employ

Digital skills for employability and social inclusion

Background

According to the Grand Coalition for Digital Jobs the knowledge economy is expected to drive economic growth in Europe in the near future. Over 90% of jobs are expected to require digital skills. Shortage of as much as 900.000 professionals is expected in the ICT sector or ICT using sectors. According to ICT industry insiders, for every job that is created in innovation driven sectors another 5 are expected to open in the broader economy. On the other hand, over 16M low skilled jobs are expected to be lost in an economy that increasingly requires high competencies. European initiatives such as the New Skills for New Jobs Agenda and ET2020 highlight the necessity of connecting skills built in formal and informal education to work requirements, emphasizing in this context the importance of digital competencies.

According to Europe 2020 targets 23% of EU's population is at risk of poverty or social exclusion as a result of a complex process that involves lack of basic competencies, including digital skills, and poor access to basic services such as lifelong learning. This includes individuals who drop out of school early, may have limited access to educational opportunities as a result of socio-economic challenges, or are unemployed and not being properly retrained to reenter work. At the same time more than 100m individuals in Europe are at risk of digital exclusion.

Based on the above, young learners with inadequate digital skills may be at increased risk of becoming professionally marginalized in the future due to competencies misaligned to market needs, foregoing opportunities to become socially included and civically active. Low skilled individuals, who may in the present be attracted by jobs with limited entry level requirements, may face increased professional challenges in the future as the demand for highly skilled workers rises.

EMPLOY Overall Objective

The above point to the urgent need for interventions in education and training practices towards strengthening the digital skill profiles of individuals at risk of exclusion with an emphasis on the next generation.

EMPLOY aims at developing advanced digital literacy in line with industry needs for learners in primary and lower secondary education with a focus on individuals at risk of exclusion, including learners at risk of ESL, migrants, or individuals facing socio-economic adversity. By building digital skills forecast to be in demand in the coming years the project promotes employability, fosters social equity and inclusion, and facilitates economic growth based on human capital, i.e. effectively trained future professionals.

INTELLECTUAL OUTPUTS

ANALYSIS
Analysis of the use of digital skills in education in terms of learning needs.

DIGITAL GAME
Development of Game for digital skills acquisition in school education

SUPPORT MATERIALS
Preparation of support materials for effective use of Game in education

STUDIES
Evaluation and validity studies an active learning framework

Methodology

EMPLOY deploys and evaluates active, game-based learning for exposing learners to work-inspired activities that require digital competencies, problem-solving capacity, and analytical thinking. The advantages of the proposed learning approach include increased knowledge retention through serious gaming (FAS), capacity to transfer knowledge to the real-world, learning linked to educational objectives through effective feedback, and a supportive, inclusive learning environment based peer collaboration and entrepreneurial thinking.
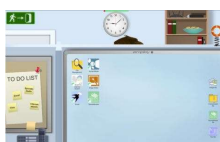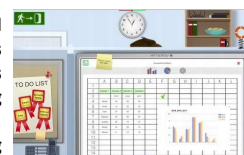
Innovation

Building digital skills among individuals at risk of exclusion, including NEETs, migrants, ESLs, individuals of low socio-economic status, and more, requires focused interventions as the lack of related competencies can affect adversely employment opportunities. According to Europe 2020 Targets 23% of EU's population is at risk of poverty or social exclusion partly due to lack of basic competencies and access to basic services such as lifelong learning. Research reveals that 12% of young people in the UK do not think that their digital skills are adequate while 18% of unemployed individuals feel the same way (Prince's Trust). EMPLOY promotes:

- Innovation at the educational design level
- Innovation at the technology-enhanced learning level
- Innovation at the learning intervention level

Results

The following most important results are foreseen from the implementation of EMPLOY objectives and activities:

1. A methodological learning framework that exploits emerging ICT, and specifically active, explorative, and collaborative learning through serious games, for enhancing key digital and STEM competencies of school learners so that they are in-line with industry and market demands fostering employability.
2. A proof-of-concept serious game for the development of ICT skills among individuals at risk of exclusion.
3. A user guide on the proposed ICT-skill building serious game which will act as a reference on game use.
4. Instructional support content in the form of good practice videos that will facilitate the integration of proposed methodologies and tools into existing school practices, enriching learning for the benefit of the ultimate end-users, i.e. learners and teachers.
5. End-to-end learning activities based on the proposed serious game for digital competencies development.
6. An evaluation strategy that will provide a comprehensive guide on how the relevance, acceptance, effectiveness, and quality of the EMPLOY serious game and instructional support content will be established through formative and qualitative evaluation methodologies.
7. Evaluation outcomes from the deployment of the EMPLOY methodologies and tools in real-life educational contexts in Turkey, Greece, France, Estonia, and Italy.

Impact

EMPLOY makes strategic use of ICT in education deploying it as a facilitator for linking learning practices to work needs. It evaluates learning benefits of serious games in specific contexts. It contributes to innovation-driven sustainable growth by promoting digital literacy that is necessary for sustaining business development of SMEs and larger companies. It broadens work options for young learners by raising awareness on professional profiles that will be in demand in the coming years and by building the skills that are necessary for entering the knowledge economy. It empowers local communities to fight unemployment and to retain talent, contributing to social cohesion and active citizenship. It promotes positive attitudes towards education through the publication of good practice paradigms on the integration of ICT into learning processes. It supports broader availability of ICT tools for educational purposes. And it enriches teacher skills sets for promoting the adoption of outcomes.

Project Partners
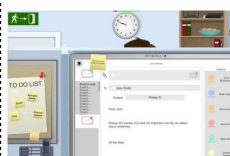
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