency to think that the librarians know best, at least from the part of the librarians.

When it comes to training, it has for a long time been based on the available resources. "This is how to use the OPAC, and important database X".

In the new, challenging environment the library must make sure to have a good understanding of the needs of the stakeholders and the most important group of "customers".

### Key questions for the library

In order to obtain this understanding there are some important questions the library must ask itself and the stakeholders.

#### *Where are we today?*

This question has to do with the history and position of the library in the university, and can be answered by different means, like statistics, surveys and benchmarking.

#### *Where do we want to be?*

This question is about the vision for the future, and is closely related to the library mission. Important user groups and stakeholders are the ones that must be interviewed to give us the answer here, and also the librarians themselves.

#### *How do we get there?*

The answer to this important question comes from the literature, other libraries experiences and the library's own experiences of what works.

### More about "Where do we want to be?"

"Where do we want to be?" and "Who do we want to be in the university system?" are questions that will set the agenda for interaction with the academic staff in the university. One can differentiate between the services that the library would like to offer, and the services that they have to offer, because they are required and expected from main user groups.

The way to find the solutions for these questions will be in cooperation with the top leadership of the university and larger segments of main user groups. When one has a better understanding of the role of the library, as seen both from outside the library and inside, one may then do the necessary allocations of time and resources.

### An example of changing focus in the university and library

Among the new trends in the libraries in Norway, the implementation of teaching of Information Literacy has meant significant changes for the library, and also for the cooperation between academic staff and librarians.

### The most used definition of "Information literacy":

#### *Information literacy*

*is knowing  
when and  
why you need information,  
where to find it, and  
how to evaluate,  
use and communicate it  
in an ethical manner* (American Library Association 1989)

Part of the learning philosophy behind the program for information literacy, and behind all the teaching in the library environment, is based on the idea of situated learning; that the students will learn more, better and faster if the teaching or training is given to them at the same time as they are doing the relevant task. So if the students

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have a deadline for an essay at mid September, they will learn about relevant resources in late August/early September.

This way of thinking and planning trainings makes the library dependent on good and close cooperation with the teaching staff at the departments. They are the ones that plan the courses and the exams and know about the timing. The academic staff at departments is the ones that have control with the type of exam or essay to be written and assessed. Are the students given a broad field from where to write? Then they must be taught how to narrow the task. Are they given an already formulated hypothesis to answer? Then they need a different content of the teaching and training from the library.

The learning outcomes are discussed and set in cooperation with the subject teacher, and the subject teacher will arrange for smaller groups to be sent to the library.

In order for the teaching to be successful, the librarians and academic staff depend on each other, and on the cooperation they can manage for the benefit of their students.

Both the librarians and the academics prefer that the library teaching takes place in the library building, and we also use our web based program as an on-line back up.

The web based program that also may be used for distance students is called “søk og skriv”, or search and write. It is based on SWIM from Aalborg University Library, and has been developed in cooperation with several other institutions of higher education in Bergen.

[www.sokogskriv.no](http://www.sokogskriv.no)

Here are some screen shots of the web based program:



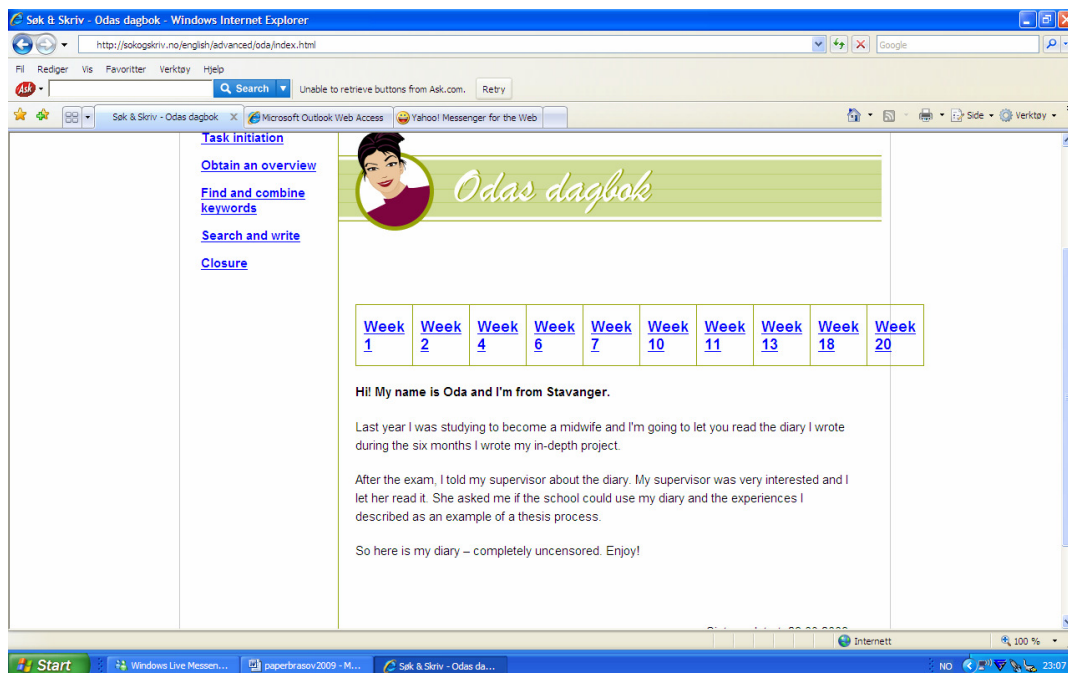
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The program is module based, with the modules based on the flow of the writing process.

Also, there is a feature called “Oda’s diary”, where an imaginary student called Oda writes

about her different experiences in writing an in-depth project. She records the emotional turmoil as well as the information searches she is doing.



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There are also some exercises that will familiarize the students with one pattern of writing essays.

An important part of the course, which has been developed on the basis of the cooperation between librarians and academic staff, is the part

that deals with the evaluation of different kinds of information, both printed and electronic.

A very brief argument for the importance of this, especially when it comes to electronic sources for information, can be found in this table:

Survey from two Universities 2008	Brasov, Romania	Bergen, Norway
Library OPAC	37 %	22 %
Library databases	20 %	16 %
Internet	43 %	52 %

This survey from Bergen and Brasov from 2008 shows that half the students will start their search for information for a given assignment in an Internet search engine. With the enormous amount of information from all kinds of informers to be found electronically, students are in desperate need for some kind of tools to be able to handle this successfully.

In addition, 89 % of university students from all over the world will go to a search engine at Internet to start to search for information (Rosa et al 2005, p. 1-17). The 2008-survey from Bergen and Brasov asked about information for an essay or assignment at the University, while OCLC asked about search for information generally, so the results may not be compared directly. Still, the trend is the same.

### Conclusion

Students need tools to cope with the information overload, especially on the Internet. Libraries have traditionally been the custodians of academic information at the Universities. In close cooperation with academic staff, one way forward for the libraries is to take care of the teaching of information literacy. By doing this, the library will have a new role to play in the University, and will be able to update its vision and mission.

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# Romanian Librarian's Portal: creating an online professional environment

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*Robert Coravu*

## Premises

### Author

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**Robert Coravu**, Deputy Director, „Carol I” Central University Library of Bucharest  
E-mail: *coravu@bcub.ro*

### Abstract

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The premises, the objectives and the advantages of creating an online professional environment - Romanian Librarian's Portal - are presented.

**Keywords:** *information literacy; librarians; professional development; portals*

Articolul prezintă premisele, obiectivele și avantajele creării unui mediu profesional online: Portalul Bibliotecarilor din România.

**Cuvinte-cheie:** *cultura informației; bibliotecari; perfecționare profesională; portaluri*

The idea of creating an online professional environment, meant to facilitate and foster communication and professional development of the Romanian librarians, is based on several observations. Without insisting on the causes (the lack of LIS education continuity and the absence of professional associations during the Communist Age, the social status of the profession, the low salaries etc.), it can be noticed that few Romanian librarians go beyond their routine work and are concerned about their own professional development. From these, an even smaller number shows interest for research and writing in LIS domain - and this is demonstrated, among other, by the fact that there is a small number of specialty publications with a significant value and continuity or by the low attendance of Romanian librarians at important international conferences.

Furthermore, with some exceptions, the implementation of the new technologies and new digital information tools in the Romanian libraries wasn't sustained by a coherent approach to harness their potential, by a sustained effort of professional development adapted to their specific. Our librarians are too less prepared for the challenges of the contemporary society, where electronic information plays the most important role. Romanian librarians are far from adopting a modern approach, in which digital literacy of the users became a problem of the library: in many cases, they can't even propose themselves to fulfil this task, because they have not learned the contemporary alphabet of the information yet. The need for continuous professional development is, in this case too, obvious.

Another finding is that Romanian librarians have a low wish of professional cooperation and communication: in many cases prevail the isolationist tendencies, with no dissemination of the examples of good practice. Existent professional communication instruments, either traditional (journals) or online (professional associations' websites, blogs, mailing lists etc.) have, most of the times, a unidirectional specific, being characterized by an almost absent feedback, intellectual interaction, and debates about current ideas and themes.

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### Online information and communication sources and tools in Romanian librarianship

*Libraries' websites* have increased in number and developed dramatically in recent years in terms of design, functionality and content. Some of them have developed organized collections of links to other available Web sources, including Romanian and foreign sources in librarianship.

*Professional associations' websites* are valuable information sources. In parallel, the two big professional associations - Romanian Library Association and The Association of Romanian Public Libraries and Librarians - are managing their own blogs.

*Librarianship blogs* have significantly increased their number in the past two years (*see Coravu, 2007, for blogs inventory in that moment*) and continue to increase, the most consulted ones being the collective blog ProLibro - [prolibro.wordpress.com](http://prolibro.wordpress.com) - and the Romanian Library Association's blog - [proiectabr.wordpress.com](http://proiectabr.wordpress.com).

*The mailing lists* on librarianship topics can probably be counted on the fingers of one hand. The most known is Biblos mailing list, managed by Central University Library "Mihai Eminescu" - [www.bcu-iasi.ro/lista\\_biblos](http://www.bcu-iasi.ro/lista_biblos).

A few *specialty journals* offer online access to the table of content and/or full-text of the articles: *Studii de Biblioteconomie și Știința Informării/Library and Information Science Research* - [www.lisr.ro](http://www.lisr.ro) (access to full-text), *Revista Română de Biblioteconomie și Știința Informării (Romanian Library and Information Science Review)* - [www.abr.org.ro/rbbsi.html](http://www.abr.org.ro/rbbsi.html) (access to full-text, with one year embargo), *Philobiblon* - [www.bcucluj.ro/philo](http://www.bcucluj.ro/philo) (access to the table of content) etc.

Web addresses collection *Resurse pentru biblioteci școlare și CDI-uri (Web Resources for School libraries and Centers of Information and Documentation)* - [delicious.com/biblioteciscolare](http://delicious.com/biblioteciscolare) - developed on [del.icio.us](http://del.icio.us) platform, is highly used, showing the success that this type of Web 2.0 tool can have.

### The portal - a "Web-based service environment"

Looney and Lyman define Web portals as "*systems which gather a variety of useful information resources into a single, One stop' Web page, helping the user to avoid being overwhelmed by 'infoglut' or feeling lost on the Web*" (Lakos, 2004, p. 9). Simplifying, the Web portal is a site that represents a check point for a certain user category, a starting point for their Internet browsing.

Another portals aspect is the possibility of customization: "*a portal is a Web-based tool that provides a customizable interface to information aggregated from a variety of sources*" (Maloney, 2004, p. 12). Customization is the way by which end users obtain Web resources appropriate to their needs, based on an identification and authentication system (Lakos, 2004, p. 9).

### The purpose and objectives of creating a Romanian Librarian's Portal (*Portalul Bibliotecarilor din România - PBR*)

Creating a portal for Romanian librarians starts from the necessity of giving them a stimulating environment for professional development, both for self-improvement and communication/cooperation. This implies knowledge of their own professional environment, of the domain's information sources, idea's circulation, library projects and initiatives of modernization, persons and institutions with similar preoccupations. A dedicated online environment, as a starting point for better knowledge and investigation of specialty information, could represent an important stimulus for librarians to improve their theoretical knowledge and practical abilities.

Here are some PBR objectives:

- promoting online professional communication instruments (blogs, mailing lists, forums) for increasing their usage;
- increasing the visibility of the online Romanian specialty publications (newsletters, journals, fundamental works, methodologies etc.);
- development of the online information offer

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in LIS field, by making available in electronic format (using digitization) other Romanian specialty publications than the ones available on the Web at this moment, with the respect of the copyright;

- increasing librarian's level of information literacy, by making available online tutorials for finding, evaluating and using of information on electronic support;

- making available, in a structured manner, the norms and legislation applicable in LIS field;

- disseminating information regarding the scientific events in LIS field, on national and international levels (creating and updating an agenda of this events);

- disseminating information regarding fundamental and applied research in LIS field, by identifying and reporting finished or developing research projects;

- identifying the webpages of the libraries, professional associations and Romanian education institutions in LIS;

- identifying and reporting the scientific databases subscribed by Romanian libraries;

- offering practical information: creating an advertising zone for job announcements, educational offer of LIS faculties, supplier's offers of library products and services (for example suppliers of publications, databases, library furniture, integrated library systems) etc;

- making available some options for customizing the portal, according to the librarian's preferences.

A portal that means more than a simple link collection, PBR can't be realized without funding. It may represent the subject of a separate project, or it may be integrated as a component of a larger project that aims to improve the Romanian professional development system of librarians.

In case it will be accomplished, PBR will contribute in optimizing cooperation and communication between librarians, in growing the professional development and information literacy, in reinforcing the sentiment of professional affiliation and in growing the visibility of the specialty information sources available online.

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# The role of reception theories in the formation process of the specialist in information science and in the process of permanent learning

*Rodica Ilie*

## Author

Associate Professor PhD. Rodica Ilie, Faculty of Letters, Transylvania University of Braşov

## Abstract

Curricular reform within pre-university and university education entails positive changes within the education plans. In line with Quality Reform, the Theory of Literature, the Theory of Reception and the Reader-Response Criticism should be included within the complex system of collateral sciences, of communication sciences encompassed by Humanistic sciences. Post modern culture entails and its representatives emphasize the importance of the systemic and inter-disciplinary perspective. The Study submits several methods identified within the theories of reception and in the theories of permanent education, with successful application to the Theory of Literature. These methods result in the development of interpretation aptitudes and intellectual processes involved in the critical analysis and synthesis activity and in the rewriting acts. The further inclusion of models taken from pedagogy will stir up and motivate the students to approach and deal with change in a positive, constructive manner, to participate in the critical and intercultural dialogue and likewise to nurture a self-aware attitude.

**Keywords:** *higher education; library; infodocumentary process; university strategy*

Reforma curriculară în cadrul educaţiei preuniversitare şi universitare atrage schimbări pozitive în cadrul planurilor educaţionale. Pe linia trasată de reforma calităţii, teoria literaturii, teoria receptării şi critica de tip „reader response” ar trebui să fie incluse în sistemul complex al ştiinţelor colaterale, al ştiinţelor comunicării, cuprinse în ştiinţele umaniste. Cultura postmodernistă implică, iar reprezentanţii săi accentuează importanţa perspectivei sistemice şi interdisciplinare. Studiul propune câteva metode identificate în cadrul teoriilor receptiei şi în cadrul teoriilor educaţiei permanente, care pot fi aplicate cu succes Teoriei Literaturii. Aceste metode au drept rezultat dezvoltarea aptitudinilor de interpretare şi a proceselor intelectuale implicate în analiza şi sinteza critică şi în actele de rescriere. Incluziunea adiţională a unor modele preluate din pedagogie îi va stimula şi motiva pe studenţi să abordeze şi să trateze schimbarea într-o manieră pozitivă, constructivă, să ia parte la dialogul critic şi intercultural şi, de asemenea, să cultive o atitudine de încredere în sine.

**Cuvinte-cheie:** *învăţământ superior; bibliotecă; proces infodocumentar; strategie universitară*

In this paper my aim is to identify several adequate methods for the study of the Theory of Literature from the perspective of the theories of reception as well as of the theories of permanent education necessary for students as well as for graduates in Information Science, Library Sciences and Letters to a larger extent. The acquisition of the metalanguage of literary theory and of the theory of reception is based on the understanding of its fundamental concepts, from a critical-participative perspective, in accordance with the objectives of the curricular reform from pre-university and university education. Adapting literary research to these objectives imposes the integration of such disciplines as Theory of Literature, Theory of Reception and Reader-Response Criticism into the complex system of collateral sciences (the history of literature, literary criticism, history of ideas), of communication sciences but also in the broader field of humanistic sciences (aesthetics, history, philosophy, political sciences, art). Postmodern culture triggers such a complementary, interdisciplinary perspective also exerting, on the Theory of literature, essential mutations, an adjustment in the manner of relating to its conceptual system, to its forms/types of discourse (e.g. Jonathan Culler, St. Santerre-Sarkany).

The systemic and complementary approach to the Theory of Literature is chiefly motivated in the context of concept migration, of the mobility of operational vocabulary, of bilateral discursive contaminations both from the Theory to the psychology of reception, aesthetics, philosophy, sociology and in reverse from speech-act theory, pragmatics, history of ideas and mentalities, from cultural studies towards literary sciences. Consequently, the hybridization of theories, the eclecticism of perspectives, as symptoms of postmodern thinking, are also reflected upon the process of understanding and teaching literature and literary theory, communication theories and theory of culture, generating the adjustment of didactic structures, tailoring the educational model in accordance with the new requirements of curricular opening, in conformity with the real necessities of applicability and of operating with these competences. A discipline which traditionally was pedagogically oriented towards

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the integrating, totalizing and structured comprehensiveness of the formal problems defining literature, the theory, in the modern didactic acceptance, no longer has the pretence to exhaustiveness and absolutism (capital shift which was signalled, among others by Murray Krieger, Jonathan Culler, Mircea Martin, Marcel-Corniş-Pop) but focuses on comparative systematizations, on the complementary, theoretical-practical analyses of content. This endeavour should be principally aimed at in the context of pre-university and university reform of education and the devising of didactic activities, the configuration of strategies and teaching-learning methods, elaboration of evaluation forms will undergo a natural process of adaptation to the objectives of current education. A defining aspect of this process consists in the perspective of the interdisciplinary approach to contents and presupposes both the development of the capacity to critically assimilate concepts, theories and specialized metalanguage and, moreover, the stimulation of explorative knowledge, of enquiring thinking by means of pedagogic practices which pursues comprehension in its dynamism, in working with the texts, categories and theories that have already been presented. Hence, the most efficient manner of achieving these objectives is either turning the academic lecture into an interactive course or permanently relating the student's role of listener to that of speaker, a scenario which can materialize both within course sessions - if students have been previously informed of the thematics of the following debate or if they have been given handouts, a schematic presentation of the issues under examination - and predominantly within seminar debates. These learning situations reorient the student from the exclusively assimilatory practices to the creative ones, understanding the theory by means of examples that students themselves are urged to select or produce, by means of refinements and reinterpretations, even by producing excesses/false leads of interpretation, errors and revaluing, all these leading to the fashioning of opinions and to the comprehension based on the interplay of ideas in dialogue.

The positive effects brought about by approaching the theory of literature from the

perspective of reception theory are very important not only at the present moment but also in the long run. I shall illustrate some of them in the following.

1. In the theory of reception, of aesthetic effect, elaborated by H. R. Jauss, Wolfgang Iser, the first advantage consists in positioning the reader as an active factor, as a factor of decisional importance in the contract with literature, with the field of cultural production. [1] In the theory of reception what is mainly taken into consideration is this centrality of the human factor in the production of meaning process: author and reader are brought into a trans-temporal dialogue. *The aesthetic distance* and *the horizon of expectations* become tangent, they converge, confront or at least approach one another.

2. Forming competences in the area of intellectual work, retaining theoretical models, operating with metalanguages centre the current didactic practice mainly on *revaluation* and *reinterpretation*, on the critically assumed act. Hence students will realize that beyond the modular ordering of information, beyond the reading duty and the technical character of learning, the competences aimed at / formed by means of literary theory are in fact *conditions for the understanding of cultural dynamics*, not only of the literary one, there are competences that transcend the sphere of humanistic disciplines, intellectually involving the subject in cultural debates, stimulating the force of argumentation and the audacity of visions. The theory - in the project based on Reader-Response Criticism and on flexible, open, critical and creative didactic structures - puts forth a double dynamic perspective: founded on abstractions, it incites to a reformulation of the 'strong categories' of literature, to a speculative dialogue which could *seem* arid and impersonal; motivated by the evolution of forms, by the mutations occurring at the level of sensibility, it will equally be dynamically oriented due to oscillations in taste (occurring in the field of the aesthetic) due to the transformations and variations of the critical spirit (imposed by the theoretical-philosophical discourse, by the speculative-dogmatic history, by the history of ideas).

3. Therefore, it has to be subjected to a

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contextual and interdisciplinary reformulation. Through the advantages brought about by the theory of reception, literary theory presently emerges as a sum of theories, as a pluralist metadiscourse with reverberations outside traditional disciplines, as a science of an incomplete adventure, always under the influence of the renewing artistic forms, of refining methods of analysis, of modulations of perspective/taste/critical spirit.

### The theory of literature (as theory of reception) - a formative discipline

Regarded from these perspectives, the theory of literature becomes a discipline that liberates itself from the apparent pretence of self-sufficient existence, adjusting its research object and methods, it will endeavour to achieve more concreteness, not necessarily to function in an observing, evaluative and categorical manner *but get involved in the cultural dialogue, in the issues and dynamics of humanistic sciences and not only, supplying a metalanguage to the sciences of communication, to art and advertising, to social sciences and to the history of ideas, applying its very fundamental practices, the critical-ordering, hermeneutic and creative procedures, 'contesting "common sense"' and questioning the stereotypes of reasoning generated by the literary/ humanistic research: 'In its role of "common sense" criticism and investigation of certain alternative notions, the theory entails questioning the fundamental presuppositions and premises of literary study, overturning any idea that could be taken for granted' [2] We mustn't overlook the fact that, at the beginning of the 20<sup>th</sup> century, the writers themselves would instate this spirit of dialogue between literature, arts and theoretical speculation: the Avant-garde writers, on the one hand, and then a Paul Valéry, a T.S Eliot would merge theory with art; Ezra Pound initiated us into the *ABC of reading*, leaving a lesson on the history of forms, a pedagogy of reception and of literary value production in just a few pages; Fernando Pessoa, in a testament-like letter, unveils the genesis and theory of heteronyms, automatically imposing a vision on the fractionate representation of literature/culture.*

The theories of impersonality/ depersonalization of the poetic instance, owe these modern poets-theoreticians the fundamental models (the theory of the objective correlative, of the *personae*, of heteronyms). That is why I sought that the fragments allotted for seminar study in the section that the theory of literature devotes to the literary work-biography relationship, artistic ego (fictional, metaphysical)-empirical ego (real, biographical), Model Author (understood by Umberto Eco as a textual strategy imposed by the writing) - biographical presence, illustrate this process (of *depersonalization*, as illustrated by the French modern poets analyzed by Hugo Friedrich, of *dehumanization*, Ortega Y Gasset or of the 'death of the author' according to Barthes' expression) not only conceptually but also through materializations of these equivalent concepts drawn from the work of Baudelaire, Rimbaud and from Mallarmé's letters. Hence, a heuristic conversational framework has been created, aiming at establishing the border between *person/persona*, thus making the difference between the individual's biography and the biography of creation, between the documentary value self-portrait and the spiritual-poetic one become manifest.

These concepts' appropriation was based on the problematization method, on the comparative analyses of the instances of the *subject* in Romantic literature, in the poetry of Modernism and in that of the poets of Biographism, on discerning the differences between masks put forth by every poet, on acknowledging the fact that literature projects existence patterns creating several mechanisms for the representation of the self. Poetry or poem in prose, letters or journal pages, literary manifesto or plain anecdotes can become didactic material used to operate nuance distinctions aimed at understanding the relationships that literature activates between writer and literary work, between writer and his/her fictional-poetic projections, between writer and audience, between writer and his/her epoch, between writer and posterity.

The triumph of reading and interpretation practices is based on the readers' double orientation, on either guided alternation or on one which is voluntarily assumed as a methodical exercise of two stages: "naïve absorption and

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critical performance, participation and self-reflection.” [3] Starting from these assumptions, students have been asked to respond to tasks having a progressively generating effect in succession with the tutor’s precise and specific intervention in their way of reading and comprehending the chosen texts to be debated. If at the beginning they were given liberty in text reading, in the following seminars, reading was guided through questions thus raising interest and focusing attention on certain issues, requiring comparisons between texts/views/categories/ideas/theories. [4] Stating the objectives of reading ensures the success of the didactic act, thus from *selecting, quoting, reformulating*, students will be guided, by means of debate, to *explanation, conceptualization, argumentation, classification*, so that, through the reflexive act stimulated by pair/small-group work or by individual research (in a specified amount of time), students be able to *apply* and *transfer* information and even to *elaborate* new perspectives, hypotheses, theories, to *invent* categories, operational systems, literary phenomena descriptors.

Another method which is adequate for theory of literature didactics, employed for the systematization of reception theories and for familiarization with reader typologies and manners of reading, had as starting point, the elaboration of an essay on the subject of “I, the reader”, bearing the same name as the title of Ioana Em. Petrescu’s study (an excellent archaeological study of the writer-work-reader concepts, a study of cultural history examining this equation and its mutations from the Middle Ages to Postmodernity). *Students have been asked to evaluate themselves as readers* in various situations, to render an as honest as possible image of their personal reading manner - preferences, encountered obstacles, renouncement - and finally, to write a short intellectual confession in which they would disclose their reaching/or failing to reach that “reading conscience” stirred up by a revelatory experience triggered by a certain work/character. The results of these essays (partially communicated during the seminar) have allowed not only the investigation of individual preoccupations, analyses of the manner of

choosing a book, of the motivations and objectives of reading practices, but also the initiation of debates, involvement in problematization thus becoming possible for students *to make a critical evaluation of their own reading experiences, to become aware and afterwards generalize*, based on their observations, the difference between the *presumptive reader* and the *real* one, between the *intended reader* and the *virtual* one, between the “*alter ego*” reader and the *inner* one. The correlation with the categories comprised in Prof. Paul Cornea’s typology could have been also motivated in this case by the desire of self-knowledge not just by a didactic prerequisite, involving the student in an exercise of recognition and identification with his specific roles of aware and active reader. All these stages of exploring, of self-search in the guise of reading consciousness be it ingenuous or motivated, inexperienced or specialized, initiated or deformed by prejudice (the “*guilty conscience*” of the modern reader in Ioana Petrescu’s view or *unfaithful* according to Nicolae Manolescu) will prepare the moment of natural and apparently spontaneous assimilation of classifications and typologies devised by semiotics and communication studies (Umberto Eco), by reception theories (Wolfgang Iser, H. R. Jauss, St. Santerres-Sarkany), by the theory and practice of reading (Paul Cornea), by identification criticism (Georges Poulet, J. P. Richard, J. Starobinski), by hermeneutics and philosophy (Paul Ricoeur, Gianni Vattimo, Susan Sontag). These methods, founded on *complementary and alternative didactic procedures, on inductive-comparative, analogical and practical learning models, involve the educational process, stimulate interest, motivate and eventually coordinate didactic and discovery activities which would reveal the mechanisms on which the success of understanding and interpreting any type of literature and its theory is dependent on.*

Only in its museum state should the modern didactics of literary theory preserve the *dogmatic* or *expositive* method (the terminology pertains to J.Vial, *Histoire et actualité des méthodes pédagogiques*, 1987), which blocks students’ intervention, given the fact that, in this

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pedagogical practice, the dominant role is held by the teacher, the absolute holder of truth. However, there are contents, theoretical models, critical methods which cannot be assimilated through inductive activity or through the direct recourse to the student's previous knowledge. Alternating expositive and *Socratic* procedures, based on dialogue and collaboration, on the student's active involvement in the discovery of contents will confer dynamism to the educational process, will facilitate the understanding and retaining of theoretical issues (of genre theory, history of forms, stylistics and poetics, for instance). Literary theory modules which work towards the understanding of such operational concepts as "poetic language"- "scientific language", "transitive"- "reflexive", tradition-innovation, functions of language and communication, forms and functions of literature, "un-familiarization", "literariness", "auto-referentiality", "literary canon", "anti-canon", etc. can benefit from *an alternative and complementary methodological approach, involving the student in a heuristic, cooperation-based activity. These composite scenarios will be based on active and non-directive methods, adequate for the critical and creative assimilation of knowledge.* As Roland Barthes [5] claimed, "the stake of the literary work is that of no longer turning the reader into a mere consumer but into a text producer", in fact into a culture producer. According to Wolfgang Iser's view of the precepts of reading theory - the ideal of promoting an active reader model, a reader capable of filling in the gaps of the text, of rendering coherence through his/her own liberty to build perspectives, refashioning order and generating meaning - the didactics of literary theory chiefly aims at *forming and transforming the reader* through complex activities pursuing the development of intellectual work skills, the exercise of critical aptitudes, of interpretation abilities, of argumentation routine and of taking responsibility for the supplied content / critical perspective, the stimulation of research team activities, the acceptance of divergent opinions and the cultivation of the critical-cooperative spirit. [6]

Apart from the critical and theoretical texts that they write during the didactic activity and which afterwards will of course have to produce

throughout their career, students are stimulated and led towards enacting practical, creative abilities by devising functional texts (such as the announcement, the advertisement, the poster, the cultural event chronicle), poetic texts (creative writing exercises, practising un-familiarization in an incipient colour and object poetry), meta-texts (parodic texts recorded/gathered from different cultural environments, critical, polemical texts, etc.), activating theoretical knowledge, style-related and discursive construction issues by transferring them on the concrete level.

From naïve to skilled reading, from the unselective acquisition of information to research and exploration focused on centres of interest, from the instant of identification to transgression, to the reactive, critical and polemical reading manner, to the rewriting and reconstruction of certain hypotheses, to theoretical demonstration and argumentation, the student is asked to learn and to learn to understand, to become informed and formed throughout their entire lives. He/she is required to evaluate and self-evaluate, to work with the text and to raise and solve problems.

In conclusion, the concepts and literary theory assimilation methods have to place students in real, concrete circumstances of dynamic learning based not only on passive observation and information recording but mostly on analysis and self-analysis, on critical reading and interpretation acts. From naïve receiver status, students will be urged to start debates, to become themselves creator of new perspectives. By means of active-participative methods, their interest is focused on current issues (literature and advertising, literature and cinematography, meta-literary rapports, myth-recycling instances, etc.). They are involved in activities having their success ensured by team work (elaboration/application/interpretation of questionnaires on subjects of general or specialized interest - e.g. *Do we still read? What & How do we read? What do we reread?*). Seminar debates will seek to fructify information including through writing essays, studies, research items.

Through reception theory and in its didactic format, the theory of literature chiefly aims at developing interpretation aptitudes and intellectual processes involved in the critical analysis and synthesis activity, in rewriting acts, through the exercise of reading/rereading strategies, by

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stimulating creativity and imagination. The acknowledgement of certain models of pedagogy and reading (based on rereading and on critical and creative rewriting), the critical internalization of complex models of interpretation, the examination and re-examination of one's own reading manners, of one's own comments, opinions, research items *would provide students with the motivation and willingness to react to change in a positive manner, to adapt to the critical and intercultural dialogue through an explorative, self-aware attitude.* Literary theory does not offer only *savoir*-like instances of competence formation but mostly procedural and pragmatic value capacities (of the *savoir-faire* type), which stimulate and structure the genuine dialogue that the reader has with literature issues, with the variety of texts and theories, with the world, and last but not least, with oneself (*savoir-être*, assuming certain attitudes, ideologies, models of thinking/behaviour, styles of argumentation). This way, among its preoccupations, the theory of reception practice has not only the formation of competences and the stimulation/detection of skilfulness but also the acknowledgement of the fact that by trying to disclose the routines/clichés of the discourse of criticism, by interrogating theoretical conventionalisms we acquire a more informed and authentic manner of relating to aspects of culture in general. By means of the theories of reception, literary theory as creator of "meta-capacities" (Ph.Perrenoud, P. Martin-Peris) offers the possibility to assume a *modus operandi* which becomes a defining super ordinate capacity of the subject willing to adopt the intercultural dialogue. To a large extent, the active and interdisciplinary didactic strategies also ensure the achievement of these objectives.

Reformulating René Wellek's claims according to which the object of the critic's preoccupation is the literary work which "is not just impregnated with value but it is itself a structure of values" [7] concluding, we might state that the essential preoccupation of literary theory and of its didactic materialization is the transformation of purely speculative, self-sufficient value of the theories/theoretical systems devised so far into a *net of formative-informative functions*, into a *value* which is merged with the Postmodern performance of

dialogic thought, of trans-disciplinarity and multiculturalism.

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1. The problem of the reader has been studied with increasing interest starting with theoreticians grouped around the so called School of Konstanz. Among those there are Hans Robert Jauss, Wolfgang Iser, K. Stierle and H.S. Gumbrecht. Their research brings forth a new approach to the study of literature from the perspective of literary history considered from the point of view of reader involvement. Now it is the reader that endows literature with a much more credible organization, ensured first and foremost by the chronology and practice of reading, receptors have the ability to respond in a differentiated manner to what literature offers by its visions. The concept that Jauss defines with the "horizon of expectation" syntagm, will systematize both the subsequent activity of writers who address a more or less visualized or contemporary public, and the retroactive hermeneutic act of readers who go through a process of (self) discovery or re-discovering (in) the works of the masters of time past. Are these novels, poems or dramatic texts of the Antiquity or of past centuries still congruous with a ever remodelling sensibility? Are *The Iliad, The Odyssey, The Clouds, The Assemblywomen, The Aeneid, Divina Commedia, The Satyricon. The Life and Opinions of Tristram Shandy* still actual? How much and how, to what extent and with what attitude - full or praise or ironic - do we still relate to them? If we take into consideration the ideas of such poets as Ezra Pound or T.S. Eliot or the defining novelistic art of Joyce in *Ulysses*, we certainly cannot disregard tradition. The latter imposes itself to the present in an organic manner, not testamentary and artificially, because great works have a trans-temporal existence, living in a *simultaneous order* as Eliot pointed out. Thus the modern reader, even caught in the net of new fashions, will only be able to grasp the literary truth by knowing all its facets revealed by this canonical order. His/her reading will be implicitly conditioned by the previous readings and interpretations, because the tradition of literature presupposes, at the same time, a tradition of connotations, unveiled by another tradition, that of reading, hermeneutic and assimilative, which alters our way of acquiring knowledge and imposingly orders our existence.

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3. CORNIȘ POP, Marcel. *Tentația hermeneutică și rescrierea critică. Interpretarea narativă în zodia*

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*poststructuraismului*, translated by Corina Chiron. București: Editura Fundației Culturale Române, 2000, p.376.

4. For example, George Călinescu's theoretical metaphor presented in the study *Tehnică critică și a istoriei literare* - 'failed writer'-type critic - has been subjected to a reevaluation in a comparative debate with the theoretical metaphor put forward by Matei Călinescu in the essay *Gânduri despre critica literară*: "If the poet has got wings, that he flaps spectacularly, roams over infinite spaces, the genuine critic, treading soberly on science's geometrical boulevards, has, beneath his modest appearance, wings grown inwards, wings that spread in the world of ideas and which allow him to reconstitute, on a different level, the poet's mysterious itinerary." *Aspecte critice*, EPL, București, 1965, p.328-332.

5. S/Z, *apud* Corniș-Pop, cited work, p.7

6. For instance, the collaboration, simulation and project learning methods are extensively concretized within the seminar on literary history and criticism, on schools of thought and the applied critical models, on anti-literature and meta-literature. In the thorough examination of the notion of meta-literature/anti-literature and of their mechanisms, the *non-directive* method, for example, can ensure a stimulating research activity due to its application options: it will concretize either at a differentiated and individual level, students are asked to read a meta-novel selected from a series, then they write a review/an invitation to reading or a study of thorough examination and critical interpretation of intertextual and meta-textual practices; or at a collective level, the team/seminar group will construct a meta-text, will write a parody or a pastiche of a folk tale, a story or a novel. The activity can unfold within a single didactic unit if the task involves rewriting short narrative species, accessible poetic forms, including their concomitant, immediate recording (otherwise the spontaneity and cooperation, the play of free associations dilutes - e.g. rewriting the fantastic folk-tale pattern following Propp's monotype structure was successful only when students were aware of their not being recorded); with extended forms, work would be dispersed throughout an entire semester or even more, the results of the team however, being periodically evaluated.

7. *Conceptele criticăii*, Univers Publishing House, București, 1970, p.70

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# Using the Computer Assisted Learning Method in Romanian Education

*Mariana Norel*

*Andreea Ramona Laurențiu*

## Authors

**Assoc. Prof. Dr. Mariana Norel**, “Transilvania” University of Brasov, Faculty of Psychology and Education Sciences

E-mail: *mariana.norel@gmail.com*

**Assist. Assoc. Andreea Ramona Laurențiu**, “Transilvania” University of Brasov

E-mail: *laurentiu\_andreea@unitbv.ro*

## Abstract

Are the Romanian teachers prepared to use the computer in education? The present article is a case-study for the Romanian education system, mainly for the Brasov district concerning how the CAL method (Computer Assisted Learning) is used in schools, high school/colleges and university. Taking in account that the Romanian educational system recorded in the last ten years, a significant increase in interest in using new Information and Communication Technologies (ICT) and implementation of Computer Assisted Learning (CAL) in the educational process we report the opinion of 127 teachers from 17 different disciplines about their opinion about computer use in education, computer use ability, courses attended, programs they use in education, how often they include the CAL method in the didactic strategy, Internet use and the frequency of CAL method use at humanistic and realistic subjects. We argue about the present state of computer use in education and its implications.

**Keywords:** *Computer Assisted Learning (CAL); Information and Communication Technologies (ICT); education; teaching method; computer use ability*

Sunt profesorii români pregătiți să utilizeze computerul în educație? Articolul de față este un studiu de caz pentru sistemul educațional din România, în special pentru județul Brașov, privitor la maniera în care metoda CAL (Învățare Asistată de Calculator) este utilizată în școli, licee/colegii și universități. Luând în considerare că sistemul educațional din România a înregistrat în ultimii zece ani o creștere semnificativă a interesului manifestat pentru utilizarea noilor Tehnologii de Informare și Comunicare (ICT) și pentru implementarea Învățării Asistate de Calculator (CAL), în cadrul procesului educațional, considerăm demnă de inserat opinia a 127 de profesori, care predau 17 discipline diferite, referitor la utilitatea computerului în procesul educațional, la frecvența includerii metodei CAL în strategia didactică, la utilizarea Internetului și la frecvența utilizării metodei CAL pentru subiectele umaniste și respectiv realiste. Sunt luate în discuție stadiul actual al utilizării computerului în educație și implicațiile care decurg.

**Cuvinte-cheie:** *CAL (Învățare Asistată de Calculator); Tehnologii de Informare și Comunicare (ICT); educație; metodă de predare; abilități de utilizare a computerului*

## 1. Conceptual demarcations

The Romanian educational system recorded in the last ten years, a significant increase in interest in using new Information and Communication Technologies (ICT) and implementation of Computer Assisted Learning (CAL) in the educational process (teaching-learning-assessment), which led to a new approach to teaching - ICT and CAL facilitating the transition teacher-centred learning to pupils/student-centred learning. Knowledge-based society of the 21st century, proposes the creation of flexible learning systems, which exploit the potential of pupils/students preparing them for the production of knowledge through research and continuous innovation.

A significant point of the reform in Romanian education was the launching in 2001 by the Ministry of Education and Research and support by the Romanian Government Educational of the Computerized Educational System that first aims to support the teaching - learning-assessment in pre-university education with the latest technologies, facilitating the access of students and teachers to new technologies of information and communication.

Specialists in the field define Computer Assisted Learning in varied, highlighting, each time a different side of the concept.

Adrian Adăscăliței formulates a definition closer to the definition given by Sorin Cristea in Dictionar de pedagogie (2002, p. 196): Computer Assisted Learning “is a teaching method that combines the principles of cybernetics modelling and analysis of training in the context of the communication and information technology use. Method meets the following organization information, solving tasks of teaching, the summary of summaries, provide additional exercises to stimulate creativity and cognitive a student”.

In the broadest sense, Computer Assisted Learning defines any event which aims to teaching-learning-assessment in the formal education using a computer and specific applications, so we can say that is a synthesis between the educational resources and training program available computer technology.

Panțuru S. (2008, p. 181) considers the method of Computer Assisted Learning as “a true revolution for teaching methodology and

technology. It has produced and will produce major changes not only in technology but teaching and also in design and educational policy”.

In the opinion of the pedagogues Cerghit I., Neacșu I., Negreț-Dobridor I. and Pânișoară I. (2001, p. 99) the CAL method advantages are: economy of time, achieving cognitive facilities for simulation of phenomena, processes action, developing skills to use the computer, and the opposite, the disadvantages are that the method is costly disadvantage to achieving practical, can not replace experience and laboratory experiments or field and weakens human relations and social.

## 2. Presentation of the Study

Having experience of courses and laboratories of the Computer Assisted Learning subject and discussions with students and teachers, we asked if the CAL method (Computer Assisted Learning) is used in schools in the county and its particular use and to find out how the computer mediates the information in education.

The case-study has as main objectives:

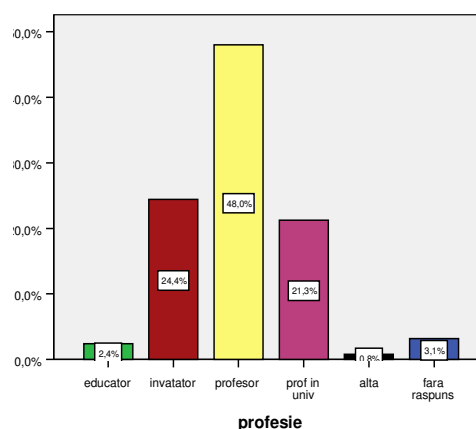
1. analysis of declared state of the informatics ability at teachers;
2. identification of operations and programs used in the classroom by the teachers;
3. discover the relation between informatics ability-courses attended- the use of computers in education.

For these objectives we developed a questionnaire with 16 items containing a total of nine items with dual or multiple choices and seven open responses. The data collected during December to April 2009 were coded and analyzed using computer program SPSS 14.00.

This questionnaire was applied to a lot of 127 teachers for 17 different disciplines from the counties of Brasov, Covasna and Prahova: 48% teachers (in elementary schools, high schools/colleges), 24.4% of teachers in primary schools, 21.3% university professors, 2.4% educators teachers in pre-schools, and a percentage of 3.1 not stated (see Figure 1).

The lot distribution to the criterion gender is as follows: 78.2% female, 13.5% men and 10.3% of the participants have not responded. 45.2% of teachers working in elementary schools, 22.2% at the university, 21.4% in high schools and colleges, 4% in kindergarten, and 7.1% not stated. Length of service - codified into time intervals: 4.7% (1-3 years), 6.3% (3-5 years), 18.9% (5-10 years), 26.8% (10-20 years), 21.3% (20-30 years) and 15.7% over 30 years, and 6.3% refused to complete this item. So the length of employment with the greatest frequency is between 10-20 years.

Figure 1. Teaching professions in the investigated lot



## 3. The results of the study

The study results are satisfactory, showing that the questioned teachers have a lot positive side of technology and are sufficiently trained to use computer in teaching. Analysis of teacher's responses to the questionnaire showed that 94.4% versus 3.2% of teachers are in agreement with the use of computers in learning, so they agree with the method Computer Assisted Learning. Of these, only 76.6% use the computer to conduct lessons/courses, and only 51.6% is used in evaluation.

Attitude toward computers is generally positive, and perceived impact of technology on teaching activity is beneficial (73.2%). It should be noted that 81.9% of teachers surveyed say they have had at least one time out of technology. We

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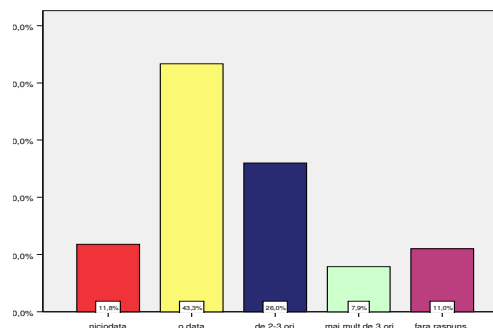
interpret this result as recognition of their limitations and the impetus to learn how to use new technology.

Most teachers (81.9%) attended courses on computer use and they think that ability to use the computer should be formed mainly in continuous training (94.7%), but the percentage is very high and for Initial training (90.8%); 27.56% of teachers considered that the computer use skills can be developed in initial training and improved in continuous training. 64.6% of those polled say that the ability to use the computer is average, and 22.8% declare advanced, 11% say poor ability, while 1.6% have not mentioned it.

Correlating the use of the method CAL in the didactic strategy and the ability to use the computer we have discovered that the teachers with poor computer use ability tend not to use the CAL method 5.5% use it once and 1.6% use it 2-3 times. Teachers with average computer use ability (these are the most for our lot) use the CAL method 25.2% once, 21.3% use it 2-3 times and 3.1% use it more than 3 times. On the other side, teachers with advanced computer use ability use the CAL method 11% once, 3.1% use it 2-3 times and 4.7% use it more than 3 times. For never use the CAL method we have biggest percent for the teachers with poor ability (3.9%) and for using frequent the CAL method the biggest percent have the teachers with advanced computer use ability (4.7%). So, we can affirm that there is a significant relation between the frequencies of the computer use in classroom and the teacher's ability.

An important point of research is the frequency of inclusion of the CAL method in the teaching strategy, as can be seen in Figure 2., 43.3% of teachers using the method at least once a week, and almost 34% using the method of than twice. This percentage is consistent with that of teachers who said they use the computer in teaching daily.

**Figure 2.** Frequency method used in teaching CAL



In respect of applications used by teachers in the classroom presentations are preferred: MO PowerPoint 98.6%, following M.O. Word 39.37%, Lessons with AEL 20.47%, M.O. Excel 16.53% and 33.07% use another programs that include: educational software, specialized software, educational movie players, dictionaries and encyclopaedias.

**Table 1.** Use of the Internet for teachers

<i>Internet Use</i>	<i>Often</i>	<i>Medium</i>	<i>Rarely</i>	<i>Not at all</i>
Source of Information	65,6%	10,7%	13,9%	4,1%
E-learning platforms	7,4%	13,1%	15,6%	6,6%
Online Courses	2,5%	7,4%	10,7%	71,3%
Virtual Simulation	1,6%	0,8%	1,6%	86,1%

In the table attached Table 1 are presented the percentages for the frequency of Internet use in the search for educational information, e-learning platforms, online courses and virtual simulation. Observe that the main function of the Internet access is "storage of information" and

too little for what we believe will be the future of Computer Assisted Learning – e-learning platforms.

Grouping the 17 disciplines in humanistic and realistic subjects and comparing them with the use of computer in classroom we observed

that the humanistic subject prefer the CAL method. For once using the method the difference is significant 16.9% for realistic subjects versus 38% for humanistic subjects; for using the CAL method 2-3 times we have 8.5% and 12.5% but for more than 3 times we have the same percent 2.8%.

In very large proportion (92.9%) teachers shall agree that the CAL method is approved by pupils/ students, where 6.3% have not responded to item. On this item have answered teachers who said they did not use the method, too and stress that this is really attractive to students. It can be partial explained by the student's free time activities/hobbies. However, receptivity to this method should be seriously considered and correlated with the valences of this training method.

97.6% of teachers say that the institutions they are working are equipped with computers, unfortunately, are not sufficient (only 29.6% of institutions have more than 40 computers) to enable teachers to teach computer assisted. Insufficient equipment is one of the main obstacles reported by teachers.

If the most frequently described benefit by teachers surveyed is presenting information in an attractive and constituted the main disadvantage is their dependence on computer, then for a quality education will be considered the time and frequency allocated to this method.

#### 4. Discussions

Curriculum reform, by providing the central location to students and emphasis on skills development has facilitated the "popularization" of CAL method. Need to reach International and Europeans standards propose the method for its usefulness and attractive manner for learners. Also, a good teacher not only has competences in specialization domain and psycho-educational, but also computer skills.

As a result of this study, the attitudes of teachers to use Computer Assisted Learning in teaching is a positive and open. As it emerged from the study, there are many educational institutions which do not have the necessary facilities. So, not having access to laboratories,

classrooms or computerized equipment moving, can not use CAL.

We find that with the introduction of Computerized Educational System have created opportunities for equipping schools with laboratories and courses for teachers. Achievement is reflected in the results; most teachers have benefited from these courses and are able to implement skills acquired information. We suppose that continuing equipping the schools with computers and training teachers to use the computer the quality of education will increase.

The critical points of the study are represented by the number of the persons investigated. In order to generalise the results for the entire Romanian educational system we should to extend the study to others counties from the country. Then the social desirability effect may occur and influence the responses of the teachers even thou the questioners were anonymous.

Computer Assisted Learning method has a defining impact on the organization and conduct educational activities, and becoming increasingly a subject studied in pedagogical research. This case-study becomes a starting point for investigation and practical training valences of method CAL in Romania and will guide us in future efforts.

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## ■ A Synergetic Approach to Creating an Informational Infrastructure at “Dunărea de Jos” University of Galati, Romania ■

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*Mioara Voncilă*

*Ion Voncilă*

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### Authors

**Mioara Voncilă**, “Dunărea de Jos” University of Galati, Library Manager

**Ion Voncilă**, academic at the “Dunărea de Jos” University of Galati, Faculty of Electronics and Electrical Engineering

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### Abstract

In a first stage, the paper approaches notions pertaining to information literacy, discussing particularities of the modern world, a world where information plays an important role. To organize an ocean of information - wherein the human being finds itself - claims a synergetic approach to structures of information production, processing, transmission and storing. Since libraries play a major part in the processes of information trafficking, the paper also revisits the numerous (global) attempts to create a genuine information literacy. A second stage of the paper presents - as a study case as well as a new way of approaching information literacy, within a relatively restricted space, i.e., that of a university (an academic community) - the way to create an informational infrastructure based on synergetic principles.

**Keywords:** *information literacy; synergy*

În prima parte, lucrarea abordează noțiuni aparținând culturii informației, punând în discuție trăsăturile specifice ale lumii moderne, în care informația joacă un rol important. Pentru a organiza un ocean de informații - în cadrul căruia ființa umană se regăsește - este necesară o abordare sinergică a structurilor proceselor de producere, prelucrare, transmitere și stocare a informațiilor. Întrucât bibliotecile joacă un rol major în procesul de circulație a informațiilor, lucrarea trece de asemenea în revistă numeroasele încercări (la nivel global) de a crea o veritabilă cultură a informației. A doua parte a lucrării prezintă - ca studiu de caz, precum și ca un nou mod de abordare a culturii informației, într-un spațiu relativ restrâns cum este acela al universității (o comunitate academică) - modalitatea de a crea o infrastructură informațională bazată pe principii sinergice.

**Cuvinte-cheie:** *cultura informației; sinergie*

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### Introduction

To provide a human sense to information is the basis and expression of *information literacy*. The development of this information literacy represents an important societal task, both for the time being and for the future. The present-day societal task is to find the way to level individual interests on the one hand with the interests of the companies, on the other hand.

The highly industrialized countries have already extended the technology of information and communication. In accordance with this already existing extension, *it is imperious that the culture of information should reach global dimensions. But a globalization of information literacy requires the models of new methods and new infrastructures*. This culture should not make mainly or exclusively use of western civilization norms and models. *The aim of information literacy is that of granting equal rights to all cultures*. The global development of this culture should, by no means, be defined and focused in relation to a given national territory, because the number of sovereign states is much smaller than the number of nations and cultures developed within these states. The development of information literacy should aim to building a culture not limited within national borders. This does not mean the destruction of minor national cultures, but on the contrary, the preservation of their peculiar elements. A big opportunity of information and communication technologies in the global network is their role of cultural connection, opportunity which should not be abused of. The development beyond national borders does not mean the ignoring of these borders but they do depend upon their being observed, which positively emphasize and protect the features of each people as a cultural heritage. It is desirable to go beyond these cultural borders which always condition an opening to and a collaboration of participants beyond borders. Any imposed communication contradicts itself as being unacceptable. The postulate of a global information literacy should not be understood as an appeal to the uniformization of a world culture [1].

Information literacy should distinguish certain characteristics to meet the following

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minimal terms required by the society:

1. equal participating opportunities;
2. offer correct plural structures;
3. criticism-accepting free informational offers;
4. offers of educational instruction in multiple fields as well as instructional offers;
5. equal distribution of work
6. political vigilance
7. freely accepted ethical requirements.

Information literacy was defined to be “the ability to spot, assess and effectively use the required information” [2]. Information literacy, a product of the informational society, is the key to the on-going education and plays an important role in the higher education system curriculum improving the teaching/learning environment. It has even been characterized to be “the ability to survive in the 21<sup>st</sup> century” [3].

Considering the above mentioned, it is obvious that the new culture is an “integrating system” and the making of this new culture should rely on methods peculiar to integrating systems which show self-organizing abilities - through creative accumulation - against the huge bulk of information circulating in an informational society. Moreover, through the upgrading of all cultures of the human society, information literacy requires the use of cooperative processes to the detriment of the competing processes; they require a continuous creation of values without minimizing the values of other cultures. Informational literacy claims morals, requires the creation of a society based on ethics and such a process can hardly happen without the improvement of all people. These desiderata cannot be reached but *through the synergy* of all individuals in the society and through a dynamic unity of all technologies, and in particular, the informational technologies.

### 1. Synergetics: concepts and models -

#### 1.1 The concept of synergetics

The concept of synergetics was introduced by an inventor architect, Buckminster Fuller, in order to highlight any systematic approach to solve problems, be they technical, economic,

social or environmental. That is why synergetics is a relatively new science with a strong basis and a transdisciplinary character. In his first, second and third volumes of “Synergetics”, Buckminster Fuller shows that synergy and synergetics, its harmonious discipline start from A. Einstein’s thesis regarding the theory of unified field. Extrapolating to other scientific fields (engineering, economics, sociology, etc.) Einstein’s visions in physics with regard to the importance of studying not only the constituting elements of those systems accepted as unitary systems but also accepted as such through the perspective of their connections, relationships and interdependences, Buckminster Fuller accounts for the usefulness of the concept of synergy.

Stuart Brand, referring to the concept of synergy attributed to Buckminster Fuller, shows that a systemic approach preferable to a narrow approach to the designing of any artefact - from simple tools or buildings to human communities [4].

*Synergy* - as it is explained in dictionaries - accounts for the association of several elements in order to accomplish a unitary function or a converging aim. This concept originates in the Greek prefix *syn-* (inside, together with) and *ergos* (energy).

*Synergetics* as an interdisciplinary science, i.e., of elements through the perspective of their connections, links, relationships and interdependences.

It is worthwhile noting that there may exist certain semantic differences between links and connections, as follows:

*links* are used to refer to the union between which is stable and inflexible and it is made through continuity (the relationship of continuity), the features of the first element continue with the features of the second element a.s.o.

*connections* emphasize the fact that the union is made through contiguity (the relationship of complementarity), the relationship is flexible and it can change. For example, the connection is the Internet of the information literacy systems of some different companies.

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## 1.2. Models of synergy

Models of synergy may be found in everyday life. For example, anatomy uses the term synergy to refer to limb synergetic muscles which work antagonistically but which complement themselves and whose function is possible only through their association.

In *A Fuller Explanation*, Amy Edmondson

shows that “Synergetics” represents the study of spatial complexity which may find its applicability in sciences accepted as avant-gardist (astrophysics, cosmogony, etc.) as well as architecture, space or earth structures. Figure 1 shows a geometrical model of synergetic representation (according to the view of Buckminster Fuller, the founder of synergetics).

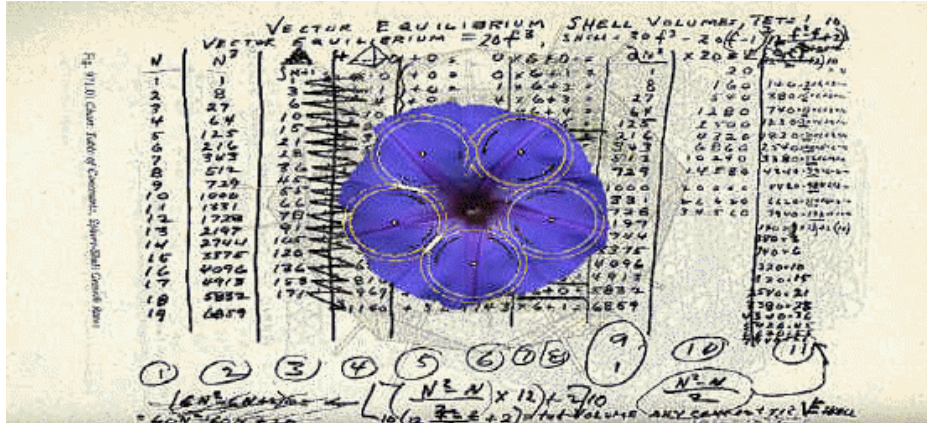


Fig. 1. A geometrical representation of the synergetic model with applications in astrophysics architecture, civil engineering, mathematics, physics, and chemistry [5].

In an abstract perspective, from the mathematicians’ point of view, synergetic systems are optimally economical, omni-rational, and in accordance with nature as Lord Snow describes them in the 1971 Conference in Boston.

Synergetics can provide solutions to both technical engineering problems and to economic problems resulting from the negative effects of pollution and depletion of resources in the natural and implicitly human environment.

It is true that synergetics allows for the approach to some facts, acts or elements through the intermediacy of their correlations leading to the solving of problems from a systemic view.

## 1.3. Synergetics and information

The 20<sup>th</sup> century last decade of technological evolution in the field of informatics and telecommunications highlights the importance - in any kind of activity - of resources of *time and information* as related to the classical ones (raw materials, human, financial). The rapidity of

receiving, analyzing, storing and transmitting of computerized information depends upon the connections of informatics. In turn, these connections of informatics develop relationships and create interdependence between individuals, companies and institutions.

At the same time with the birth of the Internet and the development of telematic technologies, it has become possible for relationships between people, companies, institutions and states to acquire newer and newer dimensions, if compared to the situation existing a decade ago. Informatics *real time* continuous connections between companies, individuals, institutions and technologies have become part of our daily life routine providing efficiency for activities which some time ago used to be both time- and resource-consuming.

New activities such as e-commerce, cyber tourism, and computer-assisted transportation resulted in the creation of new companies and even new fields of specialization. All these activities rely on real time connections, relationships and

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interdependences created through data processing systems.

### 2. Information Literacy and the role of the academic libraries

Librarians, teachers, technologists and some policy makers have recently begun to address the need for information skills training and teaching on all levels of education. All people need to be prepared for life long learning and teaching individuals appropriate information skills will be a major progression in that direction. Information Literacy endeavours are just beginning and more work is needed to understand the complexity, long-term effects and importance of preparing people for effective information work.

Information literacy has become a global issue. There are many information literacy initiatives in North America, Australia, South Africa, Europe and Asia. In education, teachers, librarians and others are working to integrate information skills instruction into the curricula to achieve relevant learning outcomes. Other initiatives involve distance education, research and publication activities related to information literacy.

In *South Africa* academicians and librarians have cooperated to improve the learning environment for the entire population and information literacy instruction has been used as part of the preparation for life long learning.

Academic librarians in *Australia* and *New Zealand* have held several successful national conferences on information literacy organized by the University of South Australia Library and the ALAIA's (Australian Library and Information Association) Information Literacy Special Interest Group. They have also developed strategies to advance information literacy as a profound educational issue for society. Librarians at the University of South Australia have a mandate to ensure that students achieve information literacy. At the University of Technology in Sidney students receive information skills instruction on a regular basis. At the Queensland University of Technology, librarians teach an intensive, advanced course on information retrieval skills to graduate students.

In *Great Britain* academic and school librarians have been actively involved in developing theories and programs related to user instruction and information literacy. The polytechnic universities and schools in particular have experimented with a variety of information skills instruction programs. Among the various methodologies used have been mediated instruction packages and computer-assisted instruction modules. Information skills programs have also been focused on in the open learning and adult education programs. In 1998, SCOUNL (Standing Conference of National and University Libraries) created a task force to prepare a statement on information skills for higher education. SCOUNL proposed seven sets of skills developed from a basic competence in library and information technology skills. The majority of academic librarians are engaged in some type of teaching of information skills.

Training in information literacy is well organized in *France* today and it is supported by a national policy. There are different structures working on this field and they work together. A service of the French National Library and Information Science School (ENSSIB), FORMIST is a French-speaking network of information literacy resources. The objective of FORMIST is to collect and organize educational tools and provide them to instructors and students on a French speaking web site. FORMIST also has an important role as coordinator of an information literacy instructors network and organizes an annual conference in June, Rencontres FORMIST [6].

The EDUCATE (EnD User Courses in Information Access through Communication Technology) was a project funded by the European Union. In this project, was involved six participants: the University of Limerick, Ireland (coordinator), Chalmers University of Technology, Sweden (administrative and technical managers), Imperial College and Plymouth University, United Kingdom, the University of Barcelona, Spain and the Ecole Nationale des Ponts et Chaussées, France. The target of the EDUCATE Project has been to help students, research workers and practitioners in the development of information literacy. The specific aim of the EDUCATE project was to

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produce a new type of model self paced user education course in the selection and use of information tools. It was planned to base these courses on the use of the Internet. The EDUCATE project has led to the production of the INTO INFO programs. These have been, so far, produced in four subject areas: Chemistry, Physics, Energy and Electrical and Electronic Engineering. There is ongoing work on the production of modules in other subjects. The material has been produced in three languages: English, French and Spanish. The INTO INFO (EDUCATE) Programs have been designed to meet the needs of scientists, engineers, teachers, librarians and information specialists. The programs provide a means for learning about and accessing relevant information sources [7].

There are numerous examples of faculty-librarian partnerships in higher education in the *United States*. The Information Arcade at the University of Iowa, a collaborative effort of the libraries, the information technology office and faculty resulted in the Information Arcade, a facility designed to support the use of electronic services in research, teaching, and independent learning. A new model for learning at California Polytechnic State University, it is a model for librarian-faculty collaboration to teach students in a new learning environment how to become competent information consumers. In 1989, the National Forum on Information Literacy was formed as a collation of more than 80 organizations working to promote international and national awareness of the need for information literacy and encouraging activities leading to its acquisition [8].

In Canada academic librarians have been concerned with teaching students library and information skills. An annual national conference has been addressing information skills concerns for thirty years. Instructional librarians in academic libraries are continuing to address the challenge of integrating information skills instruction into the total curriculum [9].

Academic librarians have begun to restructure public services and their role within the university. Most important in order to build strong collaborative instruction programs is a dynamic librarian-faculty interaction. To be successful, librarians need to be alert, creative

and informed about what is happening on their university campus [10].

### 3. Synergetically-based accomplishment of an informational infrastructure at “Dunărea de Jos” University of Galati

The organization of an informational infrastructure - strong term in the building of the basis of information literacy - claims for the use of some principles peculiar to the coordinating and ensuring the viability of complex systems:

- the clear defining of the needs pertaining to each entity within the integrating system;
- the defining of the dynamics of the needs-resources dual structure, both at the level of each subsystem and at the level of the integrating system;
- the defining of links and connections between the composing systems for the continuous ensuring of an equilibrium in the long-term functioning of the integrating system;
- the possibility of continuous providing of new connections between subsystems for the global optimization of imperfections (hardware optimization)
- the possibility of augmenting the integrating system capacity through a process of continuous restructuring of the composing subsystems (software optimization).

The above mentioned principles underlie a continuous dualism in the making of an informational infrastructure, a dynamic play based on the principles of construal theory - which should allow for the making of a *perfect balance between needs and resources, between constructive optimization (hardware) and functional optimization (software), between the subsystems stable and inflexible unity and the same subsystems dynamic and flexible unity (connections), between energy (any system action potentiality) and information (any system creation potentiality)*.

This dynamic play is best reflected by the Chinese philosophy Yin-Yang principle (see fig. 2). Small entities (subsystems of the big integrating system) generally have big needs and scarce resources. The integrating system is an ocean of potentiality from the point of view of

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resources and, in the case of constructive and functional optimization, it has scarce needs. The small-big (subsystems- integrating system) dynamic joining may result in the preserving of a balance in the providing of the needs-resources dualism. It is worthwhile emphasizing that, *in this way, the integrating system preserves its viability through the very getting of an optimal*

*viability and functioning of the constituting subsystems.*

This dynamic play - in fig. 2. - also reflects the fundamental principle of synergetics: the integrating system reach of high potentiality through the very inner self-organization of the constituting subsystems.

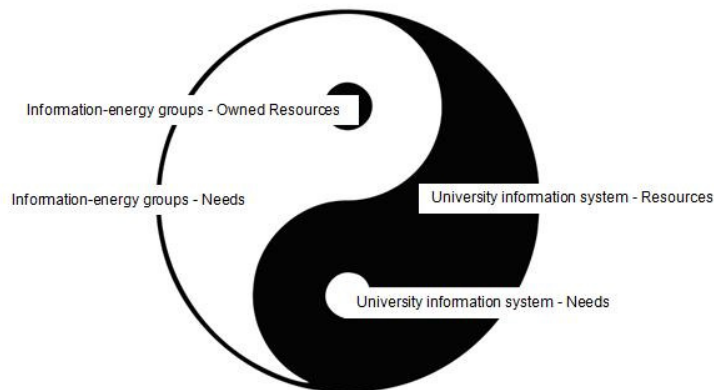


Fig. 2. The dynamic play of needs and resources at University informational infrastructure level

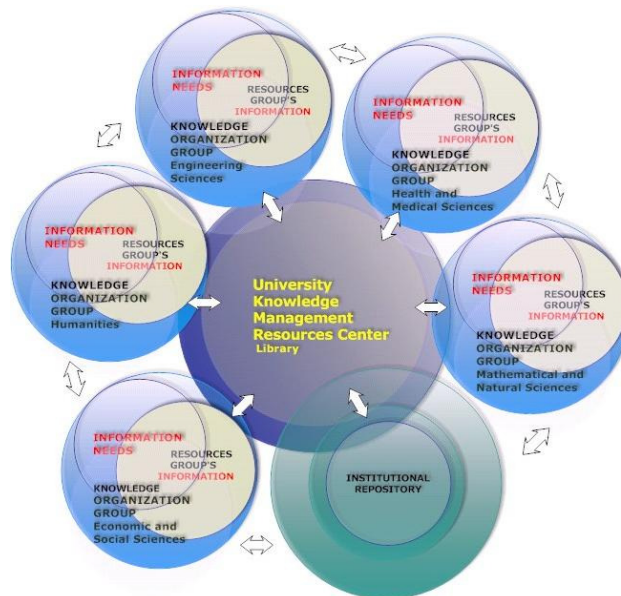


Fig. 3. The “Dunărea de Jos” University of Galati would-be informational infrastructure built on synergetic principles

In other words, an informational infrastructure based on such a dynamic game - at the same time observing the principles of synergetics and of the construal theory - has all it takes to provide a long-term and highly efficient operation.

The building of such an informational infrastructure through the implementation, first of all, of the results produced by a SIPTEH partnership project at “Dunărea de Jos” University of Galati will have to show the following features:

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- to include an institutionalized store of digitized information (the ocean of information for all constituting subsystems);

- to work with entities which can clearly define their needs and they also can assess their own resources (of information, knowledge, action-generating energies). These entities organized at the level of science-specific fields will be named energetic-informational groups. The energetic-informational groups will consist of specialists from the multiple subfields of the scientific field in focus and specialists from related fields (pedagogues, specialists in the fields of law, economists, etc.) who will be able to establish the rules of the needs-resources dynamic interplay at group level. Thus, a first synergy will be reached and it will be extremely beneficial to solve a wide range of problems arising from the part of the group (or subsystem) and the University (or the integrating system);

- to provide a central positioning of the library, similar to a brain able to collect, catalogue, produce guidelines, to find stored information, to perform new connections allowing for the growth of “Dunărea de Jos” University of Galati integrating system creative potential to which informational-energetic groups (through the individuals making them) can connect any moment they want as well as through the application of a group unitary strategy (through representatives uniting integrating features of several individuals in the group or of all entities within the group). Thus, a new synergy will be performed and it will allow for accomplishing some major research or education goals;

- to allow for the traffic of information through a ring (the University informational ring) which will facilitate the easy linking of all constituting subsystems (energetic-informational groups) at the same time allowing them to rapidly get the subsystems-integrated systems synergy;

- to allow for the making of synergetic links between energetic-informational groups for the rapid materialization of some projects of mutual interest (interdisciplinary).

The putting into practice of these ideas will create a strong basis for the implementation of *an information literacy* at “Dunărea de Jos” University of Galati since it will allow for the

accomplishment of a large part of the seven main abilities necessary for the education of a competent person with regard to the culture of information established by SCONUL (Standing Conference of National and University Libraries), in Great Britain.

1. the ability to admit the need of information;

2. the ability to distinguish ways to approach the ‘lack’ of information:

- knowledge of the corresponding printed and non-printed types of resources;

- selection of the best suitable resources;

- ability to understand aspect affecting the accessibility of resources.

3. the ability to build strategies to localize information:

- to develop a systematic method fit for the need;

- to understand the principles of building and generating data bases.

4. the ability to localize and access information:

- to develop suitable research techniques;

- to use the technology of information and communication, which includes the international academic networks;

- to use adequate indexing and summarizing

services, indexes and quotation data bases;

- to use current informing methods.

5. the ability to compare and assess the information taken from different sources:

- understanding of authority-pertaining aspects;

- understanding of the (book) reviewing process in scientific editing;

- adequate extraction of information corresponding to the need of being informed.

6. the ability to organize, apply and communicate information to other persons in those ways which correspond to a particular situation:

- to quote bibliographical references in academic writings;

- to build a personal bibliographic system;

- to communicate effectively making use of the proper means of communication;

- to understand aspects regarding copyright and plagiarism.

- the ability to synthesize and build through

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an adequate organization of an informational infrastructure at university level, all these abilities will become valuable assets both the generations of learners and for the academics as well as other members of the University personnel [11].

Through the new learner-teacher synergy produced with the help of a new informational infrastructure, notable results will be obtained in the mutual development of the two entities degree of self-fulfilment within the educational process, the increase of the two entities' knowledge volume and, at the same time, the development of the innovating spirit of everything that is being performed.

### Conclusions

The analysis of the existing informational infrastructure at “Dunarea de Jos” University of Galati as well as its latest expanding and confining trends invite to the following conclusions:

- the human mind itself functions synergetically;
- human mind is the excellence of potentiality allowing for both inner links and connections and external links and connections (with other individuals, with other minds), which, in turn, allows for the manifestation of multiple intelligence (abstract-rational, emotional, social, etc.);
- human minds and connections between minds allow for the forming of an information literacy;
- consequently, information literacy is the result of multiple synergies reflected by the ultimate consonances at human mind level;
- the appearance and the preservation of these consonances is presently possible only through technological extensions, i.e., informational technologies, in particular;
- the extension and confinement of informational technologies claim the creation of new informational infrastructures;
- the new informational infrastructures cannot but subject to the natural philosophy, i.e., they will have to rely on the principles of

synergetics which are active within any integrating system of medium or high complexity;

- a synergetic informational structure will at the same time observe the construal principle of global optimization of imperfections;

- a globally optimized informational infrastructure will ensure harmonious operation.

As a consequence, it is the intra and extra systemic synergy of “Dunarea de Jos” University of Galati, an academic community which may guarantee not only the creation of a genuine information literacy but also the generation of that particular kind of knowledge which may allow for the access of the University to the worldwide famous academic communities.

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## ■ International Conferences ■

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### **International conference on Quantitative and qualitative methods in libraries (QQML)**

The second international conference on Quantitative and qualitative methods in libraries (QQML) was held in Chania, Crete, 26<sup>th</sup> - 29<sup>th</sup> May 2009. At the conference, about 150 librarians, library educators, scholars from different fields met. The program was divided into different key notes, and separate parallel strands.

There was a varied and interesting list of keynotes, here appearing in alphabetical order:

Prof. Carla Basili from Consiglio Nazionale delle Ricerche - (Italian National Research Council), Rome, Italy and Lumsa University - Rome, who spoke about Measuring Information Literacy policies.

Prof. Dr. Norbert Fuhr from Department of Computational and Cognitive Sciences, University of Duisburg-Essen, Germany discussed "Evaluation Approaches for Digital Libraries", and Dr. Henk Harmsen, Head of the Development & Acquisition Department, The Netherlands Institute of Scientific Information (NIWI-KNAW) spoke about *Guidelines for repositories assessment and review of the quality of operations for data repositories* ([http://www.isast.org/images/Abstract\\_Harmsen\\_QQML\\_Crete\\_2009.pdf](http://www.isast.org/images/Abstract_Harmsen_QQML_Crete_2009.pdf)).

Prof. Peter Hernon from the Graduate School of Library and Information Science, Simmons College, Boston, who is also Co-editor of the journal "Library and Information Science Research" discussed The Next Managerial Leadership: Continuation of a Research Agenda.

Prof. Niels Ole Pors from the Department of Library and Information Management, The Royal School of Library and Information Science, Copenhagen, Denmark had a talk about Measuring the Quality of Leadership and Service Provision in Libraries.

Unfortunately, the financial crisis meant that several of the speakers were not able to come, and this affected the program, but it also gave the

speakers more time than originally planned. For most speakers this was a bonus.

Among those present and presenting, it could be noted that prof. Angela Repanovici presented her and Daniela Turcanu's paper "Qualitative and quantitative measures in marketing research for university library resource assessment", and "Knowing the needs. A system for evaluating the university library" with Ms Ane Landoy from University of Bergen Library in Norway.

Several Romanians had sent in their abstracts and been accepted, but unfortunately many were not able to be there for their presentations. All the abstracts will be found from the website <http://www.isast.org/qqml2009.html>, where there also is links to the upcoming QQML conference in 2010.

Crete has a good university, University of Crete, situated in Rethymno, with a Central University Library of very good quality. This library, <http://www.lib.uoc.gr/?lang=en>, has been among the leading academic libraries in Greece both when it comes to new and modern features and use of technology for the benefit of the users, and when it comes to international collaboration.

**Ane Landoy**

### A New Journal On Information Literacy

*Nordic Journal of Information Literacy in Higher Education (NORIL)* is a peer reviewed open access journal published by librarians from University of Bergen Library, Norway. The field is Information literacy. Information literacy in this journal will be the subject of both library pedagogical practice and of academic research, mainly from different academic disciplines, such as pedagogy, sociology, media studies, library and information science and psychology.

The journal aims to encourage research-based development of information literacy teaching within the programmes of higher education institutions. NORIL also sees itself as a forum for investigation and discussion of the connections between learning in the subjects and information literacy, and of increased collaboration between library and faculty.

Among other things, NORIL aims to aid the development of knowledge of teaching in the library context, and inspire to debates in the field. In the first editorial, the editors discuss how the concept of information literacy has traditionally referred to generic skills. However, information literacy is also to some degree context bound. Knowledge will be organised differently within different subject areas, also because practical approaches to learning differ widely in the disciplines. Formulation of central problems differs, as well as the rules that govern the use of supporting evidence. Evidence and its relation to conclusions may vary. Rarely will subject databases for searching literature and materials correspond across disciplines, and there are different conventions as to what needs citation and how.

In the editors' opinion, the library as a pedagogical institution needs to cope with these developments as they are happening, and clarifying the links between subjects and library becomes a crucial task. One may envision libraries as future centres of competence for information navigation within higher education. In order to do so, they will need to establish research-based pedagogical approaches that can

integrate knowledge from different subject areas as well as knowledge about the workings of the various disciplines themselves.

The many practical projects seeking to implement new teaching models within university libraries have led to a number of publications. However, these have largely been simple descriptions of various such models, which too often lack a background in systematic research projects or solidly based visions of learning and knowledge. During the last decade or so there has been a new emphasis on anchoring practice in research and theory, and one aim of NORIL is to contribute to this trend.

The first issue of NORIL is out now. It contains three peer-reviewed articles that focus on central aspects of information literacy within higher education, in different ways. It also includes an interview with Professor Carol C. Kuhlthau about her view of the roles of the library and librarians within an information society.

The journal is open to article authors and book reviewers who can contribute to a better understanding of the relationship between research-based knowledge and learning processes in Higher Education, and teaching practices within the field of information literacy.

More information can be found at <https://noril.uib.no/index.php/noril/index>

**Ane Landoy**

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Articolele trebuie trimise la: **Robert Coravu, redactor-șef - e-mail coravu@bcub.ro**.

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Referințele bibliografice incluse la sfârșitul articolelor vor avea următorul format:

a) *pentru monografii*:

- *cu un singur autor*: **NUME, Prenume autor**. *Titlu: informație la titlu*. Loc de publicare: Editură, an.\* Nr. pagini
- *cu 2 sau 3 autori*: **NUME, Prenume autor 1; NUME, Prenume autor 2; NUME, Prenume autor 3**. *Titlu: informație la titlu*. Loc de publicare: Editură, an. Nr. pagini
- *cu mai mult de 3 autori*: **NUME, Prenume autor 1; NUME, Prenume autor 2; NUME, Prenume autor 3** [etc.]. *Titlu: informație la titlu*. Loc de publicare: Editură, an. Nr. pagini
- *lucrări în volume*: se aplică aceleași reguli ca mai sus, numai că după titlu se va menționa numărul volumului/volumelor, ex.: **NUME, Prenume autor**. *Titlu: informație la titlu*. Vol. 1. Loc de publicare: Editură, an. Nr. pagini

\* Se folosește punctul înainte de pagini atunci când se indică toate paginile/filele unei monografii; dacă se menționează numai o secvență de paginație, se va folosi virgula, urmată de p. sau f. și de suita de pagini/file (ex.: Iași: Polirom, 2006, p.78-85).

b) *pentru capitole din monografii*: **NUME, Prenume autor\*\***. *Titlu capitol: informație la titlu capitol*. În: *Titlu monografie/Numere, Prenume autor*. Loc: Editură, an, vol. ..., p....

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c) *pentru articole din publicații seriale*: **Numere, Prenume Autor**. *Titlu articol: informație la titlu*. În: *Titlu publicație*, an/vol. ..., nr. ..., an calendaristic, p. ...

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