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E-skills for all generations – intergenerational approach to e-literacy

Abstract

E-skills are understood as a set of competences and knowledge directly associated with the ability to use information-communication technologies. Development and contemporary socio-political processes have made e-skills in integral part of everyday life in the 21st century, without which cooperation and social inclusion of individuals is severely inhibited. In the first parts of this paper we argue that while e-skills development has been high on the policy agenda both at the national (Slovenian) and supranational (EU) level, the prevailing policy and scientific discourse on e-skills predominately focuses on the economic impacts and employability factors of e-skills. Consequently, the levels of digital literacy of one of the most vulnerable social groups in the context of information society, the elderly, remain below satisfactory levels in the broader EU community and in Slovenia in particular. In the second part we argue that although evidence of activity in the field of e-skills training for the elderly exists in Slovenia, the action of stakeholders is defragmented and highly dependent upon private actors, such as multinational vendors and NGOs. We follow by presenting the project Simbioz@ as an alternative initiative in the field, which strives to address the issue of e-skills of the elderly through an intergenerational approach and by connecting different stakeholders in Slovenia. In conclusion we argue that the project brings a fresh, innovative and somewhat optimistic view to the issue of e-skills particularly by addressing the issue at large scale in a target group, which has been until now mostly overlooked in Slovenia.

Key words: e-skills, discourse, intergenerational solidarity, voluntary action, social inclusion

Introduction: background of project Simbioz@ – e-skills in search of a shift in emphasis

With the contemporary processes of globalization, a gradual and partial introduction of the information society[1] and the intensifying development of modern technology, e-skills have evolved as a fundamental part of knowledge of individuals and social groups with particular relevance to their increasing social interconnectedness and interdependence. Accelerated development, expansion and availability of information-communication technology (ICT) have brought the dependence of the socio-economic processes to the point where all societal, economic, and policy activities and interactions, from the most mundane to the most complex, cannot be accomplished without the use of ICT. "Thus, e-mail, web-surfing, online job-search, and social networks have become integrated in daily life. Likewise, activities such as e-learning, e- government, and e-commerce are more and more a major element in the life of many individuals" (Vicente and Lopez 2010, 220). Therein, e-skills have become a fundamental part of cooperation and inclusion of the individual in everyday social activities

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[1] The concept of information society is primarily problematical at the ontological level, where the scientific literature is unclear on the use and meaning of the term itself, discussing whether it should be considered as *information* or *informational* society (see Castells in Gantar 2004). Meanwhile, the introduction of information society remains a contested issue within the scientific, expert and policy communities, where regardless of all the policy and political support to e-skills, empirical data exposes a growing digital divide at the level of different individuals, societies, states and regions (Vicente and Lopez 2010).

and represent a prerequisite for competent and complete citizens' activity in all social contexts, from economic, policy and civil society participation to cultural and lifelong learning activities.

In general e-skills can be defined as a set of competencies and knowledge skills directly associated with ICT. The European Commission (2007) classifies e-skills on the basis of three areas of usage and applicability:

- E-skills for ICT practitioners[2]
- E-skills for ICT users[3]
- E-skills for e-Business[4]

In the context of the definition provided by the European Commission, e-skills are understood as a fundamental set of capabilities, which equip the contemporary European citizens with the knowledge and skills for life in the knowledge society and work in the knowledge economy. Amidst the economic elements and potential economic gains directly associated with the issue of developing citizens' e-skills[5], certain un-economic socio-political benefits may be drawn from e-skills, particularly for vulnerable and marginalized social groups. ICTs are increasingly determining the ability of individuals, business, and territories to act effectively and efficiently in a globalized world (Vicente and Lopez 2010). The value of e-skills in the processes of citizens' mobilization, in preventing and eliminating social exclusion, enhancing political participation and mitigating the effects of democratic deficit are just some of the socio-political impacts set out in the EU (see European Commission 2010a) and Slovenian (see Government of the Republic of Slovenia 2007) strategic policy documents in the field of information society development.

This type of understanding on the potential impacts of e-skills is in line with the vision of the European Commission, which (if somewhat paraphrased) defines e-skills as the fundamental capability of (active) EU citizens. Nevertheless, we must bear witness to the fact, that (similarly to other transition stories) the electronic and information (or informational) transition can in many cases exclude a certain number of individuals and social groups, which have been, as a result of different social, economic and demographic factors, already driven to the brinks of modern society. In recent years the European Commission has warned that the levels of e-literacy in individual member states and in the EU community remain below

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[2] E-skills for ICT practitioners include capabilities required for researching, developing, designing, strategic planning, managing, producing, consulting, marketing, selling, integrating, installing, administering, maintaining, supporting and servicing ICT systems (see European Commission 2007).

[3] E-skills for ICT users are those capabilities, which allow the individual to use ICT systems and devices in an effective manner. In general, they include capabilities which are understood under the term "digital literacy" and enable the individual to confidently and critically use ICT for work, leisure, learning and communication (see European Commission 2007).

[4] Capabilities needed to exploit opportunities provided by ICT (notably the Internet) to ensure more efficient and effective performance of different types of organizations, helping them explore possibilities for new ways of conducting business/administrative and organizational processes (see European Commission 2007).

[5] With the advent of the economic crisis the policy discourse depicting ICT as one of the main catalyst for economic growth and development, has gained further ground. The European Commission has earmarked EUR 1 billion of extra spending for ICT related investment (see European Commission 2009 in Vicente and Lopez 2010).

satisfactory levels which (as its representatives have stated) has direct impact on economic development, investment and innovation (see Žurnal 2007).

Yet, as we have noted earlier, the non-economic socio-political impacts of low levels of e-literacy seem to be largely neglected in both the scientific community and the policy arena. In Slovenia, which is no exception compared to other member states, a discourse, associating e-skills with the flexibility of the workforce and employability of individuals, is evident. Devetak (2006, 1) notes that e-skills and computer literacy are directly connected with individuals' employment opportunities and adds that individuals possessing computer knowledge are better equipped for quickly finding employment on their own. In a statement made in 2007, the former Commissioner for Information Society Ms. Vivian Reading reinforces this policy discourse; associating low levels of citizens' e-skills merely with the deficit of a skilled and qualified ICT sector work force and the drain of talented individuals (see Žurnal 2007).

In this discourse the needs and interest of one of the largest and fastest growing social groups in Europe, the elderly, are neglected. Due to the fact that the elderly normally do not take part in formal educational processes and are no longer involved in everyday employment, they represent one of the largest vulnerable social groups and are subjected to potential social exclusion, which is intensified with every new innovation in the field of ICT. Therefore, a systematic and integral approach to securing their e-skills is called for. As (even) Devetak has correctly noted "living in the information society without adequate knowledge and skills for use of ICT leads to stagnation of the individual, organization and the society at large" (Devetak 2006, 1).

What the data tells us

Although strategic policy priorities at both the national and supranational level include reference to the role of ICT in socially relevant contexts, the prevailing discourse relating to the importance of e-skills has had real and significant impact in practice. E-content and e-services provide citizens with additional opportunities for cooperation and active participation in society. But as different authors warn, the "sheer abundance of information and technology will not in itself create more informed citizens *without* a complementary understanding and capacity to use information effectively" (Bundy in Ferguson 2010, 2).A working and readily available ICT infrastructure and individuals' computer literacy are the most critical prerequisites of the information society. Computer literacy[6] is therefore one of the most significant components of e-skills and the development of information society.

In 2007 digital illiteracy (includes use of internet) in the EU had been estimated at 40% of the population, by 2011 (data for 2010) it has decreased by (only) 10% (see European Commission 2008, Eurostat 2011). This still means that in the 21st Century in what is supposed to be one of the most advanced supranational communities in the world every third

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[6] Computer literacy is a concept which can be understood in the broadest sense of the term and includes a whole spectre of literacy skills from digital, network, IT, electronic, internet and hyper-literacy (see Kope in Peršin 2008).

person has not yet used the internet. Whether we uncritically subject to the prevailing discourse surrounding e-skills or not, the data should be of concern to all the actors involved. When the data is extracted for individuals over the age of 55, the digital illiteracy rates increase significantly and average 54% for the whole community (see Eurostat 2011). The same date shows that 22% of EU citizens have never used a computer and when this data is augmented for age significance, the data shows that 47% of people aged 55 or more have never used a computer.

For Slovenia the data shows that 56% of people over the age of 55 have never used the computer, while 67% of the people in the same age group have never used the internet (see Eurostat 2011). As discussed above one of the factors of potential social exclusion of the elderly is the fact that they are no longer a part of the everyday employment process. If we augment the data to reflect this fact, taking into account only people over the age of 65, the results are even more alarming. According to data for 2010, 75% of people over the age of 65 in Slovenia have never used a computer, while 85% of the same age group gave never used the internet (see Statistični urad 2011).

At the same time data for 2010 shows that 45% of the unemployed individuals also lack appropriate computer literacy (see Petkovšek Štakul 2010). Both groups the elderly and the unemployed face similar risk of social exclusion. The authority responsible for the field of unemployment (The Employment Service of Slovenia) initiated a project in cooperation with Microsoft and the NGO Youth Information and Counselling Centre of Slovenia (MISSS) to provide job seekers with the necessary e-skills training, covering the costs and thus providing the training essentially free of charge. Different public institutions and private organizations provide e-skills training for the elderly ranging from local municipalities, public libraries and private learning centres[7]. As early as 2003 researchers noted that there had been more than 550 programmes of different adult computer trainings available on the market in Slovenia (Brenke in Svetina et.al. 2004, 3). Through an NGO Slovenia participates in a Lifelong Learning Program supported project called Grandparents and Grandchildren[8], which utilises intergenerational cooperation in addressing e-skills of the elderly. The project had been well received at the EU level and has been awarded the 2010 European award for education projects in support of social inclusion (see Geengee 2011), but has unfortunately had limited impact and visibility in Slovenia, as only 9 (grand)children and 47 (grand)parents have so far participated in the project's training seminars.

What is evident from all the current effort in the field is a lack of continuous and systematic cooperation between different stakeholders, which had been set as one of the priorities of the Declaration on e-skills, adopted as early as 2006 at the European conference in Thessaloniki, Greece. In this respect the adopted declaration is clear that "the way forward towards the widening and deepening of e-skills within the EU is through involvement of all actors from government, industry, social partners and academia in multi-stakeholder dialogue and partnerships for action" (Korte et.al 2007, 2).

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[7] See for example the computer training provided by the municipality of Ljubljana at http://www.ljubljana.si/si/mol/novice/21308/detail.html.
[8] See http://www.geengee.eu/geengee/index.jsp

Project Simbioz@ - connecting generations, connecting stakeholders and building a partnership of action

A brief overview of the field of e-skills training in Slovenia provides a picture of fragmentation, reliance upon private actors, such as multinational vendors and different NGOs and a predominant orientation towards developing e-skills for employment opportunities and flexibility. In the policy context the issue of e-skills in Slovenia is being addressed and some limited results of the effort are beginning to show[9]. Therefore, the Ypsilon Institute decided to initiate and organize a project, which aims to increase the levels of digital literacy through intergenerational cooperation among people in Slovenia. The intergenerational approach to delivering e-skills had been chosen on the basis of available data, which shows that one of the most common ways of acquiring computer and internet skills is through informal assistance from friends, colleagues and relatives (see European Commission 2008, 14). In 2011 the focal point of the project is given to the elderly. Data shows that they are one of the most vulnerable groups when discussing e-skills and their impact on everyday social life (see European e-skills forum 2004, European Commission 2008, Eurostat 2011). After careful consideration the core team working on the project came up with the idea of labelling the project Simbioz@, as the word in Slovenian denotes symbiosis between different actors and different generations of people working together for a common cause. The project also wishes to contribute to the European Year of Volunteering 2011 and to the European Year of Intergenerational Solidarity 2012.

The project Simbioz@ has been initiated in 2010 with the aim of promoting digital literacy among one of the most vulnerable groups in the field of e-skills and to set up a project basis for continual, systematic, stable and balanced cooperation among all the different stakeholders in Slovenia, namely policy makers, business representatives, NGOs, academia and targeted groups of citizens. Special attention is given to e-skills that do not necessarily and directly contribute to the employability of individuals but rather provide them with the information and means of communication, characteristic of the information society. By doing so the project wishes to contribute to citizens' empowerment, the reduction of social inequalities and social integration of vulnerable groups. The project has been generated on a simple premise; joining in e-skills training:

- the elderly as one of the most disadvantaged groups in e-literacy, who have difficulties coping with the fast changing ICT environment, and
- representatives of generations Y (and X), who have been born into the digital age and are one of the most proficient social groups in use of contemporary ICT.

It also builds upon the energy and the outcomes of similar international and national projects and events (see Seniors 2009, PADD 2009, Geengee 2011) and has the objective of delivering large scale training for e-skills of the elderly in national terms.

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[9] The percentage of people over the age of 65 who have never used the internet has decreased from 88% to 85% in a single year, but remains above the EU average (see Eurostat 2011).

How it works – Simbioz@ e-literacy week

The main phase of the project is the so called week of e-literacy training, which will be carried out in October 2011 (Monday to Friday). The objective of e-literacy week is to address 200.000 young individuals (mainly Y and X generations) and 300.000 elderly individuals (65 years and over). Through an intergenerational approach to e-skills training the project will provide the elderly with the fundamental digital and informational competences needed for everyday life activities. The indirect objectives include promotion of e-skills in society, promotion of voluntary work, intergenerational solidarity, computer training and use of ICT by all social groups in all social settings.

Chart 1: Project organization
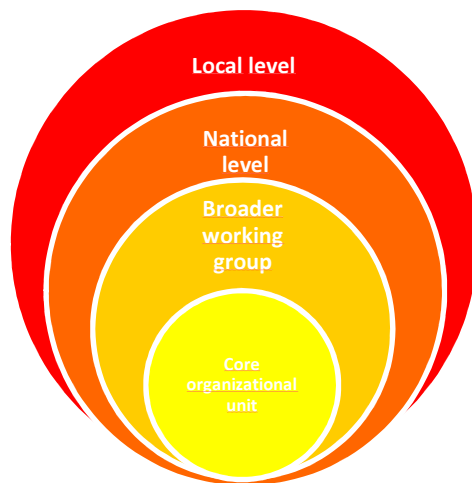
The organization of the project will take advantage of the so called snow ball effect, with a small core organizational unit at the centre, taking responsibility for developing all the ideas, project materials and providing overall coordination of the project. At the outer layer is the main "delivery" unit, represented by a network of local coordinators[10] and local volunteers, who will carry out the training. The organizational structure of the project is depicted in Chart 1. The organizational unit is further supported by a broader working group, including representatives of all relevant stakeholders, while the delivery unity is supported by existing networks and structure at the national level, such as the Slovenian Association of Pensioners (ZDUS).

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[10] The existing national network of local libraries will be utilized for this purpose.

Nowadays if you are not on Facebook you do not exist[11] **- developing, testing and evaluating the specialized curriculum**

The e-skills trainings during e-literacy week will be carried out using a special curriculum, which has been developed using the lessons learned from previous similar projects, on-going e-skills trainings for the elderly and curricula developed by private ICT companies in the field. The curriculum, as well as the implementation of training itself, is divided into three distinct and interlinked modules.

Module I, entitled **Computer ABC&Word** provides the students with basic computer knowledge and skills, including basic computer components, mouse navigation, keyboard use, desktop navigation, folder management and word processor skills. It has been designed in order to provide the novice user with the basic computer skills necessary for use of more advanced ICT tools. It gives particular emphasis to general computer handling such as mouse navigation and use of keyboard, two operations which have been identified through discussions with e-skills training practitioners to be the most hard (and time-consuming) to teach to the elderly.

Module II, entitled **A single click into the world** provides the students with basic information on the Internet, how to search for and recognize relevant information on the internet and how to use the internet in a safe manner. In developing this module particular attention had been paid to the needs and interest of the target group, adapting the content and information shown as examples in the module.

Module III is the focal point of the whole curriculum and is entitled **E-mail: A tool you C@n't ignore**. Although the core organizational unit considered module III to be the most significant, training practitioners, experts and business representatives had supported the idea of formulating the curriculum in a gradual manner, providing the students with basic computer skills before introducing them to more complex ICT tools. In this module the students are briefed again on the safe use of internet, they set up an email account, send and receive their first email and get briefly introduced to other web communication tools.

The curriculum has not been formulated to provide the students with a complete set of e-skills considered necessary for life in the 21st century, but merely introduces the students to basic ICT tools and provides them with basic knowledge, which they can build upon, either through informal learning in a family environment or through non-formal training available through different service providers.

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[11] A paraphrased statement, made recently by a young participant at the children's' parliament event, when asked why use Facebook. The statement is not an uncommon one among the young generations of today and in informal discussions with the elderly they have expressed great interest for this novelty the youth are talking about. The idea to introduce Facebook and similar web 2.0 media to the elderly is one of the driving forces of project Simboz@.

Chart 2: Modular structure of the proposed curriculum

Approach to e-literacy training week

Each day, two sessions of training will be available, combining a variable balance of the three modules. The reasoning behind such an approach to e-literacy week is that the potential students do not need to attend the training from Monday to Friday, but can chose the dates according to their personal schedule. It also enables participants with a certain level of e-skills to skip the modules, which they might not find as advancing their knowledge.

The main focus of project Simbioz@ remains to provide *en masse* training for basic e-skills and generate interest among the elderly for further training. As mentioned above a number of private and public service providers of computer training exist in Slovenia and they will be systematically reviewed and listed as part of the project in order to provide potential students with information on availability of further e-skills training.

In January 2010 the intergenerational approach and the curriculum adopted by the Simbioz@ project had been tested in a training pilot, where 17 participants of the target group had been trained by 6 young volunteers. Evaluation of the training pilot, performed through various methods of observation and data collection, showed that both the approach and the proposed curriculum content were well accepted by the target population. The feedback provided by the trainers and the students had been used by the core organizing unit to make additional amendments to the curriculum. An expert evaluation of the proposed curriculum will be carried out in April 2011, when feedback is expected from experts[12], representing different stakeholders in the field of e-skills. In addition a further 15 training pilots will be carried out in April 2011 throughout Slovenia in order to comprehensively test the approach and content.

The e-skills trainings during e-literacy week will take place in all available public[13] and private[14] locations, where the relevant computer and internet infrastructure is available. The main local partner for training implementation is the network of libraries and in particular librarians, who will take over the role of local coordinators for the project. Librarians have been identified as one of the professional groups who can deliver greatly in lifelong learning practices, particularly in programmes relating to information literacy (see Ferguson 2010),

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[12] Among the experts evaluating the curriculum are representatives of the Ministry of Higher Education, Science and Technology, Ministry of School and Sport, Faculty of electrical engineering and computer science (University of Maribor), Institute of Anton Trstenjak (NGO) and business representatives who carry out computer training for the elderly.

[13] Libraries, public primary and secondary schools and universities are the primary public locations.

[14] Business partners involved in the project will also provide their spaces for training.

which digital literacy is certainly a part of. In order to secure the necessary locations a network of so called Simbioz@ spots is being generated and an inventory of computer and internet infrastructure is being created for each individual "spot". As the core of activities will be implemented at local level, local municipalities represent the main focal point for each Simbioz@ spot and it has been estimated that at least 210 such spots[15] will be needed to implement the training. In addition a network of Info points, where relevant information on the project will be available, is being set up and a network of Registration points, where potential participants can sign up for training will be available shortly. All the data gathered through these different and overlapping networks is stored in an IT registry and will be made publicly available (excluding all personal data) through the Simbioz@ web portal. In this way not only the core organizational unit, but all the organizational structures as well as the general public can monitor how and when the available Simbioz@ spots are filling up with participants and trainers.

Current status and future directions

The project Simbioz@ is currently in the phase of building momentum in Slovenia. Several official supporters of the project have already stated their willingness to participate in their given capacity. Among them are the four honorary supporters, the President of the Republic of Slovenia, dr. Danilo Türk, the Prime Minister of the Republic of Slovenia, Mr. Borut Pahor, the President of the National Assembly of the Republic of Slovenia, dr. Pavle Gantar and the President of the National Council of the Republic of Slovenia, Mr. Blaž Kavčič. Official support for the project has been given by the three responsible ministries in the field, namely the Ministry of Higher Education, Science and Technology, Ministry of School and Sport and the Ministry of Labour, Family and Social Affairs. At the local level, which is the main level of execution and delivery support has been given by 135 municipalities and more importantly by the General Library Association of Slovenia. Official support had also been provided by one of the most relevant stakeholders, representing the main target group, the Slovenian Association of Pensioners. In March 2011 a contract of support had been signed by the main business partner of the project.

A number of events will be organized in order to generate wider public interest on the issues of e-skills, intergenerational solidarity and voluntary work. A large and globally present public relations company has joined the project and will provide media and advertising support, assisting in getting the message across to both target groups. Recently a series of meetings with local coordinators had taken place. The aim of the meetings was to discuss the tasks and responsibilities of the local coordinators in their local environment, as this represents one of the most crucial and contingent phases of the project.

Conclusion

A brief overview of the field of e-skills in Europe shows an inclination towards the understanding of e-skills as a significant factor of citizens' employability, economic development and financial growth (see Tas 2010). Social development, inclusion, knowledge

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[15] Reflecting the number of local municipalities in Slovenia.

and other social factors are represented in strategic policy documents at both the national and supranational levels. The objective of enhancing e-skills is indeed one of the seven pillars of the EU Digital Agenda for Europe 2010-2020 (see European Commission 2010b), but national practice and statistical data still show that large numbers of citizens are subject to potential social exclusion due to low levels of digital literacy. The data for computer and internet literacy show that the elderly in particular remain at the brink of the so called information society. In Slovenia the computer and internet literacy levels of the elderly remain below the EU average and practice in the field of e-skills shows signs of stakeholder fragmentation and an unsystematic and discontinuous approach to e-skills training of the elderly.

In 2010 the Institute Ypsilon began developing a project entitled Simbioz@ with the aim of addressing the issue of e-skills of the elderly population by using an intergenerational approach. The project's main activity, the e-literacy week, is yet to be carried out (October 2011), but initial feedback from a training pilot conducted in January 2010 shows positive attitudes for the project among both the elderly, who represent the training target group and representatives of the Y generation, who will represent the core of the volunteers executing the training. Project Simbioz@ is structured in a manner to include all the relevant stakeholders in the field of e-skills. Many of the stakeholders have already formally accepted participation in the project, most importantly the decision makers represented by three ministries and the NGOs represented by Slovenia's Association of Pensioners. The project is currently in the process of attracting wide public support and generating interest for the issue of e-skills. The objective set by the core organizing unit is to address 300.000 elderly citizens and 200.000 Y and X generation volunteers. Even if only one third of the targeted population is reached by project Simbioz@ it could in the best case scenario potentially lead to a 72% reduction in the percentage of people over the age of 65 who have never used a computer. As the results of the project cannot be fully evaluated at this point we can conclude by stressing that the project brings a fresh, innovative and somewhat optimistic view to the issue of e-skills particularly by addressing the issue at large scale in a target group, which has been until now mostly overlooked in Slovenia. Paraphrasing a young participant at the children's parliament who stated that you do not exist if you do not exist in Facebook, we hope that by introducing Facebook to the elderly project Simbioz@ will assist in reinvigorating their existence in the contemporary information society.

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