

# Informal Learning in Lifelong Education

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**Abstract**—This paper exhibits basic features of lifelong education and possible forms of learning. Informal learning is elaborated in more details than other forms. The process of informal learning is a real example of lifelong education where an individual has total control over the learning process and its results by choosing learning forms that suit them best at a particular time (reading the written materials, communication with people from their real or virtual surroundings, exchange of experiences, learning on mistakes...). The paper emphasizes the importance of information and communications technologies in the process of informal learning, i.e. lifelong education.

**Index terms**—informal learning, lifelong education, students' attitudes to lifelong education

## I. INTRODUCTION

The need for continuous lifelong education is a response to the expansion of new skills and technologies. As the new skills develop the old ones become outdated. It is therefore necessary, for one's own sake, to try to keep up with new information and knowledge. There are three basic forms of knowledge acquisition: formal, non-formal and informal. Formal and non-formal education prevails at particular stages in life and in particular situations whereas informal education can occur throughout life. Informal education derives new knowledge from everyday situations. Information and communications technologies, especially the Internet and its services make access to information much easier and enable their faster and simpler exchange. In that sense computerization of society is one of the prerequisites in order to achieve easier knowledge and skills acquirement in the process of lifelong education.

After the introduction, the second chapter specifies main features of lifelong education, and the need for lifelong education is obvious from the results of a survey carried out at the Faculty of Economics and Business in Zagreb. Third chapter describes a link between the need for the computerization of society and implementation of information and communications technologies in lifelong education. Fourth chapter explains the role of informal learning in lifelong education. Conclusion follows in the fifth chapter.

## II. LIFELONG EDUCATION

There is no doubt that the need for lifelong education is today stronger than ever. The notion "what I learn in school will get me through entire working life" is outdated. The amount of available knowledge is growing too fast to be mastered during years of formal education, and the existing knowledge becomes outdated on a daily basis. What we learn today will need an upgrade in just a few years time. The reason is to be found in great development of science and new technologies, especially

information technologies, the Internet and its services. Data digitalization enables storing unimaginable amount of diverse knowledge into various databases. Internet and Internet services enable access to stored resources for interested users when and how it best suits them. The aforementioned are prerequisites for knowledge expansion at a global level. Changes in social and economic world order, development of new business processes and digital economy are a challenge, especially for young people, to continually develop and perfect their professional skills, even after concluding their formal education. It is very likely that there is no occupation where lifelong education has not become a norm. The need for lifelong education is very well presented in the words of Alvin Toffler [6]: «The illiterate will be not those who cannot read or write, but those who cannot learn, unlearn and relearn».

There are several definitions of lifelong education. The term lifelong education (or learning) has been used to describe [5] "a modern global phenomenon where it has become normal for people to return to formal education and training at periods during their working life". This term is also based on the idea that learning can and does occur beyond the formal structure of an educational institution and occurs throughout one's life. Maravić [3] defines lifelong education as a learning activity throughout one's life with the goal of upgrading knowledge, skills and abilities within personal, civic, social and business perspective.

Lifelong education accepts all forms of learning: formal, non-formal and informal [3], [6], [8]:

- Formal education is a result of acquiring knowledge, skills and abilities in educational institutions, and includes primary, secondary and higher education.
- Non-formal education refers to organized learning processes people go through along with formal education or upon completion of formal education, not in typical educational institutions but through specialized courses etc.
- Informal education is acquired through everyday activities, when a person freely chooses what knowledge and skills they want to master and the ways in which they want to accomplish it. A person has control over learning process and its results.

Besides dividing education into formal, non-formal and informal, there are also other ways to systematize education.

It is possible to distinguish between formal education and other forms of education that are not realized through traditional educational institutions. These other forms refer to non-formal and informal education.

In the same way it is possible, in lifelong education, to distinguish between organized learning processes (formal and non-formal education) and spontaneous learning processes (informal education).

A. *Students' attitudes to lifelong education*

A survey carried out at the Faculty of Economics and Business in January 2008 was to gather students' attitudes to lifelong education, ways and forms of knowledge acquisition in the future, their satisfaction with knowledge acquired during their studies, and the applicability of acquired knowledge in their future careers. The survey was carried out on a sample of 80 fourth-year students of Business Information Science.

The results of the survey relevant for the paper's topic:

To the question «Do you support the idea of lifelong education?» a great majority of students, 72 of them (90%) answered affirmatively, and 8 of them negatively.

The question «Which form of lifelong education do you find more suitable for further education?» offered two choices: (1) formal education (postgraduate courses at the faculty); (2) non-formal education (courses, seminars, group discussions, self-education ...). The students' answers (Table 1) show that 80% of them consider non-formal education (including informal education) to be most suitable form of further education.

TABLE I.  
STUDENT'S OPINION ABOUT SUITABILITY OF FORMS OF LIFELONG EDUCATION

Suitable for further education	Number of students	%
Formal education	14	17.50
Non-formal education	65	81.25
No answer	1	1.25
Total	80	100.00

The question «Are you satisfied with acquired knowledge and skills during your university education?» offered three possible answers: (1) completely; (2) mostly and (3) no.

TABLE II.  
STUDENT'S SATISFACTION WITH ACQUIRED KNOWLEDGE AND SKILLS DURING THEIR UNIVERSITY EDUCATION

Satisfaction with knowledge and skills	Number of students	%
Completely	1	1.25
Mostly	48	60.00
No	31	38.75
Total	80	100.00

The students' answers (Table 2) show that only one person is completely satisfied with acquired knowledge and skills, 48 of them are mostly satisfied, and 31 are not satisfied at all.

The question «Assess applicability of knowledge acquired at the faculty regarding your desired future career?» offered following choices: (1) totally applicable; (2) partially applicable and (3) inapplicable.

The answers (Table 3) show that only 3 students consider their knowledge to be totally applicable in their future career, 69 students think their knowledge is partially applicable, and 8 of them think their knowledge is inapplicable.

TABLE III.  
STUDENT'S SATISFACTION WITH APPLICABILITY OF KNOWLEDGE ACQUIRED AT THE FACULTY

Applicability of knowledge acquired	Number of students	%
Totally applicable	3	3.75
Partially applicable	69	86.25
Inapplicable	8	10.00
Total	80	100.00

Although the last two questions refer to two separate areas (satisfaction with acquired knowledge and applicability of the same in the desired career), from an aspect of further education they are interconnected. Analysis of students' answers lead to following conclusions:

- Almost all students participating in the survey, 79 of them (48 mostly satisfied and 31 unsatisfied), are possible candidates for a form of non-formal education because they are either partially or not at all satisfied with the knowledge and skills acquired through formal education.
- When considering the applicability of acquired knowledge and skills in their future careers, 77 students (8 who think it is totally inapplicable and 69 who think it is only partially applicable) are also possible candidates for a form of further education since they believe the knowledge and skills acquired so far are not enough for their future careers.

The analysis of all questions and answers lead to conclusion that there is a great possibility that almost all students will take part in some form of further education, most likely non-formal, i.e. informal education.

III. COMPUTERIZATION OF SOCIETY AND LIFELONG EDUCATION

When we talk about lifelong education, no matter which form is in question (formal, non-formal, informal), a great part of learning activities is connected to the Internet and its services. This makes it important to explore the connection between computerization of society and implementation of information and communications technologies in lifelong education.

A. *ICT infrastructure and users' aptitude for its implementation*

Available ITC infrastructure and the Internet access are surely key elements in acquiring knowledge via the Internet. According to the Market Research Centre (GfK report from July 2007) [4] around 38% of population of Croatia (1.32 million people) uses the Internet. Within this segment, by analyzing the age and education level of the users, it is possible to determine hypothetically which users would be interested in some form of lifelong education.

Considering the age of users, it can be assumed that almost 80% of users aged 15-44 (32% of users are aged 15-24, 24% 25-34 and 23% 35-44) intend to take part or are already taking part in some form of education. As age determines interest in particular forms of learning, it can be assumed that for users of younger age (pupils and students) the following forms of learning would be appealing: informal form by ways of surfing the Web and collecting necessary data for writing papers, participating

in discussion groups, additional education through available Web contents in formal education and e-learning contents as forms of formal or non-formal learning etc. Employed users could be interested in non-formal and informal learning form via e-learning contents, specialized Web courses, experience and knowledge exchange in various discussion groups, forums, some forms of audio, video or teleconferences.

By analyzing the educational structure of the Internet users it can be established that 80% of users have secondary, higher or university education. To be more precise, 54% of users finished grammar school, some high school or vocational school, or are college students, and 27% of users have college or university degrees. Considering the education level, it is safe to presume that users are computer literate and ready and capable of participating in some form of Web-based lifelong education.

#### B. E-Croatia Programme

Croatian government structures recognized the need for creating prerequisites to develop a society capable of accepting and implementing Internet technologies in business and everyday life. The e-Croatia Programme (Program e-Hrvatska in original), for example, is one of the on-target programmes that is partially carried out, and which reviews different aspects of possible transformation of our society into a computerized one. The programme is based on the e-Europe 2005 Project developed by the European Union and its further development is in line with the European initiative i2010 – European Information Society for Development and Employment. The important part of the e-Croatia Programme for this paper is e-Education (e-Obrazovanje in original), a segment of this Programme [9]. Some of the goals of e-Education segment are the following: implementation of information and communications technologies in class and introducing Information Science as an obligatory subject into primary and secondary schools, making it a part of Croatian National Education Standard and developing a system of educational programmes on the Internet. By accomplishing goals set within segment of e-Education, there would be a solid basis for real implementation of IT based lifelong education. Prerequisites for that are, before others, the existence of corresponding ITC infrastructure and a critical mass of computer literate population who have developed a habit of using the Internet and available educational contents.

### IV. ROLE OF INFORMAL LEARNING IN LIFELONG EDUCATION

When talking about lifelong learning, the need for education through some standardized education system comes first to mind. Most often we refer to formal education, i.e. a basic education system (primary, secondary or higher education), or to non-formal education through specific organized forms of acquiring knowledge via specialized courses. What is usually neglected and not mentioned is informal education. Studies have shown that informal education is the dominant one in a person's life, a person acquiring 70-75% of total knowledge through it. Sally Ann Moor [1] points to the disparity between formal and informal education. She divides knowledge acquired through formal education (20% of total knowledge) into «I know»

(5%) and «I can do» knowledge, while the remaining knowledge (75%) is acquired through informal education in form of «I adopt and adopt». So, an individual needs formal education because it is a starting point for acquiring all other knowledge. The knowledge is then continually acquired throughout life. The phrase «I adopt and adopt» points to continuity and creates the need for new (mostly informal) knowledge.

We have to accept the notion that on the one hand we have knowledge acquired through formal education and on the other knowledge acquired through non-formal and informal education.

There are two modes of informal learning [2]: face to face or virtual. Associated methods for face-to-face informal learning are networking events and team projects, and Web based collaborative spaces for virtual informal learning. Informal learning is based on conversation, social interactions and team projects in which learning is a part of the interaction between people.

There are three types of informal face-to-face learning [2]:

- temporary learning system - where groups of people are brought together for a short period of time to learn about a specific topic,
- communities of practice - where people share personal or professional interests and meet together to exchange knowledge and share resources,
- learning networks - where cross-organizational groups are focused on knowledge sharing within specific business issues.

Informal learning can be achieved by reading books or magazines, talking to experts, talking with peers, using written correspondence but also by using the Internet and its services. Considering how well spread the Internet is, the great amount of easily accessible data, and possibility of using different Internet services in the process of data collection and communication, the implementation of IT and Internet technologies in informal learning is ever more plausible.

#### A. Internet – source of various possibilities

Internet is a medium that provides unlimited possibilities of acquiring knowledge. Its potentials can be analyzed from a point of view of the Internet as a network for information transfer but also from a point of view of available Internet services. From a point of view of Internet services there are following possibilities: (1) Web as a place where unimaginable amount of knowledge is stored, which can be accessed by using appropriate software (search engines, intelligent agents etc.), and (2) other services that enable sharing of stored data, person-to-person or group communication. Potential problem of applying Internet technologies in informal learning could be language barrier considering that the majority of available data is in English.

#### B. Mentors' role

Informal learning implies individual knowledge acquisition but also mutual communication and knowledge sharing. A mentor plays a significant role in the process of connecting people and their sharing of knowledge for a person desiring to acquire new knowledge. Mentors are no teachers in a traditional sense of the word; they can be instructors, coaches, expert

locators, moderators, managers, team leaders, colleagues, friends... A mentor is a person who advises, teaches, exchange experiences, points to new knowledge sources and new technologies. The relationship between a mentor and a student can be achieved through face-to-face communication (exchange of opinions, suggestions, directions), virtual individual communication (e-mail, chat) or virtual group communication (discussion groups, forums, video conferences, etc.).

### C. Advantages of informal learning

The main advantage of informal learning regarding other forms of learning is the freedom of choice when it comes to learning process itself. One chooses for oneself what, when, where, with whom and in what way will they learn. There is no pressure, and no deadlines for acquiring new knowledge and skills, only one's own pleasure. That is also the greatest value of informal learning.

## V. CONCLUSION

The goal of this paper was to draw attention to informal learning as one of the possible forms of learning in lifelong education. It is a specific form of learning through which an individual acquires three quarters of one's total knowledge. The process of acquiring knowledge is lifelong, it takes place "in the shadow", by acquiring new information from books, available materials on the Internet, by exchanging experiences, communication with colleagues, learning on mistakes... We have analyzed the way in which informal knowledge is acquired, possibilities of using the Internet and its services and the role of a mentor in the process. Advantages of informal learning have also been pointed out. The paper also exhibits basic features of lifelong education supported by

students' attitudes to lifelong education, and possibilities of using ICT resources in the process of lifelong education.

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