



## **EduWeb: Combating Digital Exclusion: Children educate digitally illiterate adults in safe and creative web**

(Erasmus+, Key Action 2)

**Report on the best practices for adults' education on Internet use in the educational process throughout Europe**

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## Introduction

At EU level, older people are one of the main target groups for the European Commission as reflected in the 2006 Communication “It is never too late to learn” [1] and the 2007 Action Plan on adult learning “It is always a good time to learn” [2]. The EU agenda for older people is becoming increasingly important and deals with such notions as:

- a) promoting social inclusion,
- b) improving the employment strategy,
- c) combating discrimination and
- d) promoting access to lifelong learning and training.

The UoI (Use of Internet) is an indicative factor of digital literacy and e-skills of the citizens of countries which aim to become the most dynamic and competitive knowledge economies in the world.

The EduWeb project aims to enhance the transnational cooperation between schools and educational institutions across EU in order to exchange UoI good practices for fighting digital illiteracy in EU, but also to strengthen the creative and safe use of Internet through the educational systems of the participating countries. Thus, we believe that teachers’ training about safe and creative Internet use, by using specialized educational tools and educational material, will help them stimulate students to train adult members of their families, who are digitally illiterate, at Internet use.

The Intellectual Output 01, a report on the best practices for adults' education on Internet use in the educational process throughout Europe, aims to study the bibliography so as to identify the suitable techniques and learning approaches that will be used in the educational tools that will be designed, focussing on adults' education on Internet use. This report will provide the framework for the requirement analysis and definition of the educational tools in O2 of the project.

An analytical guide of the existing EU frameworks strengthening and widening the regional and European contacts, partnerships and networks connected to adults' education on Internet use, as well as an exchange of know-how, experiences and good practices that highlight and widen opportunities for older persons’ lifelong learning activities, and, finally, the development of tools, mechanisms, structures and strategies for learning in later life at local, regional and national levels are more than essential.

## Structure of the report

The report is divided into two main sections: 1) European approach 2) Pedagogical aspects.

**Section 1** has been divided into two sub-sections:

A) Literature review dealing with a description of the existing literature on the following subjects: adult learning, training young coaches (pedagogy), digital learning and Internet safety. The types of documents taken into account have included: European policy reports, Surveys/Reports, Research/Academic papers and other professional output.

B) Good practices presenting an overview of the existing good practices and projects on the use of Internet by adult people. The information was taken from projects websites, documents or materials that are available to the audience.

**Section 2** elaborates more on the pedagogical aspects of a proposed EduWeb model on adults' education on Internet use by young students, through the literature review and the good practices identified, as well as the study of the special characteristics of each of the EduWeb target groups (teachers, students and adults), and describes the process and contents of an EduWeb model to be used.

In the last part of the report conclusions have been put forward.

## 1. European approach

### 1.1. Literature review

The review of existing literature focussed on such subjects as: adult learning, training young coaches (pedagogy), digital learning and Internet safety.

The types of documents taken into account have included: European policy reports, Surveys/Reports, Research/Academic papers and other professional output.

#### 1.1.1. Adults learning

One important element of online learning is andragogy, which, as opposed to pedagogy, concerns the education of adult learners. Regardless of how educational theorists define andragogy, (see, for example, M. Knowles, 1980), "five tenets are clearly present: 1) the self-management of learning, 2) the empowerment of learners leading to increased motivation, 3) the reliance on life experiences of learners to aid with their learning, 4) the objectives of learners for taking the course, and 5) the practical, real-world solutions to problems encountered in the course" (B. Chametzky, 2014).

Starting point for all European projects concerning the education of adults is the EPALE platform, where a wealth of documents and surveys can be found, such as the fundamental article on "Adult

Education and the Social Media Revolution” by Marvin LeNoue, Tom Hall, and Myron A. Eighmy, stating the basic principles of effective adult education.

“Drawing on the work of Knowles (1980), Knowles, Holton, and Swanson (2005), Tough (1979), Mezirow (1991 ), and MacKeracher (2004), some of the primary principles of adult education can be summarized:

- Adults develop readiness to learn as they experience needs and interests within their life situations.
- Adult learners in general are autonomous individuals capable of identifying their personal learning needs and planning, carrying out, and assessing learning activities.
- Adults have a need to be self-directing in their learning processes.
- In adult education, the teacher should be positioned as a facilitator engaged in a process of mutual inquiry, rather than as a transmitter of knowledge.
- Relationships and collaborations with others make important contributions to the adult learning process.
- Adults learn throughout their lifetime and engage in many informal learning projects outside of educational institutions and programs.
- Individual differences among people increase with age; therefore, adult education must make optimal provision for differences in style, time, and pace of learning.
- Adults bring life experience and prior learning to bear on current learning projects.”

Adult Education and lifelong learning are very important elements of our lives. They provide the opportunity to people of every age to continue receiving knowledge in all aspects of life. From their workplace to their house, even in educational centers, adults can receive the expertise needed to keep updating skills, knowledge and understanding of the world and cultures we have around us.

Skills are essential to adult learning, as well as the other way round. They are interlinked. Without learning, individuals cannot enhance their skills, and on the other hand, without our skills, expertise and “know how”, we would not be able to add to our knowledge.

Basic skills, are often considered to have four major characteristics. As per Rychen and Salganik, (2003, as cited in OECD, 2013) skills are required for a “successful life and a well-functioning society”, they are essential for accomplishing your goals and at the same time, they lay the groundwork for the developing labour market (Mayer, 1992, as cited in OECD, 2013). Furthermore, skills are something that all people have, only with a few differences depending on the person. The third characteristic is the most important one: skills can be taught and learned, though not always easily; however, with the chance that people can have in lifelong learning, skills can be created and strengthened. Lastly, skills can apply to many people and many different situations; they change and adapt depending on the needs of the position the individual is in.

As per the results of the Survey of Adult Skills (PIAAC), adults who have high skills are more inclined to participate in any educational program than the ones who are less skilled. This clearly states how interconnected education and skills are. Without several skills, adults are less likely to take part in a program for many reasons (OECD, 2013).

Furthermore, according to the Seven Principles of Adult Learning (Canadian Literacy and Learning Network, 2016), adults learn building on their skills, but also when they have the need to improve or adopt a new one. Sometimes the desire of helping others with their knowledge and ability acts as a strong drive for them to start learning and educating themselves. However, they usually acquire the knowledge that is only needed for accomplishing their goal. They do not try to learn something without having a cause. This might also be due to the fact that they have a lot of other responsibilities.

The core of Adult Learning is problem solving. As previously mentioned, usually adults have a goal, a problem which they are trying to find the solution to. Therefore, when trying to teach them, you need to be able to identify what they want and what the issue is, to help them develop the skills they need. Giving them realistic problems, will help in finding realistic solutions, which will stimulate the skills needed. This will activate the need of learning. Moreover, teaching adults is more effective if done as an exercise, where they can instantly explore the new skills. Then, once they see what they can achieve, they put more faith into it and it motivates them to continue. Something that could be considered as a liability, is the “maturity” of an adult. Unfortunately, sometimes adults have a kind of experience, that makes it rather difficult to engage them in a learning program. Occasionally, the way they feel about a subject may lead to difficulties in the learning process; however, you should “Use the learners’ experience (negative or positive) to build a positive future by making sure that negative experiences are not part of their experience in your program” (Canadian Literacy and Learning Network, 2016).

Besides the above, adults are better learners in free-and-easy conditions. By letting them think and figure out possible solutions to their problems, or even take decisions, by themselves, you keep them engaged and motivated to learn, you give them the Autonomy they need.

Lastly, when they are being taught, adults tend to dislike teachers who try to instruct them; rather, they need to feel teachers are showing them the way to the solution and are helping them. Even if there are some difficulties in learning because of the physical capabilities, if you show them the way to the solution in one of their problems, they will try to obtain the knowledge that you offer them. (Canadian Literacy and Learning Network, 2016)

“Every person, at every stage of their life should have lifelong learning opportunities to acquire the knowledge and skills they need to fulfil their aspirations and contribute to their societies” (UNESCO, 2015).

The European Agenda For Adult Learning Report illustrates researches that have been lately conducted. They reveal how important Adult Lifelong Learning is to the individuals, but also to the public. If people achieve their personal goals, they are more efficient at work, healthier and happier in their everyday lives. Unemployment and corruption decrease, self-satisfaction and wellbeing increase (AONTAS, 2014). Building on that document the outputs of the ISFOL Project IT – Implementation of the European Agenda for Adult Learning (ISFOL, Benni V., Daniele L.,

Spagnuolo G., 2014), took into consideration 95 Italian best practices in adult education with reference not only to ICT usage, but also to active citizenship and informal/non formal learning.

As per [the Belém Framework for Action](#), lifelong learning is “an organizing principle of all forms of education” (as cited in UNESCO, 2015). “The entire education system is designed to facilitate lifelong and ‘lifewide’ learning and the creation of formal, non-formal and informal learning opportunities for people of all ages. The concept of lifelong learning requires a paradigm shift away from the ideas of teaching and training towards those of learning, from knowledge-conveying instruction to learning for personal development and from the acquisition of special skills to broader discovery and the releasing and harnessing of creative potential. This shift is needed at all levels of education and types of provision, whether formal, non-formal or informal.” (source: [UNESCO Education Strategy 2014-2021](#) as cited in UNESCO, 2015).

### 1.1.2. Training young coaches

“Education should prepare our students for the future, whether that involves going on to further study, joining the world of work or becoming an engaged member of society. Education is a process that enables students to take their place in society as effective learners, as effective professionals and as effective citizens” (Taylore-Knowles, S., 2016).

Through the above process, life skills are developed. These are “the skills we need to deal effectively with the challenges in everyday life, whether at school, at work or in our personal lives” (Macmillan Publishers Ltd, 2016). As per UNICEF, “Education that helps young people develop [life skills] has transformative potential” (as cited in Taylore-Knowles, S., 2016)

Youngsters have similar, but also different characteristics to adults in regards to the way they learn. For example, adults can choose what they learn whereas children are trained to obtain a lot of different skills. Also, because of their mindset and energy of their youth, it is better for them to follow a curriculum, while adults need to feel more relaxed and informal in order to learn. It is considered that in young students the ways of learning can be divided into three groups; the physical side, social side and psychological side (Khoirunisya’ M, U., 2014).

Starting with the physical side, as per Brewster (1997: 6, as cited in Khoirunisya’ M, U., 2014), theories on children’s learning advise that young students should be educated with real life activities and not with hypothetical scenarios. Children, like adults, have the need to touch, hear and see in order to understand and keep the knowledge that teachers and trainers provide them.

Furthermore, emotions are also important to young learners. This is considered to fall under the social side. Wendy and Yteberg (1990, as cited in Khoirunisya’ M, U., 2014) state that children enjoy working and playing in groups. Additionally, Vygotsky in Hudelson (1991: 257, as cited in Khoirunisya’ M, U., 2014) advises that children working in groups were there are students with different strengths and capabilities have a higher percentage of learning, but also react according



to the perception of the ones around them. For example, if their team shows that they like them, they are more motivated and keen to be active within the group. Moreover, Eric Jensen (2000, as cited in Curtin, H. I. & Dahlberg, C. A. A. 2004, pg. 10) “points out that for many content areas a moderate level of stress optimizes learning. However, for subjects with high complexity and novelty, such as language and mathematics, students learn better with the lower stress environment just described”.

Lastly, in relation to the psychological side, there are seven major characteristics. Firstly, children’s mindset is very rational (Wendy and Yteberg, 1990, as cited in Khoirunisya’ M, U., 2014). They will act in the way that it is logical to them. Furthermore, they cannot concentrate for long, so you need to keep them active and give them things that will engage them. Like adults, in order to keep them interested, they need to use their skills to understand what they can achieve. (Wendy and Yteberg, 1990, as cited in Khoirunisya’ M, U., 2014). In addition, you need to try and educate them with a variety of techniques, as not only they have a short concentration span, but also their interests keep changing. They will get bored easily and you need to be ready to regain their attention. As they cannot concentrate for too long, this consequently causes distraction, which forces them to forget easily. A common skill of young learners is imitation; thus, it is significant to teach them techniques that they can adopt and use their skills with. Another similarity between adults and youngsters is presented by Wendy and Yteberg (1990, as cited in Khoirunisya’ M, U., 2014). Young Learners as well as Adult Learners want to be engaged with real life examples. Young people take themselves seriously, therefore, they appreciate people giving them the chance to express their skills with something solid.

To conclude, the big difference in adults and youngsters is risk taking. Young learners will take the risk in anything that you give them to try or learn, because they have no knowledge of the result, whereas adults, because of their experience and need to learn only what they want to or need to, will not take the risk and will stay on the safe side.

### 1.1.3. Digital learning

Today’s teaching abounds with diversity as students bring a multitude of life experiences, represent a variety of cultural backgrounds and demonstrate different learning abilities (Aud, Hussar et al, 2010). Teachers face challenges of educating every student, whether they are students with different language, background, home stability or special needs. In every case, each student requires educational resources that are unique to their own personal character. A way to tailor classroom instruction to the needs of individual students and abilities is described in a strategy known as differentiated instruction (Tomlinson, 2000). Differentiating is more effective than teaching to the whole classroom, because student needs and interests differ. In this environment teachers acknowledge that students come to lesson at different starting points, progress at varying rates and need multiple types of teaching to maximize the learning potential of each student. It is found that differentiating instruction to meet student needs results in a statistically significant increase in Reading and Maths achievement (Allenet al, 2011).

**Digital learning** is learning facilitated by technology that gives students some element of control over time, place, path and/or pace.

Digital learning offers methods to provide differentiated instruction to a diverse student population. The use of individualized computer instruction in the classroom results in students learning more, acquiring content faster and having a deeper understanding of the lesson (Schacter & Fangano, 1999). Nowadays learning can be achieved outside the classroom and in a real-life environment by using the latest technological trends. As per Jan Hylén's review (2015) summarizing the research on the use of digital learning in adult learning as a basis for the ET Working Group on Adult Learning, 20 separate EU surveys held in 2010 demonstrated how the introduction of ICT in learning led to increased motivation and fewer discipline problems in students (Hylén & Grönlund; 2011). The same results were obtained by some American and Australian surveys, proving that ICT has the capacity to enhance learning (State of NSW: 2009). However, the Kennisnet Foundation papers (2012) showed that "Computers can never substitute the teacher. To be successful there need to be a balance between investments in technology, in teachers' competence to use the technology, and in digital learning content. Furthermore there need to be leadership to guide all the systems and processes so that the right choices are made and so that collaboration is possible within and outside the institution. This is clearly pointed out by the Dutch foundation Kennisnet, when they summarise their experiences after more than 15 years of monitoring ICT use in Dutch schools. These findings are most likely to be true irrelevant of the age of the learners since they regard the learning environment more than the learner himself." (Kennisnet Foundation Papers, 2013-2015)

On the other hand, the EU Commission initiative "Opening up Education" ([http://europa.eu/rapid/press-release\\_IP-13-859\\_en.htm](http://europa.eu/rapid/press-release_IP-13-859_en.htm)) was founded on the belief that "by using digital technologies in education, the learners simultaneously develop digital skills, as well as other skills that are relevant for the 21st century". Unfortunately, the Survey of Adult Skills (PIAAC, 2013) concluded in 2013 that "one out of three young European shows low levels of ICT proficiency".

Things are definitely improving, though, as the Innovative Teaching and Learning (ITL) Research study, which was conducted across seven countries and 154 schools, demonstrated that innovative teaching, using ICT, supports students' development of the skills "that will help them thrive in future life and work". Also, the study concluded that: "ICT integration is an important enabler to innovative teaching. To support integration, students' access classrooms is an important factor. Survey data show that student access to computers in the classroom is more strongly associated with ICT integration than is teacher access, and both are stronger predictors than access in public areas such as computer labs or libraries."

Finally, the book *Improving Adult Literacy Instruction. Options for Practice and Research* by Lesgold and Welch-Ross (eds), concluded that "after years of absence from formal learning situations or having negative earlier schooling experiences, adult students can be intimidated by

overly structured, test-centered programs". Many times these programs, full of young people, presume basic computer literacy or English proficiency, and they do not take into account how adults who have not been involved with ICT use can be intimidated and anxious about adopting these new roles in unfamiliar educational settings.(Stanley, 2003).

### **Mobile and continuous learning**

Currently 90% of the EU population owns a mobile device (Spring, 2015), thus the expansion in mobile learning will continue to grow while the content authoring will take under consideration mobile and wearable devices. With Mobile learning, we encourage anywhere, anytime learning. More and more people nowadays need access to learning materials while they are on the go and continues learning is a necessity for the today's people who are literally born with a connected personal device. Reach to underserved children, is possible using low priced mobile phones and tablets. Continues learning especially in children from poor or resource-challenged communities that may work, or don't have access to formal school systems, is essential for their education. Mobile learning has created also an interest of learning software programming languages, for example Codecademy that teaches people via interactive lessons how to write software and has more than one million of students. With mobile learning, we can improve twenty-first century social interactions. Video sharing, especially through Youtube, Vimeo and other video-sharing services provide users a vast of educational material that can be viewed and learned easily in mobile such as tutorials and full lessons. Availability to touched-enabled phone devices has changed the way that elderly interact and communicating with their families, or take online courses for fun. In addition, mobile devices that enable students and adults to access educational material, provide the opportunity to capture and share knowledge in return, by exchanging roles students to become teachers to other adults or fellow students. The UNESCO Survey Turning on Mobile Learning in Europe. Illustrative Initiatives and Policy Implications. (Paris 2012), considered several projects at European, national and local level in order to find out the factors influencing mobile learning (drivers, barriers and success factors) and to develop a few policy recommendations at the macro level (Governments, Ministries of Education and other policy makers), at the meso level (research institutions, telecommunications providers, information technology, IT companies and non-governmental organizations or NGOs), and at the micro level (school leaders, teachers, parents and students). Finally, with mobile and continues learning we can enable a personalized learning experience that will complement and extend existing education and schools not only by digitizing current educational systems but allowing students to choose their own paths in learning, in their own pace and follow their passions and talents.

### **Gamification – Make learning fun**

It's not a secret that most learning is boring, but with 5 million people spending on average of 45 hours a week on games, they can be an important tool that can be used in education. The idea for gamification was born in 1980s growing games market, with games taking a more educational based route with real-life aspects becoming part of game play. Gamification is the use of game

design and mechanics to enhance non-game contexts in general games in any form increase motivation through engagement. There are a variety of ways to introduce the classroom to the gamification of education such as 1) Personalized learning experience that involves creating unique pathways for each learner so that the training is performed per individual needs. For the learning designer, this means abandoning the linear approach that presents learners with one route along the learning path and thinking of ways to tailor the course to each person, based on the decisions they make when posed with challenges. By using branching scenarios, learners branch down different pathways through the course. Scenarios pose the challenges to learners and the decisions the learners make have consequences and example authoring tool to design branching scenarios is Elucidat. To take adaptive game one step further you can use multiple variables in each question or challenge so the learners must weigh up options and make tradeoffs, to make players consider cause-and-effect relationships, weight multiple options and prioritize their efforts. 2) Gamify grading by abandoning grades and introducing experience points systems. Students grades are determined by the amount of points they have accumulated at the end of the course, how much they have accomplished. Using experience points allows educators to align levels with skills. 3) Award students with badges for each assignment completed, to track progress and encourage perseverance. It is important to add value to badges, like bonus points, skill levels etc. 4) Integrate educational video games into curriculum in which the students are allowed to fail, overcome and persevere. Students control the choice they make in the games with instantaneous feedback and rewards given by the game itself. 5) Competition: Learning is motivational when its social and fun so appeal to learner's competitive instincts and create opportunities to challenge them against some else. Adopting "tournament" modules incentivize students to learn the material and practice to compete other students for recognition in the leaderboard. 6) Gamify homework to encourage informal learning: Ultimately educators are hoping that games translate learning into informal environments, due to the fact the hours in the day for educator is not enough. Games allow the curiosity on a subject and learning to continue after class hours.

### **Data analytics**

Today data analytics are more accessible than ever. Detailed data can tell a lot about their learners and courses. They can also reveal learner preferences, which can help you decide on other learning that should be offered or existing to be enhanced. Data gathered over time for individuals or for a complete course or institutions can help understand the learning process and uncover learning patterns that have a major impact to the stakeholders. Traditional Types of data gathered from schools, universities and educational institutions contain learning data such as: location, previous learning activities health concerns (physical and emotional/mental), attendance, grades, socio-economic data, parental status etc. Currently most schools and universities do very little with this wealth of data, they store and aggregate to create annual institutional profile reports and statistics. Different EU legislations prohibit academics and educators to access data that is not relevant to the class they teach. Even a simple analysis of existing institutional data could raise the profile of potential at-risk students or reveal patterns that indicate the need for additional

support. On the contrary, New types of data can be captured and mined. In terms of learning analytics, the growing trend of capturing how learners interact with content, is driven by the increased attention in online learning. For example, Moodle captures significant amount of data, including time spend on a resource, frequency of posting, location, number of logins etc. New generation tools such use the data to analyze social networks, degrees of connectivity and peripheral learners. A new area that institutions are overlooking relates to distributed social interactions learners engage in daily is Facebook, twitter and social networks. Potential models are already being developed on the webs that would translate well to school settings such as Klout, which measures influence through a network and Radian6 - Salesforce marketing cloud, which tracks discussions in distributed networks. There are a lot of discussions also about data ownership and privacy behind what is happening in learning analytics. For example, questions like who owns the learner-produced data, and who owns the analysis of that data, who gets to see the results and how much learners need to know about the data being collected and analyzed. Learning analytics can reshape education. Over the past decade, calls for educational reform have increased, but very little is understood about how the system of education will be impacted for the proposed reforms. We need data to based reform activities, and learning analytics can play this role, once we better understand the learning process, the inputs, outputs and factors that contribute to learner success then informed decisions can start supported by evidence.

### **Social media**

Social media is everywhere in society and its usage is expanding at a fast pace all around the world, especially among the students. In the last years, professional social media platforms are being used alongside authoring tools and learning management systems. Digital learning professionals are beginning to see the benefit of using social media platforms to encourage peer collaboration and support learning initiatives. Teamwork can increase those skills, as students can learn how to communicate, cooperate and compromise on decisions together. T

The social media research company “We are social” showed that 78% of the total population in Europe (including Russia) were unique mobile phone users. Internet penetration was of 68% and 40% of the total population used social networking sites.

The book by Fernandez-Villavicencio (2010): Helping students become literate in a digital, networking-based society: A literature review and discussion. *International Information & Library Review*, 42(2), 124-136 highlighted the importance for all individuals to become information and media literate in this digital world in which we now find ourselves. Additionally, the author states that social networking tools, including the rich portfolio of applications they encompass, can substantially assist people in achieving that goal.

### **Augmented reality**

Augmented reality is defined as an on-demand learning technique where the learning environment adapts to the needs and inputs from learners (Klopfer, 2008), environment does not

have to be constrained into the physical learning environment such as classroom, but could refer to such learning environment as digital learning environment, through which learners can stimulate discovery and gain greater understanding, meaning merging the real environment with virtual information in real-time is becoming easier to achieve. Simple online tools can help digital learning teams create highly engaging and interactive experiences for their users easily and at very little cost. Augmented Reality(AR) has great potentials in education, by redefining, eLearning.As AR advances, there could be significant benefits from the perspective of pedagogical effectiveness of experiential and collaborative learning processes. Pedagogical principles that are addressed by AR include physicality, embodied cognition, situated learning, and mental action. AR offers an innovative learning space by merging digital learning materials into the format of media with tools or objects, which are direct parts of the physical space, therefore creating "situated learning." Augmented Reality applications can also make textbooks "alive," which is thus defined as AR books. They are normally accessed in front of your computer's webcam, with digital information appearing. Examples include Dragonology and Zooburstis and AR-Dehaes that helped students visualize and perform spatial engineering tasks (Martin-Gutierrez, Saorin, Contero, Alcaniz, Perez-Lopez & Ortega, 2010). In Augmented Reality learners control their own learning, through the active interactions with the real and virtual environments. AR-based eLearning can run on normal mobile devices such as iPhones, iPads, smartphones, PC tablets, etc. using a downloadable application. AR is now revolutionizing the way we teach and learn, making these experiences more entertaining and rewarding.

#### 1.1.4. Internet safety

The Alexandria proclamation in 2005 defines information literacy and lifelong learning as the "Beacons of the Information Society, illuminating the courses to development, prosperity and freedom. Information literacy empowers people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. It is a basic human right in a digital world and promotes social inclusion in all nations" (UNESCO, 2005). Therefore, information literacy enables people to interpret and make informed judgments as users of information sources, as well as to become producers of information in their own right. Information literate people are able to access information about their health, their environment, their education and work, empowering them to make critical decisions about their lives, e.g. in taking more responsibility for their own health and education.

In a digital world, information literacy requires users to have the skills to use information and communication technologies and their applications to access and create information. For example, the ability to navigate in cyberspace and negotiate hypertext multimedia documents requires both the technical skills to use the Internet as well as the literacy skills to interpret the information.(WSIS,2015).

The latest Internet World Statistics for 2016 ([www.internetworldstats.com](http://www.internetworldstats.com), 2017), are indicating the increasing number of internet users on all continents, ranking Europe second after Asia with

an estimated 17,9% of the world internet usage. However, a significant number of countries within the European Union among them Cyprus, Greece, Bulgaria and Italy, are indicating a low internet usage. Although the Internet an essential part of the daily life for today's citizens many of them, some parts of the population are still excluded from media literacy in the digital environment (Europe 2020 Strategy), Over 50% of Europeans use the internet daily – but 30% have never used it at all! Moreover, disabled persons face particular difficulties in benefiting fully from new electronic content and services. As ever more daily tasks are carried out online, everyone needs enhanced digital skills to participate fully in society. The Digital Agenda tackles the digital divide. Therefore, aiming to face a potential crisis of shortage of employees with digital skills across the EU, it emphasize the need for enhancing digital literacy, skills and inclusion promoting the goals of the Grand Coalition for Digital jobs and skills (European Council, 2013).

Consequently, Internet safety becomes of paramount importance, since the digital citizenship includes young people who appear to formulate the biggest portion of digital and internet users. Following the measures agreed in a Europe-wide voluntary agreement brokered by the European Commission in 2007, on June 9 2010 the European Union introduced the 3rd implementation report of the European Framework for Safer Mobile Use by Younger Teenagers and Children by GSM Europe. (Vice-president, Agenda, & Kroes, 2010).

The recent November 16th, Internet Safety Forum 2016, held in Luxemburg discussed with all stakeholders the latest trends, risks and solutions related to online safety. SIF is organized in the framework of the European Commission's Better Internet for Kids strategy with funding provided by the Connecting Europe Facility program (CEF).

Based on the above, internet safety awareness and relevant skills to safely navigate cyberspace, should be one of the pylons of any 21st century citizenship framework. Therefore, the grade majority of worldwide Educational Systems are incorporating internet safety across the curriculum for all subjects and disciplines.

Edu Web, Erasmus+ Project aims to promote the EU goals towards the enhancement of Digital Literacy, skills and inclusion. Essentially, project's partners coalition, will have to incorporate, besides digital literacy towards creative web, supportive material and learning activities in order to educate illiterate adults in internet safety. Thus, the effort to combat digital exclusion having "digital natives" educate "digital immigrants", will have to be supported by material and tools resulting from both best practices and pedagogy around internet safety, within Europe and worldwide, which will be in more detail found in the following chapters.

According to Dr. Charles B Hall at the Einstein College of Medicine in New York (Turgeon Claire, 2010) using the internet can help older people to delay a decline in their cognitive abilities and fears. Therefore, the skills they have to develop towards internet usage, will evidently include the ones on internet safety, in order to feel secure enough to experience all web activities including

communicating, shopping, staying in touch with families and friends, doing their taxes, downloading movies.

As a final point, the number of policies, initiatives and projects not only in the EU but worldwide, highlights the importance of internet safety towards digital literacy. The American National Center for Missing & Exploited Children, the Australian Institute for Family studies, the UK safer internet center, the Russian Safe Internet League(Roskomnadzor), the Safer Internet Ireland Project are only few examples demonstrating the importance nowadays societies and policy makers are dedicating aiming to support digital citizenship with a safer internet.

## 1.2. Examples of good practices on Internet use by adult people

A number of projects on adults' digital skills and, particularly on young children educating adults on digital literacy, have been taking place the recent years both in Europe and internationally. For this report, the authoring team collected a few projects to describe as good practices, based on the following:

- Projects that derived from European Policies (e.g. Digital Champion), international/European trends (e.g. GRAKIT), and national initiatives (e.g. Young Coaches for the internet)
- Projects closely related to children educating adults
- Projects that the project team knew about

The information presented for each project was taken from the projects' websites, relevant project documents and deliverables, and where possible from papers and conference presentations published. For each project, some basic information is given (type, duration, website and coordinator), a description of the project and possible contribution of the project in the EduWeb Model.

### 1.2.1. Young coaches for the Internet (Cyprus)

Type: national programme

Duration: annual since 2012

Website: <http://youngcoaches.pi.ac.cy>

Project coordinator: Cyprus Pedagogical Institute

#### *Project Description*

The Young Coaches for the Internet Programme is coordinated by the Cyprus Pedagogical Institute and is supported by CNTI, Microsoft, PCCPWC and Young Volunteers. Young Coaches for the Internet envisions the involvement of students in the training of other people regarding the safe use of the internet. With their school teachers' guidance and support from experts on the matter, young coaches are invited to develop an action plan for their school unit. They design, as well as develop and implement, actions with the aim to inform the public on Internet related issues.



Young Coaches are also called to train the audience on how the internet can be positively exploited using excellent, wise, pleasant and creative ways while also provide advice on how one can be protected from its challenges and risks. The young coaches are furthermore, responsible for educating their peers, classmates, friends as well as parents and teachers on online dangers and ways to be protected. The actions administered may be not limited to the young coaches' school environment but can be further expanded to include their communities and other related on the matter actions.

Why Young Coaches for the Internet? It is obvious that children seek for their peers' opinion on various issues that they face. It seems that there is a greater understanding between peers on both how they talk about issues that matter to them, as well as the ways for resolving issues thereof. Especially on internet related matters, the Young Coaches for the Internet programme has been developed on the aforementioned basis and it is based on the fact that peers share similar experiences and competences, since internet is a daily tool in their lives.

Additionally, mutual learning on issues that are of interest to students, requires first and foremost their understanding on the issues, grasping the knowledge, and finally the ability to transmit the knowledge acquired to others. Through this process, students do not only acquire knowledge on the matter but they develop at the same time significant competencies for their personal and social development, like:

- Collaboration skills
- Ability to develop an action plan with objectives and activities
- Problem solving skills
- Reflection and self-evaluation
- Communication, sharing and dissemination of knowledge
- Cultivating attitudes and values

At the same time schools and teachers have the opportunity to receive support and be directly informed on the subject by experts while also having the opportunity to contribute to positive actions in their community. As a result, schools may want to participate in the Young Coaches for the Internet Programme because:

- Students show more confidence in the opinion of their peers.
- Students know what is more useful and interesting for their peers and can provide information and support with sincerity and meaning.
- Parents are more likely to be interested in participating in training courses, if their children have a central role in these activities, while students are in parallel intermediaries to raise awareness of parents.
- The dissemination of knowledge, ideas and experiences among children enriches and widens their understanding on the subject.

- By educating others, students are involved in the learning process as they need to explore and explain their ideas to others.
- Students develop organizational and design skills when preparing for their activities. They also have the opportunity to improve their communication skills and take responsibility of their own learning.
- Through collaboration with other students at their school and the support from experts, young coaches will have the opportunity to give and receive feedback while also evaluate their learning.

The programme requires six steps, which are supported by both face to face school visits, online and telephone support. At the same time an online portal has been developed, both as platform to support the participants (uploading and sharing their work, access to guidelines and useful material and tools) and as a platform to share and disseminate the programme outcomes and good examples.

Regarding the process the following steps are followed:

- The school and the teachers submit their interest for participation in the programme describing their vision for the programme based on a school-based need analysis. The school appoints the teacher(s) who will be guiding the young coaches through the year and selects the students who will become the school young coaches.
- An expert, which is appointed as the school coach, visits the school in the beginning of the year and introduces the school and the young coaches' teacher(s) to the programme
- The expert, along with the teacher, give initial trainings (4x40' workshops) to the students to become young coaches.
- The young coaches are supported to develop an action plan for the school year.
- The young coaches design their activities, they implement them and they reflect on their experience.
- They young coaches share their work with others, including trough a school conference for all the school community (students, teachers, parents, community) and through the programme's final conference where all the schools participate.

More information on the programme as well as examples of the young coaches activities can be found at the project's website <http://youngcoaches.pi.ac.cy>

#### *Possible contribution*

This programme can be a very useful baseline to use for the EduWeb project both for content but also for the process and proceduresto be followed, in order for the programme to run.

Regarding the process the training of the teachers, the training of the students, the students' participation in designing the activities (in the EduWeb case the design of lessons and content for

adults), the implementation of their activities (in EduWeb case the delivery of instruction to adults) and finally the reflecting on the whole process, can provide very useful insights on the designing of the EduWeb training model.

Regarding the content, even though the young coaches implemented activities within their school, some good examples can be driven from actions where young coaches trained their parents and teachers, actions where young coaches visited other schools and taught younger children, actions where young coaches organized workshops for the community and delivered them. The educational content and material of these trainings/workshops that the young coaches developed, can give good ideas for the educational content for EduWeb as well. At the same time, training material aiming the teachers and students, as well as the programme guidelines and tools can be of great value.

### 1.2.2. GRANKIT

Type: LLP project under GRUNDTVIG

Duration: 2014-2016

Website: <http://grankit.eu>

Project coordinator: University of Nicosia

#### *Project Description*

The GRANKIT project aims to promote active ageing and intergenerational solidarity through developing an innovative ICT training course for a special segment of older people, grandparents. The project helps grandparents acquire the necessary ICT skills, in order to participate in the modern world, both for pleasure and for business. Grandparents are professionally trained in this field with the help of their grandchildren who use their current knowledge on social networking. Intergenerational solidarity has a final stage with the launching of the GRANDS HELP DESK on the web/platform where grandparents in their turn can offer support, help and guidance to children who are in need.

The project attempts to explore and make the best use of the relationships that develop between the first and the third generation of members of European families through the provision of ICT opportunities for learning. The project target groups are grandparents and grandchildren from the four participating countries. Grandparents who might be educated (but not necessarily computer literate) are trained with the help of their grandchildren to acquire basic ICT skills and participate in social network groups.

The project was implemented in 5 stages:

#### 1. The first stage: Family learning issues and participants' needs (survey)

The survey describes the issues related to intergenerational learning and active ageing with regards to the aspect of "family learning" as a private domain, within the European context. Through the use of interviews, observation and questionnaires, it identifies current ICT knowledge

and skills of target groups who participated in this project, as well as related perceptions, views, relevant family facts that can assist the development of the project. Grandparents' current knowledge and ICT skills vary depending on their previous profession and educational background. Although a number of grandparents might have been educated in other fields, they might have not be computer literates or they might have not the skills required for the use of social media tools. The target group of grandparents could be both educated and non-educated individuals as they were trained to acquire the new skills or revise the existing ones.

## 2. The second stage: Development of ICT course for grandparents

The main aims of this stage was to plan, design and produce an ICT training course for the main target group – the grandparents and also to design a simplified training course for the other target group – the grandchildren, who were involved in the last stage of the formal training that had to do with the social networking. Both ICT courses were based on the needs of the participants as identified by the analysis of the survey data. The course had four main components: Basic Computer Skills; Word processing; Internet, email; Social networking tools (Facebook, Twitter, Google Talk and Skype). The course was developed in English and then translated into the national languages of the partners (German, Greek and Romanian).

## 3. The third stage: Implementation of ICT courses

The main aim of this stage was the actual implementation of the ICT training courses mainly for the grandparents and to a small scale for the grandchildren who were involved in the teaching and training of their grandparents. Grandchildren were involved in the last two parts of the training course dealing with the "internet and email" and "social networking." The grandchildren role was then to teach their grandparents on how to use social network tools, i.e. create a Facebook and a Skype account.

## 4. The fourth stage: Setting up a network of communication

The fourth stage was focused on the use of the social network tools. Grandchildren taught grandparents how to create a Facebook or Skype account and used social networking so that they could "Keep In Touch" (GRANKIT) and communicate with members of their family living away, old classmates, friends etc. The most challenging element at this stage was the creating of a "GRANDS' GROUP," which enabled participants to communicate with each other in order to exchange ideas, experiences, views, and practice the skills acquired through the project.

## 5. The fifth stage: The "GRANDS' HELP DESK" - Innovative Platform

The aims of this stage were to organize the evaluation of the target groups' participation in the project (through questionnaires), as well as the project's goals and to recruit volunteers for "GRANDS HELP DESK, " where participants were given the opportunity to help children and teenagers in need.

Through the GRANKIT project, it seems that the ICT skills enabled grandparents to be part of their grandchildren's lives, offered their help and guidance and at the same time opened new links with

the outside world. As a result grandparents' self-confidence and self-esteem were increased and loneliness and isolation were minimised. Grandparents became active citizens using new technology. By getting involved in the "GRANDS HELP DESK" volunteer grandparents provided young children with support (help with homework, personal or family problems, difficulties at school life, bullying, anti-social behaviour, counselling on several issues). The skills enabled grandparents to communicate with their grandchildren or other children in need; grandparents used social network groups with the aim of providing support, guidance and help children, which also resulted in reducing their inactiveness, isolation and loneliness and becoming active citizens who can have access to the digital world.

### *Possible contribution*

The needs analysis deliverable for the GRANKIT participating countries can give a starting point on defining the EduWeb training content. The ICT skills syllabus developed could also give some ideas to the EduWeb children for designing their own trainings for adults. Finally, some good practices that the GRANKIT children followed to help their parents and lessons learned can be of great value.

### 1.2.3. InetRisks-Changing Attitudes of Adults (parents) on Internet-Related Risks for Young Adolescent

Type: Cyprus Research Promotion Foundation funded project

Duration: 2008-2010

Website: <http://www.pi.ac.cy/inetrisks>

Project coordinator: Open University Cyprus

### *Project Description*

The project aimed at the measuring of attitudes of parents towards their children use of the internet. In order to do so, ten teacher families from Cyprus and Greece, parents and their children, went through collaborative activities for six months, during which they used the virtual online environment Second Life και Teen Second Life. At the same time, they shared activities for digital competences such as shopping online, visiting a virtual museum, listening to music, watching a video, communicating in social networks and so on.

The design phase of the project plan was a three-step process that involved:

- proper selection of the subjects,
- requirements and description of the activity scenarios and,
- methods to record and analyse the participants' thoughts, beliefs and actions before, throughout and in the end of the each activity scenario.

The proper selection of the subjects focused on parents (of 12-16 year old girls and boys) who are teachers. Three types of adults (parents-teachers) were identified:

- Computer illiterate, meaning people who do not consciously use computers in their daily lives themselves,
- Technophobic, meaning people who independently of their level of competence abhor consciously using computers in their daily lives themselves,
- Computer arrogant; with term referred to adults (parents-teachers) who do use, often and probably well, certain software tools (such as MS Office) but have little contact with video games and other Internet activities common to adolescence. This category included some Computer Science teachers.

The activity scenarios to be realized in the virtual learning environment (VLE):

- promoted the collaboration between the participants and furthermore, between the participants and other online users,
- promoted the constructionism (avatars can create their own artefacts and see the immediate results of their actions on the artefacts) and,
- Typified some of the adults' perceived online dangers.

At the same time a list of activities outside the VLE were prepared so as parents and children shared knowledge and skills on situations that they often encounter with (e.g. buying an air ticket, listen to the news, watching a video, search for information, handle their social network profile and so on), while at the same time discussing possible risks.

In addition to that, through the implementation of activities especially designed for the Second Life environment, the participants gradually felt confident to explore the possibilities and the dangers of the environment on their own way and by themselves. For this reason, an essential point was primarily to inform the subjects about ways to defend themselves when found in a "dangerous" situation by using the possibilities of receiving online and/or offline help. Another activity scenario involved taking part in an event that seemed "dangerous" in the first place, judging only by its name and short description provided in the events lists. The subjects read the lists of the events (i.e. the title and description of each event) and selected the ones that they wished to participate (actively or not). The opinion, thoughts and fears about the event were asked prior and after the participation of the subjects in it.

The results of the project indicated that there was a change in the understanding of their children dangers online while there were some cases that a change of attitude towards these dangers could be seen. One of the major finding was that the collaborative learning between the parents and their children was of great value, not only because they spent time with their children and they understood each other's "world" but because they built knowledge and skills, based on each other's experiences.

#### *Possible contribution*

The list of scenarios and their content could be a pool to draw from, for activities on online affordances and dangers that that children would like to include in their trainings for the adults.

#### 1.2.4. Digitally Family

Type: synergy

Duration: ongoing

Website: <https://digitallyfamily.com>

Project coordinator: Bournemouth University

##### *Project Description*

Digital Families is a project that hosts a series of workshops focusing on improving families' digital skills, and supporting the co-production of digital media. Its primary aims are to:

- Develop parents' and children's levels of digital literacy
- Promote further family engagement in community services
- Foster a culture of family learning to support children's education
- Particularly for children with Special Educational Needs

This project is funded by Samsung UK, undertaken by Bournemouth University, hosted at IPACA (Isle of Portland Aldridge Community College), supported by Aster Homes and Skills & Learning BDP.

The Digital Families project runs various workshops, while a number of activity guides are hosted on their portal in order for the workshop participants to revisit the steps if they wish, or for anyone to follow along.

##### *Possible contribution*

The activity guides in terms of content, structure and design can give excellent ideas to children while designing their own for their trainings for adults.

#### 1.2.5. The Cyprus Digital Championship Case (2013)

Type: Digital Championship initiative

Duration: 2013

Website: <https://sites.google.com/site/go4digisocialliteracy>

Project coordinator: Aradippou Lyceum

##### *Project Description*

In February 2012, the Digital Championship initiative was launched by President Barroso and Vice-President Kroes. Digital Champions are ambassadors of each EU member state in order to help promote the benefits of an inclusive digital society. Each Digital Champion develops initiatives in their country aiming to get people more digital and advice EU Committee on its policies.

Within that frame, the Cyprus Digital Champion organizes every year the Digital Championship. The Championship is a Digital Innovation Competition aiming to promote Digital Agenda's pylons and promote the development of innovative digital products. It's addressed to both students,

scholars and professionals who are invited to propose, depending on their category , mock-prototypes or functional digital models which promote digital market, support digital society or Social Entrepreneurship within a digital world.

The winners of 2013 Digital Championship in student category were two students from Aradippou Lyceum. Their mock-prototype proposal under the name “Go4DigiSocialEULiteracy” was an adult, blended training model, designed to be processed and managed by middle high school students. The mock-prototype was demonstrated using google sites and can be found on <https://sites.google.com/site/go4digisocialliteracy>

The model developed by the students, was designed to support basic digital skills to illiterate adults aged over 60 years old in order to be able to use internet.

The students following a focus adults group needs study combined with a mini needs assessment questionnaire among their and co-student families, defined the main content of adults digital learning interests based on their everyday tasks. They consulted their ICT teachers to create the framework of the curriculum and designed a training scheme for students-instructors and adults-learners. They next created a Web Based platform aiming to support the recruitment of student trainers, adult learners, learning material, learning activities and tools to remotely support both students-trainers and adult-learners.

In order to verify the effectiveness of the whole idea and implement the prototype, they designed and offered a mini course to a group of eight (8) local adults aged 60+. The group was trained by a group of four (4) students in rotation within a blended environment, that was F2F in a school IT Lab and remotely supported using the remote support tools offered on web based platform.

The whole process was video captured and documented. Both groups, student-trainers and adult-learners, described their experience as unique and very helpful, but most of all a chance to be useful and be active part of the society. Students expressed that finally, their digital skills were used to support community purposes. Adults proudly announced their enrollment to digital society and began to advertise the program among their fellowships who wanted to also take the same courses.

#### *Possible contribution*

Despite the popularity the project had among Aradippou citizens and school students, a functional model based on the mock-prototype was not implemented by authorities, but still remains a good practice for similar adult training models such a EduWeb expects to become.

#### 1.2.6. The G&G (Grandparents and Grandchildren) Project

Type: European funded project (e-learning, Grundvig, Leonardo)

Duration: 2006-2011

Website: <http://www.geenqee.eu>

Project coordinator: EU member state countries



### *Project Description*

The Grandparents and Grandchildren Project is another European success story for social inclusion (EU Committee, 2010) earning the EU award 2010 Lifelong Educational Projects in support of social inclusion. The Project was initiated in 2006 within the framework of e-learning 2006 program and completed in 2011 through Grundvig(2008,2009) and Leonardo EU funded programs. It was proposed and developed by twenty-four (24) partners from EU member state countries (<http://www.geengee.eu>)

The idea was the youngsters to train the elders in the basics of internet, e-mail. The initiative had a strong local characterization, and implies the involvement and commitment of local stakeholders and sponsors, local schools and students, local elderly citizens.

G&G aimed to (a) improve by little steps the digital literacy of elderly people to foster their full citizenship in the digital society (b) use the communication technologies as a mean to stimulate and encourage both intergenerational learning and mutual understanding between generations respecting the linguistic and cultural diversity of all stakeholders.

The process of training was proposed based on three domains: (a) a tutor trains the grandson (b) each grandson trains a grandparent (c) the grandparent practice alone in a lab.

The G&G initiative resulted to the creation of a web based setting which provides the following free teaching resources for all schools or training institutions that wish to organize G&G seminars with their students: (a) tools for tutors( Tutors training set, tutor handbook) (b) manuals for grandsons and grandparents (c) on-line exercises on six learning units (browsing web-pages, searching and finding information on the web, using email, social networking (skype, facebook), word-processing(open office). Feedback forms from grandsons, grandparents and G&G staff are also available as well as promotion material.

The G&G project partnership's web site and supportive material is available in nineteen (19) EU member state languages, it can be downloaded and used for free, and is open to be used by any institution or school wishes to implement the program, as far as copyrights are respected and quoted. In addition, any part interested to join the project partnership, especially from countries with other language than in project an extended partnership is available, as far as, specified procedures are to be followed.

### *Possible contribution*

The multiple language projects' website offers a variety of supportive material and along with good ideas as Freebies and dissemination material can facilitate WebEdu portal design and development. In addition, can be a good starting point for all stakeholders when designing their own content and procedures.

### 1.2.7. MYMOBILE (UK, Italy Germany, Belgium)

Type: European funded project (Grundvig)

Duration: 2011-2012

Website: <http://www.mymobile-project.eu/>

Project coordinator: EU member state countries

#### *Project Description*

In order to expand didactic and pedagogical options and to accelerate transfer in the dynamic and innovative field of mobile learning, the European project MyMobile was realized by an English/Italian/German/Belgium partnership. Within Europe, this area is unevenly developed. In some countries, especially the Anglo-Saxon sector, a great deal of experience is already available. MyMobile aimed at investigating the advantages presented by methodical-didactic options for “mobile learning” and at multiplying them at the European level.

The aim of the partnership was to cultivate exchange on existing approaches and methods in mobile learning. Within the partnership overall guidelines for mobile learning in adult education in the context of lifelong learning were developed. These general principles were applied and tested in diverse learning scenarios to form practical guidelines for multipliers which are now available in a handbook, showing how mobile learning scenarios and methods can be integrated into adult education and further developed.

The transnational partnership aimed at promoting the transfer of didactic approaches to “mobile learning” developed in various areas of Europe, while adapting approaches developed in schools or universities to the specific circumstances of adult learning outside of formal educational programmes, connecting and combining various didactic approaches.

The mutual efforts of the partners and their continuing education agencies in BE, DE, IT and UK ensured an active exchange across borders on the partners’ experience and their examples of best practice in the area of acquiring media literacy with the aid of the mobile phone.

This partnership intentionally brought together representatives of the scholarly and practical realms. All partners have extensive experience in continuing education; the Belgian and German partners are active in the specific field of promoting media literacy. The British and Italian partners have already worked for several years on theory and practice of conceptions for mobile learning.

Among the strengths of the projects, there was the use of mobile devices as cultural / learning resources to achieve identity formation, social interaction, the derivation of meaning, entertainment. Mobile devices can provide multiple learning opportunities such as: (1) supporting exploration and widening the learning context; (2) enhancing self-expression and self-representation; (3) enabling media production;

(4) supporting social networking and connections. Also, the high degree of personalization of mobile devices and their level of penetration in everyday life (mobile devices, and mobile phones

in particular, are highly individualized, and always available in physical proximity to the subject) makes them perfect tools for inclusion and participation, enabling access to social networks and cultural resources and supporting forms of self-organized personal learning. A further strength of using mobile devices is that it enables linkage of different learning contexts: when cell phones are used in formal learning situations, it becomes possible to capitalize on the skills acquired by individuals in their daily lives, and enhance them in new ways. The boundaries usually drawn between formal and informal contexts become discontinuous, making possible the exchange of knowledge and skills, with positive effects on motivation and involvement of individuals.

#### *Possible contribution*

Besides the training scenarios which can be useful in the term of content, the recourses presented by the partnership, specifically apps and on-line tools can support teachers and students during the creation of learning material as well as adults for further creative internet usage.

#### 1.2.8. ELDY - PROGETTO SCUOLE - TRAIN THE TRAINER (Italy)

Type: Ministry of Italian Social Solidarity funded project

Duration: ongoing

Website: <http://www.eldy.eu>

Project coordinator: Eldy NGO

#### *Project Description*

Thanks to funding from the Italian Ministry of Social Solidarity, the Eldy project was developed to enhance elderly people's ICT literacy through an involvement of younger generations in volunteering activities and with a help from such a simplified free tool as Eldy, whose learning curve is extremely high.

Young people are seldom involved in volunteering projects: there is a lack of devoted information networks and they speak a language that is further and further from that of their old grandparents. The project provided for elderly people to work side by side with students attending their 3rd, 4th and 5th year in Senior High Schools in the Province of Vicenza, who acted as ICT tutors and accompanied the adults into the world of Internet and computers, transferring such concepts as email, World Wide Web, chat and many more. The students involved were about 5000. The activity of coaching was made possible thanks to Eldy free, simplified platform, where the students found facilitated learning paths for the elderly.

AIMS: • Social inclusion and digital divide reduction • promotion and strengthening of active and responsible participation within local communities by elderly and young people • promotion of youth volunteering and consequent development of positive experiences in learning, social participation and youth integration • mutual exchange of knowledge, experience, and values • Simplified access to the services offered by the public administration.

### *Possible contribution*

The tools developed to promote learning and support elderly on digital literacy, could be easily incorporated to the content aimed at young students when designing and creating their own training material.

#### 1.2.9. DIGITAL CHAMPION INITIATIVE (Northern Ireland )

Type: Digital Championship initiative

Duration: 2012-on going

Website: <https://www.ocnni.org.uk/>

Project coordinator: Supporting Communities as part of Irish Digital Champion

### *Project Description*

Since 2012, 764 adult learners have been trained in using digital technologies to support access to crucial public services. As well as developing new IT skills, these learners have also achieved Level 1 and Level 2 accredited awards from Open College Network Northern Ireland (OCN NI).

The training is delivered by Supporting Communities as part of their Digital Champion Initiative. This programme enhances the Go ON NI programme working in partnership with the NI Direct Digital Inclusion Unit. The aim of the programme is to encourage a self-help approach to community development by providing free support, advice, information and training to individuals across Northern Ireland. The training is accredited by OCN NI, one of NI's leading awarding bodies.

Teresa Donaghue who successfully completed the Digital Inclusion training programme said: "When I first heard about the OCN NI IT course, I thought no way. I don't like computers, and they don't like me. But it was the best thing I ever done."

Colm McDaid, Chief executive of Supporting Communities said: "Supporting Communities have been an OCN NI recognised centre for 10 years, this enables us to have the flexibility to develop and deliver several accredited courses, specifically Level 1 & 2 in Computer Essentials. This course has enabled those who are the most digitally restricted gain the skills and the confidence to lead a digital life. With our continued partnership with OCN we hope to play our part in reducing the digital divide in Northern Ireland"

### *Possible contribution*

Considering that one of the most popular courses delivered by the initiative was the digital inclusion essential skills, the feedback given by adults successfully could contribute towards EduWeb's proposed model.

#### 1.2.10. I DIG STORIES (Italy, UK, Poland, Hungary, Greece)

Type: European funded project (Erasmus+)

Duration: (2015 – on going)

Website: <http://idigstories.eu/it/>

Project coordinator: Diciannove società cooperativa (IT) – Errore. Riferimento a collegamento ipertestuale non valido.

### *Project Description*

The Project “I dig stories – Stories Educational Learning Facilities” was funded by the EU Commission, the Italian National Agency Indire, within the framework of the Erasmus+ programme for Innovation and the Exchange of Good Practices, Strategic Partnerships for the Education of Adults.

The idea for this project arises from the needs analysis of a European population that is in constant evolution, thanks to the contribution of new incoming or transiting people, and to the widespread distribution of digital media. The project was developed combining new educational ICT tools with the pleasure of the discovery of creative group dynamics, enabling participants to emerge from their status of social invisibility. Giving dignity back to individuals is a necessary and decisive step to build any inclusion path.

Project partners have singled out Digital StoryTelling (DST) as the best tool to achieve these goals. DST is a way to create short movies where normal people tell personal aspects of their lives. It's a relatively recent definition referring to a new practice presenting personal stories in a captivating and exciting way through ICT. In DST, students take on an active role: from passive receivers of information to makers of learning, producers, authors, assessors and co-protagonists of learning processes.

The project aims at:

- Creating and spreading a methodological guide on DST
- Training partner organisations on DST
- Adding DST to the learning tools used by the partners, so as to satisfy their educational needs during specific workshops, aiming at reaching the intergenerational and intercultural target groups
- Developing an adjustable toolkit according to feedback coming from its own implementation
- Creating an e-learning platform offering public digital space where a learning community and the exchange of learning material can take place under Creative Commons conditions
- Promoting the e-learning site and DST as new tools for the spreading of the tool-kit and the organisation of multiplier events for learning facilitators both at national and at European level.

The Partnership is made up of:

- Diciannove società cooperativa (IT) – Errore. Riferimento a collegamento ipertestuale non valido.

- Zoe Gestione Servizi Culturali (IT) – Errore. Riferimento a collegamento ipertestuale non valido.
- Anthropolis Antropologiai Kozhasznu Egyesulet (HU) – Errore. Riferimento a collegamento ipertestuale non valido.
- Danmar Computers sp z o.o. (PL) – Errore. Riferimento a collegamento ipertestuale non valido.
- Vardakeios School of indigent children (EL) – Errore. Riferimento a collegamento ipertestuale non valido.
- Liverpool World Centre (UK) – [www.liverpoolworldcentre.org](http://www.liverpoolworldcentre.org)

### *Possible contribution*

The project will deliver a toolkit on digital storytelling, which can be used by young tutors to support older people in sharing their own stories, at the same time learning new digital tools.

#### 1.2.11. MoBiL - Learning Shop and Outreach Educational Guidance and Counselling (Germany)

Type:project funded by the Ministry of Culture, Education and Sports in Baden-Wuerttemberg/ Germany

Duration: ongoing

Website: <http://www.jugendagentur-tuebingen.de/schule-beruf/uebergang-schule-beruf/16-angebote/45-teamtraining-3?sdb=999>, <http://www.onthemove-project.eu/bp1-it.html>

Project coordinator:ttg team training GmbH

### *Project Description*

MoBiL – Mobile Bildungsberatung in Tuebingen - is a project funded by the Ministry of Culture, Education and Sports in Baden-Wuerttemberg/ Germany. The main idea of MoBiL is to increase the number of people who take part in Lifelong Learning and especially to reach those ones who don't participate in any further education yet. MoBiL offers the chances to find new ways to get connected with people, to meet the target group, and to find the target group's needs.

### AIM

The aim of MoBiL is to increase the number of participants in further education and to raise the number of elderly learners. Participants shall be supported and encouraged in Lifelong Learning. MoBiL also wants to improve new ways of getting connected to low-educated people, and to increase their curiosity and interest in continuing education.

### METHOD / APPROACH

MoBiL wants to reach people in their individual environment, which means educational opportunities and counselling come to the target group – not vice versa. MoBiL is based on different components:

1. The MoBil-Lernladen (learning shop), which is a fixed contact point and a low-threshold place for learning and guidance. During the opening hours everybody can come in without an appointment and is getting information about further education. Computers are also available and can be used by the visitors for individual research.

2. Mobile guidance in the target groups environment which means: welfare & social work places, schools, train stations, market squares, soccer tournaments, districts, advisory centres etc.

3. Low-threshold, target group oriented workshops, e.g. intercultural meetings, how to use the Internet and Social Media, German as a foreign language, application documents etc. MoBil also offers to assume the costs of an education course to help to motivate people to get involved in further education.

The main approach of MoBil is to “arrange relations via relations”, which means to get connected with the target group and offer them a way to education through already existing relations and connections.

#### IMPLEMENTATION / TRANSFERABILITY

To meet the target groups in their individual environment is the main character of the project “MoBil” and an approach which is transferable to any other vulnerable group and helpful for any kind of education. The learning shops are an important aspect of the project since they offer an easy access. Additionally it is crucial to inform staff from as many aid organisations (or similar institutions where the target groups might be available) as possible about the project and its offer.

#### *Possible contribution*

To meet the target groups in their individual environment is the main character of the project “Mo- Bil” and an approach which is transferable to any other vulnerable group and helpful for any kind of education. The learning shops are an important aspect of the project since they offer an easy access. Additionally it is crucial to inform staff from as many aid organisations (or similar institutions where the target groups might be available) as possible about the project and its offer.

#### 1.2.12. DIGITAL LIGHTHOUSE KEEPERS - Poland

Type: European Funded Project

Duration: 2012- on going

Website: <https://latarnicy.pl/>

Project coordinator: “Cities on Internet” Association and the Ministry of Administration and Digitization of Poland

#### *Project Description*

In Poland the NGO ‘Digital Lighthouse-keepers’ uses volunteers such as local leaders, digital champions and enthusiasts of digital education, to encourage people from the 50+ age group to take their first steps into the digital world.

## AIM

According to this initiative, the main causes for digital exclusion are lack of personal motivation, fear of unfamiliar technical solutions, and a lack of ICT knowledge and skills. Therefore, the Digital Lighthouse-keepers aims to ensure that the first steps into the digital world are connected with a presentation of the advantages of ICT in daily life and at work, including an explanation of the daily activities which can be carried out online and the development of basic computer and Internet skills.

## IMPLEMENTATION

Local character of actions taken: the possibility for adults to receive support from within their environment; adults are willing to participate in events in familiar surroundings: community centers, local fire station social spaces and even private homes – throughout Poland;

Support by digital champions (PCRS lighthouse keepers): individuals specialized in introduction of adults into the digital world (social animators, local community leaders), trusted by the community, creative, skilled in mobilizing support for local actions. Such support is at first expected from relatives and friends: family, local leaders and co-workers:

Creative model for didactic actions: departure from formalized, certified courses conducted by specialists, IT experts who focus on ability to use the hardware and software, in favour of social „educational events”, motivating in nature, pointing to real benefits of the Internet and electronic communication, dissolving fears and demystifying preconceptions about drawbacks and challenges of using the Internet. Actions in favour of digital education should be accompanied by other activity: cultural, social and entertaining;

association of benefits of the Internet and personal needs: in the process of introducing adults into the digital world, the deciding factor will be the identification of individual motivations and needs, only then followed by an effective training of technical abilities. From that stems the need to address actions to specifically defined target groups

The nation-wide campaign granted presence in every municipality across Poland, reaching of ca. 60,000 individuals.

### *Possible contribution*

The creative model for didactic actions based on social „educational events“ is considered a good practice when designing tools for adults needs assessment in order to define main areas of interests for learning activities and scenarios to be used.



## 2. Pedagogical aspects

In this section, through the bibliography and the good practices studied, suitable techniques and learning approaches are proposed, that will be used in the educational tools, content and activities that will be designed, focusing on adults' education on Internet use, through young students. More specifically, through this section we aim to suggest the pedagogical approaches to help teachers make effective use of the required educational tools that need to be developed in order to teach the children, the actual trainers of the adults, who are digitally illiterate, at Internet use. Additionally, we suggest how these educational tools can be integrated in the educational life cycle, in order to form a number of benefits of the intergenerational learning process (such as the development of give and take relationships between the younger and older generations which will enable them to share values, and bridging gaps between generations by helping to pass on skills that enable older people to function in the modern society, specifically on how to use the internet safely).

Based on the literature review this section elaborates more on the special characteristics of each of the EduWeb target groups (teachers, students and adults) in order to achieve its aims. We expect that this discussion will lead to a better understanding of the recommendations on the approaches to be integrated in the learning activities, resources and tools targeted to each of the EduWeb audience, as well as the proposed EduWeb Model.

Finally, it is expected that the suggested EduWeb model will provide the base for the required analysis and definition of the educational tools in O2.

### 2.1. Target groups and pedagogical approaches

#### 2.1.1. Teachers training

It is generally acknowledged that promoting teacher quality is a key element in improving primary and secondary education in Europe. Recent education reform efforts have emphasized teacher professional development and continuing education, and it is widely accepted that a teacher's development spans an entire career (McIntyre & Byrd, 1998). Teacher's interest in professional development is enhanced with the use of technology. Professional development helps teachers develop skills they need to succeed in their classroom environments, to become better in writing the right curriculum and instructional decisions. Pre-service teacher education program is not sufficient to provide all the skills needed to be effective in classroom. Professional development has traditionally been offered from the ministries and departments of education to the teachers through a bureaucratic hierarchy. Good professional development encourages the use of variety of features related to knowledge, skills and practice and should focus on deepening one's content and pedagogical knowledge that can be achieved by online learning tools (such as MOOCs).

### 2.1.2. Students training

#### Theory of learning

Children differ from adults' learning in many ways, but still there are a lot of commonalities. Research has shown that very young children are competent, active agents of their own conceptual development (Bruner, 1972, 1981a, b; Carey and Gelman, 1991; Gardner, 1991; Gelman and Brown, 1986; Wellman and Gelman, 1992). Away from the theory of tabula rasa view, a new approach was given by the Swiss psychologist Jean Piaget. Piaget argued that the young human mind can best be described in terms of complex cognitive structures. He concluded that cognitive development proceeds through certain stages, each involving radically different cognitive schemes. He concluded that the world of young children represents the physical reality based on the gradual coordination of schemes of looking, listening, and touching. The following studies on perceptual learning suggested learning as an exploration of patterns that infants use to obtain information about the objects and events of their perceptual worlds (Gibson, 1969). Later on, new theories began to emerge, presenting the mind as computer and problem solver (Newell et al., 1958) presenting the cognitive development. All theories on learning though, considered children as active learners who are able to set goals, plan, and revise. Children are seen as learners who assemble and organize material. Vygotsky (1978) emphasized the active role of learners in the social environment. He introduced the zone of proximal development (Vygotsky, 1978) referring to a bandwidth of competence (Brown and Reeve, 1987), which explains how learners can navigate with aid from a supportive context, including the assistance of others. Followed researchers paid attention to the roles of more capable peers, parents, and other partners in supporting children's efforts to understand and learn (Moll and Whitmore, 1993).

Summarizing the vast amount of research on how people do learn, we can define four basic principles: (a) No evidence exists that infants come into the world as "blank slates". Young children show positive biases to learn types of information readily and early in life. These forms of knowledge, are referred privileged domains Carey and Gelman,1991). (b) Outside of these privileged domains children, like all learners, must depend on will, ingenuity, and effort to enhance their learning. Research has shown that a metacognitive competence exists in the young (Brown and DeLoache, 1978; DeLoache et al., 1998). (c) As they mature, children develop theories of what it means to learn and understand that profoundly influence how they situate themselves in settings that demand effortful and intentional learning (Bereiter and Scardamalia, 1989). Indeed, not all learners in schools come ready to learn in exactly the same way. Understanding that there are multiple intelligences (Gardner, 1983) suggested ways of helping children learn by supporting their strengths and working with their weaknesses.(d) Despite the fact that a great deal of children's learning is self-motivated and self-directed, other people play major roles as guides in fostering the development of learning in children. Such guides include other children as well as adults (caretakers, parents, teachers, coaches, etc.). In addition to people, tools and cultural artifacts, notably television, books, videos, and technological devices of many kinds (Wright and Huston, 1995) can also play a role towards learning. The concept of "communities of learners,"

face-to-face or through electronic media and technologies is nowadays very popular especially with the spread of web and e-learning.

Based on the above theories and practices, students who will act as trainers, can learn how to become trainers. Teachers must transfer their experience and instructional background to students, in order to support them to be able to (a) identify adults' needs (b) teach adults (c) create and adapt learning content.

#### [How students will identify adults' needs](#)

As mentioned in previous sections of this paper, identifying adults' needs is crucial in order to design their learning. The generation gap between digital natives and digital immigrants so called hinders the process of communicating each other needs. Therefore, tools to support young people in order to collect adults' digital needs based on their interests and daily tasks should be created. These could be in the form of questionnaires, discussions, interviews and even games. A good practice is to establish a continuous joined get to know activities program through school, as Irish Friends of the Elderly Program, suggests.

#### [How students will teach adults](#)

Little research has been done about the instructional methodology on how young students could train adults. In several similar projects, like GranKit and GeenGee, students reported that they applied a very self-directed model depending on the adults' needs and environment. In the conference proceedings held by the NUI Galway in 2011 under the title "Engaging Minds", Huiru Zheng, university of Ulster, presented how they students were engaged in a community health informatics program. The students had the chance in addition to the in classroom lessons how to teach adults, to watch on-line systems providing them with examples of what, how and which way older people learn the specific topic. At the end students designed their own user-friendly model which could be used to teach adults. That could be a good model to follow when supporting young people towards becoming adults' trainers.

In any case, a focus group, prior to create guidelines for students how to teach, is necessary, in order to determine the real student potential and give them the opportunity to contribute and create their own "teaching strategy", based on the theory of andragogy. Therefore, getting them to understand both the commonalities as well the dissimilarities in learning, will help them to overcome intergenerational gap and understand what and how to teach adults.

#### [How to create and adapt learning content](#)

The students in EU countries have incorporated within the curriculum ICT courses (Key Data on Learning and Innovation through ICT at school in Europe, 2010). Therefore, students are aware of a variety of digital tools to create and adapt learning material. Research indicates that assigning students a self-directed project in order to create a product to be used by his own, returns excellent results. Since, learning material will be used by them when teaching adults, is

considerably useful to assign students the role of learning material creators. In order to do so, supportive material by teachers will be needed.

Based on the different learning styles of each individual, the material should be created to support visual, auditory and kinesthetic learning type. Thus, all kind of tools supporting the creation of video, imaging, animations, presentations, audio etc. should be available to students-creators.

In addition, the needs defined by the task the adult wants to learn, should be well considered when preparing learning material. The student-trainer should therefore create learning material on a topic which interests adult learner. For example, if cooking is the adults interest, the material adapted by the student, should be directed on how to learn about cooking on the web. That could be similar to those interested in reading newspapers on-line, on watching or downloading a movie, on using Facebook, on having paid their taxes, on using e-shops safely etc.

The EduWeb should therefore, support students-trainers to be able to create learning content on their own, but also access content created by others for different areas of digital literacy and internet safety. That could be done by offering on-line Guides to (a) free tools (b) learning material (c) learning activities undertaken by other students. Giving them the opportunity to create content on their and their adult-trainee needs will explode their creativity, raise their self- esteem but make learning or them meaningful as they return the learning value to society and their loving ones.

### 2.1.3. Adults training

Research has shown that how people learn is, besides several other attributes, relevant to their stage of development such as age (Lowy and O'Connor, 1986); Usually, young people are viewed as “empty vessels”, considering the way they absorb new knowledge, into which teachers can pour knowledge. That cannot be said for adults, since their real world needs, prior accumulated learning experience and the ability to compare past learning to new, differentiates the principles of learning thus training.

As mentioned in the introduction of this paper the term “pedagogy” is used in children teaching. On the other hand, the term “andragogy” was invented by researchers of adult learning aiming to distinct their beliefs about learning to the model of teaching children. (Malcolm K,1968). Therefore, suggesting learning approaches for adults should consider the principles of andragogy which one implies self-directedness and an active student role, as well as solution-centered activities (Beletti, 1999).

For the purposes of this report, what follows will highlight the major approaches based on the three areas of interest for students training, which are identification of adult needs, how to teach adults and how to create and adapt learning content.

### Identifying adult needs

In the previous section, student's needs identification was based on the theory of different learning styles which evidently applies to adults also.

Despite the fact that learning styles may vary from adult to adult, for the purposes of this paper we will focus on three main learning styles. Nevertheless, each individual may use any personal preference learning style or combine any of the others.(Kelly, 2010). In any way each individual should be facilitated by any training system to understand how they learn.

### Most common learning styles

- Visual Learner

Visual learners appear to be those who learn using images. They prefer to see notes written down on paper, on slide show on screen. Thus, visual objects generated by visual tools such as images, animations, maps, charts or graphs, appear to be very effective for them to remember therefore learn.

- Auditory Learner

Auditory learner best learns by listening. They prefer listening to lectures, reading aloud or taking part in discussions on a topic. Evidently, audio generated objects such as audio lectures facilitate them to remember thus learn.

- Kinesthetic Learner

Kinesthetic is the type of learner that learns with tactile senses. This type best remembers through touching, feeling, and experiencing that which they are trying to learn. They remember by writing or physically manipulating the information (Kelly, 2010)

### Existing Skills and insights

Prior skills and insights should also be considered when identifying adult training needs (UK Department for Business, innovation and skills, 2013). Thus, any approach or tool used to assess adult needs should be able to detect existing skills and insights which will facilitate further learning and define new areas to be learned.

### Identifying adult needs using Needs Assessment Tools.

In order to identify adults' preferred learning style or styles, or existing skills and insights, a variety of tools have been developed over years. Depending on the area to learn or train a lot of tools have been developed both tailored made or generic.

Aiming to identify digital needs for an illiterate adult, it is important to develop a tool in the form of a questionnaire that will identify its learning style, its prior skills and insights but above all its daily needs, which should be facilitated and covered by being an active digital member. Its interests and needs therefore must be discoverable by the proposed tool in order to identify which learning activity is to be used under which theme and in which direction.

### How to teach Adults

Instructional methodology for adults, so called andragogy, as introduced by Malcolm Knowle(1984) in his Adult Learning Theory, is based on the following four(4) principles: (a) Adults need to be involved in the planning and evaluation of their instruction.(b) Experience (including mistakes) provides the basis for the learning activities. (c) Adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life. (d) Adult learning is problem-centered rather than content-oriented. (Kearsley, 2010).

The above principles can be applied for teaching adults digital literacy, as recommended by Knowle. The following highlights should be taken into account: (a) There is a need to explain the reasons specific things are being taught (e.g., certain commands, functions, operations, etc.) (b) Instruction should be task-oriented instead of memorization, thus learning activities should be in the context of common tasks to be performed by the others. (c) Instruction should take into account the wide range of different backgrounds of learners; learning materials and activities should allow for different levels/types of previous experience with computers and devices. (d) Since adults are self-directed, instruction should allow learners to discover things and knowledge for themselves without depending on people. Therefore, they will be provided guidance and help when mistakes are made.

### 2.2. Proposed EduWeb Approach/Model

The proposed EduWeb approach presents two elements: Process and Content. Based on this approach educational material will be designed and developed to support the areas below.

In terms of process, the following six steps are being proposed for the EduWeb model:

- Teachers' training on the EduWeb approach
- Students' training
- Students analyse the needs of their target audience and decide on the activities
- Students adapt or create new learning activities based on the EduWeb guidelines
- Implementation of adults' trainings
- Reflections

For each step above, content, material and tools will be designed and developed by the project so as to create a pool. It is expected that this pool will be hosted online and will be open to all the participants.

As mentioned above, different training content, tools and material will be used for the teachers' trainings, different for the students' trainings and different for the adults' trainings. For each purpose, the target audience characteristics will be taken into consideration as well at the fact that all trainings aim at the adults' digital literacy.

In terms of digital literacy for adults content, based on the report discussion through the literature review, as well as on a needs analysis from the above described projects, a content frame is proposed to cover seven areas of digital competences (see diagram 1 below). The projects cases described above, showed us that adults tend to use technology for purposes that are needed for their everyday lives. They will learn easier and develop the digital skills needed in context-based scenarios based on their needs.

**Diagram 1: EduWeb Content Framework**

- Communicate
- Be informed
- Entertain one’s self
- Shop
- Protect one’s self and others
- Create
- Resolve technical problems

Under each area, a pool of suggested activities using specific tools are given as examples (see diagram 2 below).

**Diagram 2: EduWeb Content Framework analysis**

<b>Communicate</b>	
activities	tools
- Email (...to an office) - Chat (...with someone abroad) - Talk online (...with their children) - ....	- Outlook - Viber - Facebook - ....
<b>Be informed</b>	
activities	tools
- Search for information on the web (...for gardening) - Read a newspaper/a magazine - Watch the news online - ....	- Search engines - Newspaper apps - You tube, media apps - ....
<b>Entertain one’ self</b>	
activities	tools
- Watch a tv programme - Listen to music - Read a novel - Play a game - ...	- You tube - eBooks .... - apps - ...
<b>Protect one’s self and others</b>	
activities	tools
- spam emails - fishing - virus - ....	- Antivirus - Filters - .....

<b>Create</b>	
activities	tools
<ul style="list-style-type: none"> <li>- Presentation</li> <li>- Picture</li> <li>- Photo album</li> <li>- ...</li> </ul>	<ul style="list-style-type: none"> <li>- Ppt, prezi</li> <li>- Photobox (... and other online apps)</li> <li>- Video editor</li> <li>- ...</li> </ul>
<b>Shop</b>	
activities	tools
<ul style="list-style-type: none"> <li>- Buy a ticket</li> <li>- Pay a bill online</li> <li>- Book a hotel</li> <li>- ...</li> </ul>	<ul style="list-style-type: none"> <li>- Websites</li> <li>- Mobile apps ..... (booking.com, skyscanner, amazon...)</li> </ul>
<b>Technical skills</b>	
activities	tools
<ul style="list-style-type: none"> <li>- Connect peripherals</li> </ul>	<ul style="list-style-type: none"> <li>- ....</li> </ul>

The above areas are to be finalized after the students' involvement in the process and after a needs analysis investigation of the adults group. The final areas should be tackled during the whole EduWeb process, i.e. the teachers' training, in order to support their students on their role, the students' training, in order to be ready to deliver the trainings/workshops and the target audience-that is the adults- with the educational content needed for their training.

It is important to mention that the EduWeb content framework on adults' digital literacy, will be further developed as part of the project output to include the competences and skills on the areas defined and will be cross-referenced with the Digital Competence Framework for Citizens (DigComp 2.0) by Europe's Joint Research Center.

### Diagram 3: EduWeb training model (content and process)

<b>Teachers</b>
- how to identify student coaches' needs
- how to teach adults (pedagogy)
- how to create/adapt content
<b>Students</b>
- how to identify adults' needs
- how to teach adults (pedagogy)
- how to create/adapt content
<b>Adults</b>
- digital literacy skills

It is expected that students will also have a role in the designing and developing the activities and content. In addition, all the activities is recommended to be hosted on an online searchable tool, so as children can easily find what they need.



We also suggest that on the project level, each partner could use a needs analysis tool for their own context, as well as have the students refine the educational content based on their target group to train.

## Conclusions

The EduWeb project proposes a model based on pedagogical aspects that satisfy the learning needs and trends of adults in the digital society that we live in. Through a rigorous literature review on adults learning, young children as trainers, digital learning and internet safety, under the European Dimension and international trends, the model identifies specific elements to take into consideration for the training of the teachers, the students and finally the adults. Through this process, EduWeb reaches the target audience of the training – adults - giving value at the same time to the teachers and students in their own training on the safe and creative use of the digital technologies, along with transversal skills on teaching and learning. At the same time, a number of related projects were studied as examples, and good practices were extracted from these examples to support the EduWeb model.

The EduWeb model proposes a process and a content syllabus, based on which, learning activities, educational material and tools will be developed and integrated in an intergenerational learning process. The model will finally promote:

- a) the development of give-and-take relationships between the younger and older generations, which will enable them to share values,
- b) patience learning and the importance of multi-paced learning, as targeted to the different ages of the beneficiaries;
- c) bridging gaps between generations by helping to pass on all the skills that enable older people to function in modern society, e.g. by learning how to use the internet safely;
- d) helping in building a more inclusive European citizenship.

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