SKILL IT STUDY

Comparative Report
on digital skills and youth work

SKILL IT
digital pathways for youth work

partner organisations:

Youth Work Ireland

camara
transforming education

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EXECUTIVE SUMMARY

Context and research objectives

The comparative report was developed within *Skill IT for Youth – Integrating Digital and Future Skills into Youth Work* project, which aims to increase the quality of youth work, combining higher levels of excellence and attractiveness in services and programs, obtained through the digitization of youth work, with increased development opportunities for young people. The research summarized in the report aims at providing comparative data-driven knowledge on digital youth work, youth workers, youth organizations and young people's needs regarding ICT, and the labor market's needs and expectations with regards to the young people's digital skills in Ireland, Norway, Poland and Romania. *Skill IT for Youth Comparative Report* extracts, summarizes and compares data from the national reports developed for Ireland, Norway, Poland and Romania, by the *Skill IT for Youth* partners: Youth Work Ireland (Ireland), Camara Education (Ireland), Norsensus Mediaforum (Norway), Fundacja Robinson Crusoe (Poland) and Fundatia Danis pentru Dezvoltare Manageriala (Romania).

This comparative report and also the *Skill IT for Youth* national reports bring new perspectives for the further enhancement of youth work. First, the research maps the existing digital skills education programs in the partner countries, bringing new focus onto the youth work sector; second, it looks to the needs of youth workers to develop high quality projects for young people in this area - how to equip them to support young people in developing the required skills, mainly digital skills; finally, it connects the requirements of employers towards young employees' skill set, to the potential of the youth work sector to contribute to the acquisition of the relevant skills by its beneficiaries.

The comparative report, first, serves the partner organizations in the process of developing meaningful tools for youth organizations and youth workers interested in improving their services for young people. Thus, the research results supports the development of a Competence Framework for Digital Youth Work Practice, A Strategic Guide for Senior Managers & Leaders to embed digital technology into their organizations, a Training Toolkit to enable youth workers to deliver digital skills enhancement workshops, and finally DigiPol - policy briefs addressing the importance and significance of digital and future skills to the employability of young people and emphasising the role and value of youth work in the delivery of these skills and competencies. The comparative report also serves any other European organization, institution, enterprise interested in increasing the quality of youth work through

digitization, in enhancing young people's 21st century skills, in developing work opportunities for young people, interested in further developing *Skill IT for Youth* research or similar European projects, or finally interested in using the research results for improving the cross-sector partnerships and public-private partnerships in the field of digital skills and future skills for young people.

Research methods

For the first part of the research, *Skill IT for Youth* partners have conducted national desk research with the purpose of finding and analyzing the available research, studies and reports that focus on the digital skills of young people, with an emphasis on what digital skills they lack, or provide frameworks/lists of digital competencies that young people need for the 21st century labor market. The desk research stage was helpful in evaluating the following aspects (1) the employability skills of young people, (2) the types of formal and non-formal education programs for developing young people's digital skills, (3) the youth workers' digital skills and (4) youth organizations' capacity for developing digital skills of young people. The final reviews also helped us in identifying the informational gaps in these four areas.

For the second part of the research, four qualitative research tools were developed and used in conducting focus groups and interviews with different types of stakeholders. To facilitate the understanding of the concept of "digital skills", all research tools included a common conceptual framework - Framework for 21st Century Skills (Partnership for 21st Century Skills, 2002) (Annex 1).

Twelve employers from Ireland, Norway, Poland and Romania were interviewed and information about the employers' needs and expectations regarding young people's digital and future skills was collected. The interviews with the employers also focused on their expectations towards youth organizations and youth workers' contribution in the area of digital skills and in the process of preparing young people for the future jobs.

The main purpose of the second type of interviews or focus groups was to collect information about the senior managers' perspective about the digital skills needs of the youth workers and the readiness degree to use certain ICTs in their organizations/develop certain digital competencies in youth workers. Besides that, the interviews with the senior managers gathered information about the types of programs and services that are currently developed or could be developed by NGOs to increase young people's digital skills. In total, 39 senior managers and leaders from youth organizations from the partner countries supported our research and talked about their organizations.

Focus groups with youth workers were also conducted to collect data about the needs of youth workers in terms of the knowledge, competencies and skills required to provide meaningful and sustainable programs and services that develop young people's digital skills, and about the needs of youth workers to grow their own digital skills and through that, the capacity to offer high quality and innovative youth services. 105 youth workers from organizations from Ireland, Norway, Poland and Romania participated in this study.

Finally, focus groups were also organized with young people with the purpose of collecting information about the young people's perspective on the digital skills and future skills they need to enhance their employability; but also about their perspective on the role of the youth sector in enhancing youth digital and future skills. 116 young people from Ireland, Norway, Poland and Romania were directly involved in the *Skill IT for Youth* study, providing their valuable inputs for the further development of the *Skill IT for Youth* open educational resources.

The young people, youth organizations - youth workers and senior managers/leaders, and employers included in the field research were selected using the stakeholder networks of the *Skill IT for Youth* partners, thus a convenience sampling method was used. We chose this sampling method, as the main goal of the research was to respond to the project partners and their stakeholders' needs and interests in regards to the topics of digital youth work and development and work opportunities for young people.

GAPS IN LITERATURE FROM *SKILL IT FOR YOUTH* PARTNER COUNTRIES

When the *Skill IT for Youth* partners initiated the project, they have already identified some gaps in research referring to young people's digital and work skills and the support the education systems or youth sectors from Ireland, Norway, Poland and Romania give in the development of young people's digital skills. Actually, the work on *Skill IT for Youth* research was motivated by the lack of resources (reports and studies, national or European) on topics such as youth sector capacity to support the development of the young people's employability and digital skills, youth workers' capacity and digital skills, digital readiness of youth organizations, and young people's digital skills and employability skills levels and gaps in competencies they have in order to respond to the labor market's demands. The thorough literature reviews conducted by the *Skill IT for Youth* partners, within the project framework, confirmed the initial findings, identifying significant gaps in the information available at national level on these topics.

Through the literature review process we searched for reports or studies presenting the national situation from Ireland, Norway, Poland and Romania regarding the employability skills of the young people from these countries. We were interested to find out information on the current level of skills/competencies young people possess, but also on the competencies required by the national labor markets from young people. We also searched for studies that evaluated young people's digital skills, presenting the current level of these skills, and that looked to the employers' expectations and needs related to the digital skills of young people. The gathered information is presented in the *Skill IT for Youth* national reports. In Romania and Poland, except the Eurostat information on the level of digital skills of country population, including young people, there are few studies that look to these topics - only a couple of them per country, which take the employers' perspective and focus on the employers' expectations regarding employability and digital skills of young people. In Ireland and Norway, there are state statistics and more data is available regarding the digital skills of young people and the needed employability skills, in addition to new country plans and strategies to support young people to develop the right skills for their professional future.

Skill IT for Youth partners also mapped the formal and non-formal education systems for developing young people's digital skills. In all the countries, information was found and collected about the formal education programs and services provided to young people for developing digital skills. However, in all the partner countries, there is a huge lack of information on the programs, services, activities provided by non-formal education

entities in order to develop young people's digital skills. Partners were able only to identify some success cases of NGOs/youth organizations that work in the field of digital skills/media and information literacy. The partners could not identify any systematic national report or any state of the art on the availability of the non-formal programs and services for enhancing digital skills of young people.

We also searched for previous research, reports, studies analyzing the youth work sectors from the partner countries, regarding their capacity to enhance young people's digital skills. First, we searched for information on the youth workers' capacity to provide such support for young people, and then we also looked for studies that focus on the e-readiness of the youth organizations or NGOs working with young people. Ireland was the only country that identified some incipient research and reports on the youth workers' digital skills, while there was found no relevant information on this topic in the other three countries. Also, no studies or reports, which could present existing training programs for developing digital skills of youth workers or which could assess youth organizations' needs and expectations towards the youth workers' digital skills, were identified. Finally, the partners were able to follow only individual cases of NGOs/youth organizations in order to describe some examples of programs and services the youth organizations provide for developing, directly or indirectly, the young people's digital skills. However, no relevant national reports or studies could be found in order to get a full picture of the youth sectors' infrastructure, resources or degree of digitization that NGOs/youth organizations have or need in order to develop the young people's digital skills or the youth workers' digital skills.

In conclusion, from the perspective of the *Skill IT for Youth* research aim, relevant information was missed by the previous reports and studies regarding young people's digital and work skills and the support the education system or youth sector give in the development of young people's digital skills, on specific topics, such as:
- Employability skills of young people (current level of competencies/skills and those needed to enhance their employability);
- Non-formal education programs and services for developing young people's digital skills (programs' general target groups, competencies acquired/aimed, qualifications obtained, types of programs and services providers);
- Assessment/evaluation of the digital skills of youth workers (current level of competencies/skills and those needed/required);
- Existing training programs (formal or non-formal) for developing digital skills of youth workers;
- Youth organizations' needs and expectations towards the youth workers' digital skills;
- Programs and services the youth organizations provide for developing, directly or

indirectly, the young people's digital skills;
- Infrastructure and resources (including human resources) the organizations have or they might need to develop the young people's digital skills or the youth workers' digital skills;
- Degree of digitization and digital readiness of NGOs (aspects related to digitization, in general, and digital skills, in particular, included in the strategy/mission of the NGOs).

Through the field research conducted within the *Skill IT for Youth* project framework, we investigated some of these topics, and the comparative results will be presented further in this report, presenting the main research results obtained from relevant stakeholders: young people, youth workers, youth organizations leaders or senior managers and employers.

REPORT ON FOCUS GROUPS WITH YOUNG PEOPLE

Following *Skill IT for Youth* research design, the partners organized focus groups with 116 young people from Ireland, Norway, Poland and Romania. The main purpose of the focus groups was to collect information about the young people's perspective on the digital skills they need to enhance their employability. We also talk with young people about the work skills they think they need and how they assess the level of these skills, and also about the ways they use to develop their digital skills and previous experience they had with youth organizations/NGOs regarding digital skills development programs or activities.

Profile of the focus groups participants

The young people included in the *Skill IT for Youth* research are stakeholders of the partner organizations - young people engaged in current youth services provided by the partners or young people engaged in the activities of other youth organizations, student unions, schools or universities that are in the network of the *Skill IT for Youth* partners. In Ireland and Romania, the majority of the participants were female, while in Norway and Poland - the majority were male. With the exception of Ireland case (where participants came both from rural and urban areas), in the case of Norway, Poland and Romania, most of the participants were from urban areas. Regarding the age of the participants, *Skill IT for Youth* partners involved in focus groups young people between 13 and 27 years old, with the majority being 16 to 23 years old.

Perspectives on young people's present and future skills

In the following table, we summarized young people's opinions on the competencies they think employers expect from youth when hiring them. The table helps to have a comparative perspective on how young people from Ireland, Norway, Poland and Romania perceive the demands of the labor market:

Young people's opinions on the competencies required by employers when hiring youth			
Ireland	**Norway**	**Poland**	**Romania**
Communication & interpersonal skills	Teamwork	Foreign language	Foreign language
Good people skills	Presentation skills	**Basic computer skills**	**Basic computer skills -**

		or job-related apps, software or technology	Office tools or job-related software
Computer skills - Office tools, apps and different platforms	**Communication skills**	Self-confidence	Ability to adapt/flexibility
Good attitude	**Computer skills - Office tools & professional softwares**	**Communication skills**	Open-mindness
Coding	Online marketing skills	Responsibility	Trustworthiness
Critical thinking	Content creation & analysis skills	Commitment to work	Seriousness
Problem solving	Coding	Creativity	Resourceful to employer's objectives
Teamwork	Patience	Punctuality	Creativity
Cooperation	Self-learning	Openness/adaptability	Taking the initiative
	Social media skills	Good manners/behaviour	Commitment to work
			Communication & negotiation skills

Assessment of young people's digital skills and young people's digital skills needs

The following table provides a comparative perspective on the perception of the young people from Ireland, Norway, Poland and Romania on their own level of digital skills and ICT competencies. The summarized data also shows what competencies young people think they need to improve in order to get a better job on the market.

Young people's assessment of their level of digital skills & ICT competencies they believe they need to improve in order to better integrate in the labor market			
Ireland	**Norway**	**Poland**	**Romania**
How young people assess their current level of digital skills?			

Good level They say they have basic ICT skills, and they are good users of social media, but they do not see how they could use social media skills in a work context.	Average level, with few of them over average level	Some said they have highly developed digital skills, while others were more skeptical about their digital skills They say they are confident in using Office tools, their smartphones, or taking photos and videos on their phones. Also, they say they can manage well searching information online or spotting fake news. They are running vlogs or social media groups.	Basic or intermediate level They say they are confident in using Office tools, some of them some job-related apps (basic level) and social media. Also, they are confident in their skills in searching for information online.
ICT competences that young people believe they need to improve for better integration on the labor market			
Coding	Coding	Programming	Data visualization software
Programming	Analytical skills of the online information	Developing websites	Analytical skills of the online information
Research information online	Online communication	Using graphic design, animation or photo/film editing software	Statistical software
Online/digital presentation skills	Online/digital presentation skills	Building online security systems	Developing websites
			Using graphic design software
			Using database management software

Digital skills development and ICT use among youth

When interviewing over 100 young people from four different countries, with different economic, technological and cultural contexts, it is expected that there will be, if not a lot, then at least some differences in how young people use technology and how they develop their digital competencies. The research results show very-very few differences on both aspects.

First, when asked what kind of ICT they frequently use, the young people from all the four countries mentioned very similar apps, platforms and tools: Internet in general (in Poland it was mentioned as their main source of knowledge and communication), then Office tools, then social media channels and platforms (Facebook, Messenger, Whatsapp, Twitter, Snapchat, Instagram, Youtube, etc.), and then some phone apps for finding information, getting orientation, translating things, getting the news, managing budgets, managing calendars or dating apps, and photo and film editing apps. Now, the young people told that they use on a daily basis their PCs, but mostly smartphones, and they are aware of all these apps, but not necessarily they use all of them at the same intensity or all their features.

Second, in all the partner countries, young people say they develop their digital competences through self-learning (trial and error of the apps, software, technology, etc.), with the help of their peers or someone who knows better and can show face-to-face how to use specific app/technology, or through online free tutorials or trainings. In Poland, young people emphasize that they cannot count on the ICT education they get in school, it is not enough, up-to-date or the teacher is not enough specialized; in Ireland, some of the young people participated in workshops/activities on robotics, animation, filming, editing, basic graphic design and photography. Also, in Ireland and Norway, young people say that they learn the basics on ICT in schools, but the rest - new apps and technology - they learn out of the education system, on their own or with the help of peers or tutorials.

Young people see different advantages and benefits in using technology, their opinions are very diverse and complementary: Internet and technology help them to save time, allow them to contact so many new people from so many new places, allow them to transfer money fast, help them to be more efficient in their work and also make work less challenging, ease the communication, provide access to a lot of information, and digital skills can bring better jobs and better salaries. The disadvantages, limits or obstacles young people see in using ICT are very diverse: human estrangement, distortion of the communication habits, affects their attention span, bombards them with too much information and advertising, learning to use new tools is time consuming

and sometimes a waste of time as technology changes so fast, it can generate dependency, etc.

Young people's previous experience with the NGO sector in regards to youth workers' digital skills

Except the case of Ireland, the majority of the young people involved in the interviews and focus groups had limited contact with youth organizations and youth workers or other NGOs, or they had limited interactions with NGOs regarding digital skills development programs or activities. Thus, in Romania, Norway and Poland, the young people could not express a clear opinion on the youth services designated to enhance young people's digital skills or on the youth workers' competences to support the development of the digital skills of young people. In Norway, those few young people that interacted with NGOs for digital skills development, some of them shared that the youth workers were highly skilled, while others said that the youth workers' skills were below average. In Romania, some of the young people said that they did not observe youth workers to have any digital gaps. At the same time, some of the Romanian young people expressed the idea that the formal education system should be responsible to enhance youth digital skills, and NGOs should not be pressured with this issue, as they are already solving a lot of Romania's problems, covering many things for which the government does not take responsibility. In Poland, young people associated youth workers with regular adults that are not comfortable with using new technologies, devices or are not good in really using apps and software. Though, the majority of Polish young people were not in contact with youth workers or youth organizations.

In Ireland, the majority of the young participants to our study engaged with youth services and youth workers. They felt reluctant to be seen critical towards youth workers or services, but they did mention some areas for improvement, such as keeping up with the trends and changes from tech and becoming more comfortable in using new technology and devices. However, young people were happy with the digital communication skills of youth workers, being satisfied on how they use online communication and social media to update the young people about the services and activities they might be interested in.

Conclusions

We consider relevant to highlight five important aspects we learned from talking with young people from Ireland, Norway, Poland and Romania:
-   Young people are well aware of the employers' expectations regarding work and digital competencies;

- In all countries, young people consider that coding and programming are essential skills for future jobs, and that basic ICT skills will not be enough anymore.
- Young people perceive themselves and talk about themselves as "digital natives", and in some places they feel they cannot count on adults/older persons to learn from in this particular field, because they are not digital natives and cannot keep up with the trends and changes;
- Young people feel that they need to learn by themselves and they learn by themselves, using trial and error methods, tutorials or peers' support, and develop their digital competencies most of the time outside the formal or non-formal education systems;
- Young people do not see, for the moment, any real opportunity for developing their digital competencies with the support of youth sector; some of them do not even consider that the ICT programs should be outside the formal education system.

REPORT ON INTERVIEWS WITH EMPLOYERS

The main purpose of the interviews was to collect information about the employers' needs and expectations with regards to young people's digital skills. The interviews also focused on the expectations of the employers towards youth organizations and youth workers' contribution in the area of digital skills, in the process of preparing young people for future jobs. Following this purpose, *Skill IT for Youth* partners interviewed twelve employers from Ireland, Norway, Poland and Romania.

Profile of the interviewees

The twelve employers included in our research vary considerably in terms of the industry, size and market. The companies included are small local enterprises, national companies, large enterprises or multinational corporations. They come from the industry sectors, such as IT, communication & technology, energy, retail, business process outsourcing, marketing, business association, etc. The people interviewed are either owners or senior managers in the companies, or managers from the Human Resources departments of the enterprises. All the employers are part of the stakeholder networks of the *Skill IT for Youth* partners, being familiar with the youth work sector and the partners' activities with young people.

Perspectives on young people's present and future skills

When we asked the employers about the main skills young people should have and prove in a workplace, these specific skills emerged in at least three countries included in our studies:
- Flexibility and adaptability;
- Digital skills (basic or more advanced capacity of using computers and specific software);
- Teamwork (capacity to work in teams and valorization of the teamwork);
- Openness and orientation for learning new things or acquiring new skills and competencies.

The following table summarizes the skills, competencies or attitudes the employers mentioned during the interviews we conducted in the four countries:

Current skills young people should possess when approaching the labor market			
Ireland	**Norway**	**Poland**	**Romania**
Adaptability & flexibility	**Flexibility**	Attention to detail	**Adaptability & flexibility**
Job-specific skills & qualifications	**Digital skills**	Strong work ethic	Job-specific skills
Critical thinking	Collecting & analyzing data	Empathy & openness to people	Reliability
Teamwork	**Oriented to learning**	**Teamwork**	**Teamwork**
Collaboration & communication, interpersonal skills		**Oriented to learning**	**Oriented to learning**
Digital skills		**Digital skills**	Initiative
Reliability			
Strong work ethic			
Initiative			
Attention to detail & organized			
Positivity			
Community involvement			

As for **the future skills of the young people needed on the market**, the employers from Romania and Ireland easily associate or connect those skills to the inevitable evolution of the information and communication technology. The general perception is that young employees will gradually withdraw from manual or operational types of jobs and will get in touch with the evolved and "intelligent" technology on a permanent basis (computers, robots, machines, etc.). Hence, future generations will have to engage more in decision-making and problem solving processes, as well as be more creative, agile, more innovative and more resilient. In Norway and Poland, the employers think that young people should further develop their digital skills, being able to master the new technology, but also they should develop their communication skills and their abilities to identify reliable information, collect it and analyze it independently.

Perspective on young people's digital skills: expectations and required competencies, digital skills gaps and companies' ways of addressing them

Most of the employers do not doubt that young people, also called "digital natives", know how to use ICT tools and they are familiar with technology and digital content. The employers' expectations and requirements are more concerned about the information literacy of young people, more specifically about:

- How young people can search for information, filter content, evaluate information, shortly how they can manage the overwhelming flow of information;
- How young people use the information with purpose and how they come up with solutions;
- How young people are able to communicate their ideas, and how they can manage properly the 24/7 communication channels they have available for them, for work and for personal lives;
- How young people use technology with purpose, for their career, and not only for entertaining.

As for the digital skills the young people miss, only the employers from Poland mentioned that young people lack the basic knowledge and skills to use basic software, such as Word, Excel, Outlook or PowerPoint. The other employers agree that due to technological change career paths are no longer linear, so they are more open to recruiting young people with diverse skill-sets and supporting them to develop the required skills. Hence, most of the employers develop their own educational programs to address the gaps that the young people have when entering the companies. These educational programs include training courses, workshops, apprenticeships/internship programs, but also mentoring/one-to-one support given to young people.

Obstacles impeding digital skills development of young people

According to Eurostat, the digital skills of young people from Ireland, Poland and Romania rank very low in comparison with other EU countries. The employers from these three countries mentioned numerous factors contributing to this situation. In all three cases, failures in the formal education system to provide proper digital education, adapted to the demands of the labor market, and the lack of proper ICT infrastructure were identified as main causes of the low digital skills of young people. Also, in Ireland and Poland, parents/family education and their capacity to support young people was seen as another negative factor. In Romania, poverty was mentioned as one of the causes of all the delays from the society, including the low level of digital skills of young

people. In addition, Irish employers identified the lack of digital skills plans at national level, not enough involvement from the business sector in partnering in community programs to enhance digital skills of young people, and the need for more personal motivation of young people to learn new skills, including digital skills. In Norway, the employers saw few obstacles and these concerned mainly the personal motivation of young people: the employers observed that young people express resistance to change and to learn new tools and technology.

Standpoints on stakeholders involved in developing digital skills in youth

NGOs/youth organizations are not seen by the employers as the ones that should have the greatest responsibility in the development of the digital skills of young people. In some countries, the NGOs were mentioned only after some of their programs were prompted to the interviewees. Youth organizations/NGOs are perceived as well placed in the society to support young people to access information and to develop new skills. The employers also assign to the NGOs the role of facilitators or "auditors" of the quality and content of the programs and services offered by other actors. Or, NGOs can contribute a great deal to the development of young people's digital skills by monitoring what are the demands of the companies, on the labor market, and gaps from the formal or informal training/education of the youth. The following table shows the main stakeholders the employers mentioned as responsible or key providers of digital education for young people:

Who is or should be responsible for the development of young people's digital skills?			
Ireland	**Norway**	**Poland**	**Romania**
schools	parents/family	parents	family context
NGOs	schools	schools	schools/universities
	NGOs	employers	NGOs

Conclusions

These are the most important aspects we learned from interviewing employers from Ireland, Norway, Poland and Romania:

- The formal education system is seen as key provider of digital education in all the four countries, and as the main responsible for the current situation of low digital skills of young people from Ireland, Poland and Romania;
- NGOs/youth organizations are perceived more as complementary services that can support young people in diversifying the skills needed on the labor market;
- The work skills required from young people at the moment of entering the labor market, which were mentioned in at least three countries are: adaptability and flexibility, teamwork, oriented to learn new skills and basic/more advanced digital skills;
- Regarding the ICT skills young people should improve, the employers focus on the abilities of searching, collecting and analyzing information, and of using the information in innovative and creative ways;
- Employers have their own solutions to cover for the digital skills or other skills young people lack when they get hired, such as apprenticeship/internship programs, training courses/workshops and mentoring programs.

REPORT ON FOCUS GROUPS AND INTERVIEWS WITH YOUTH WORKERS

The main purpose of the focus groups and interviews was to collect information about the needs of youth workers in terms of the knowledge, competencies and skills required to provide meaningful and sustainable programs and services that develop young people's digital skills. We also aimed to collect information about the needs of youth workers to grow their own digital skills and through that, the capacity to offer high quality and innovative youth services. Following this purpose, *Skill IT for Youth* partners interviewed and organized focus groups with 105 youth workers from youth organizations from Ireland, Norway, Poland and Romania.

Profile of the focus groups participants

The youth workers who participated in the focus groups and interviews organized by *Skill IT for Youth* partners have sound experience in working with young people in well established NGOs from Ireland, Norway, Poland and Romania. The organizations are part of the partners' national networks of nongovernmental organizations working with very diverse groups of young people from urban, but also rural areas. The interviewees work as youth workers, or as educators, psychologists, pedagogists, mentors, counsellors, and other professionals working with young people in the NGO sector. In Norway, Poland and Romania the youth worker occupation is not well-established, and professionals working with young people, like the one we mentioned above, are recognized as youth workers, although they are not hired as youth workers per se.

Perspectives on young people's present and future skills

The 105 youth workers participating in *Skill It for Youth* research agreed on the following skills that young people should have or develop in order to enter the labor market: teamwork (it was the only skill mentioned in all four countries), resilience, creativity and communication skills. In regards to the skills young people will need for the future labor market, almost all youth workers considered advanced digital skills as essential for young people to develop. The following table summarizes the main skills, competencies and attitudes that youth workers mentioned as needed by young people for now or for the future labor market.

Current skills young people should possess when approaching the labor market			
Ireland	**Norway**	**Poland**	**Romania**
Digital skills	**Creativity**	Professional knowledge	Adaptability & flexibility
Communication & interpersonal skills	Time management	Foreign language skills	**Teamwork**
Critical thinking	Social skills	**Creativity**	Proactivity
Problem solving	Problem solving	**Teamwork**	**Creativity**
Teamwork	Work ethic	**Communication skills**	**Perseverance/ resilience**
Resilience	**Teamwork**	Self-presentation, self-confidence, self-esteem, self-awareness	Oriented to learn/curiosity
Good attitude to work	**Communication skills**	**Resilience/flexibility**	Critical thinking
		Digital skills	Empathy
Skills young people should develop for the future labor market			
Human to human-social skills	Analytical & research skills	**Advanced digital skills**	Adaptability/resilience
Advanced digital skills	Interpersonal skills	Problem solving	**Advanced digital skills**
Specialisation	Problem solving		Commitment to workplace/project

An interesting point of view was expressed by a youth worker who suggested that nowadays young people tend to be rule benders and this reality will demand a change in attitude from the job givers as well. So, as a new generation is coming, the employers should also need to think of new strategies to attract young people in the job positions they offer.

Assessment of young people's digital skills and factors impeding digital skills acquirement

Although the research includes four countries with different social and economic context, the perspective of the 105 youth workers are very similar when they express

their assessment of young people's digital skills. According to youth workers' experience, the young people are very active in using social media, and they also have basic knowledge and skills in searching on the Internet and in using Microsoft office tools. However, the youth workers say that young people see digital tools more like entertaining tools, and they struggle to use ICT for solving daily life problems or for professional or educational purposes. Also, the youth workers observed that young people have little knowledge on security and privacy issues on the Internet and they are not familiar with digital etiquette. They also need more skills in critical thinking and analyzing information, but also in coding and programming. The lack of proper access to technology infrastructure, especially in rural areas from countries such as Ireland, Poland and Romania, the lack of proper school education or coming from families, and the lack of relevant public policies are among the main factors mentioned by the youth workers as causing the unsatisfactory level of young people's digital skills.

NGOs' and youth workers' role in developing digital skills in young people

The role of NGOs and youth workers in developing digital skills in young people is perceived differently in each of the countries included in the research. We summarize these perceptions in the following table:

Country	NGOs' and youth workers' role in developing digital skills in young people
Ireland	NGOs are extremely well placed to lead the work of developing young people's digital skills. However, a significant cultural shift would be necessary. Embedding a culture of digital skills in youth work organizations could be done by including it in the organizational mission statement.
Norway	NGOs are a great environment for young people to test their digital skills and knowledge in real life and get some work experience. NGOs can also fill the gap between the education system and the job market: job market changes faster than the school curriculum can be updated, while the youth organizations can adapt faster to the new demands from the market towards young people's digital skills.
Poland	NGOs could educate parents, carers, educators to be able to support young people in developing their digital skills. Youth workers could as well support young people to develop certain digital skills, but the learning process could be mutual - youth workers also learning from young people about new social media channels, new platforms, new technology that are interesting for youth.
Romania	To some extent almost all youth organizations contribute to the digital skills development of their clients, because every aspect of their work is somehow related

	to the ICT. However, the NGO sector should not be held accountable or responsible for the digitization of the future generations, unless this kind of endeavor is specifically included in the mission of an organization.

Most of the youth workers rate their digital skills rather high, but on specific topics, such as social media or new technology they feel behind. They consider they need more training and upskilling if they will be involved in digital education programs for young people.

Youth workers are aware of their role in digitizing the future generation and seem to be open to the idea of sketching and delivering in the future more programs and services aiming to develop young people's digital skills. If necessary resources can be allocated to these programs, they envision specific digital education programs that are demanded by the labor market, and are not provided already by the formal education system. Also, they think that interactive workshops should be delivered to young people in order to help them to acquire more advanced digital skills, but also on topics such as, digital management skills, digital etiquette, security and privacy on the Internet. Moreover, some of the youth workers believe that there should also be programs/workshops with youth workers and young people, learning from each other or learning together how to use specific technology, social media platforms, specific software/apps, etc.

Conclusions

The interviews and focus groups with the youth workers from Ireland, Norway, Poland and Romania helped us to learn the following aspects:
- The youth workers consider that the main skills the young people from the four countries should acquire in order to get faster integrated on the job market are: teamwork, resilience, creativity and communication skills;
- According to youth workers, young people still perceive digital tools more like entertaining tools, and they struggle to use ICT for solving daily life problems or for professional or educational purposes;
- Youth workers are aware they play a role in digitizing the future generation and seem to be open to the idea of sketching and delivering in the future more programs and services aiming to develop young people's digital skills. However, they think they will need more training and upskilling, and that their organizations should change and embrace the digital skills development as a key part of their services, organizational culture and the organization's mission;
- Youth workers see the NGOs more like facilitators or actors that provide complementary services to the digital education programs that the public education system should provide/provides to young people. NGOs could deliver

services that are not out there yet in the public system, and which could fill the gap between the formal education system's learning outcomes and the labor market's demands.

REPORT ON INTERVIEWS AND FOCUS GROUPS WITH SENIOR MANAGERS OF YOUTH SERVICES

The main purpose of the focus groups and interviews was to collect information about the senior managers' perspective about the digital skills needs of the youth workers and the readiness degree to use certain ICTs in their organization/develop certain digital competencies in youth workers. Besides that, the focus groups and interviews collected information about the types of programs and services that are currently developed or could be developed by NGOs to increase young people's digital skills. Following this purpose, *Skill IT for Youth* partners interviewed and organized focus groups with 39 senior managers from youth organizations.

Profile of the focus groups and interviews participants

The 39 interviewees are leaders or senior managers in youth organizations or NGOs working with young people that are part of the *Skill IT for Youth* partners' networks from Ireland, Norway, Poland and Romania. The organizations they represent vary in terms of size, type and location: we included small, medium or large-national youth organizations, located in rural areas, towns or big cities; from youth membership organizations (such as student unions, all volunteer-based organizations, civic organizations, etc.) to regional youth services, and national NGOs working directly with young people. The 39 interviewees are members of the boards of directors, presidents of organizations, CEOs/executive directors, coordinators of organizations' programs and services, or service managers.

Perspectives on young people's present and future skills

Senior managers and leaders from the youth organizations mentioned very diverse skills that young people need to enter the labor market in their countries, as it can be observed in the below summary table. However, communication skills and the ability to work in teams (sometimes in very diverse teams) are the competencies that were mentioned in at least three countries by our interviewees. Regarding the skills that the young people will need in the future job market challenged by technological advancement, the adaptability and flexibility were the skills that senior managers considered the young people will need in order to be able to respond to any new demand or change will be out there. They should be able to adapt fast and learn new things, like new digital tools/new technology, and change their occupations as needed.

Current skills young people should possess when approaching the labor market			
Ireland	**Norway**	**Poland**	**Romania**
Flexibility & adaptability	Oriented to learn new skills	Advanced digital skills & social media mastery	Flexibility & adaptability
Teamwork in very diverse teams	Digital skills	Critical thinking	**Communication skills**
Self-presentation	Analytical skills	Self-awareness	**Teamwork**
Time management	Searching for data	**Communication skills & assertiveness**	Time management
Organizational culture adaptable	Social skills	Problem solving	Work ethic
Good work attitude	**Communication skills**		Active listening
Interpersonal skills	**Teamwork**		Empathy
	Foreign languages		
Skills young people should develop for the future labor market			
Communication skills	**Adaptability**	Critical thinking	Creativity
Self-confidence, able to deal with change	Ability to learn new digital tools	Communication skills	Initiative
Critical thinking		Self-awareness	Self-awareness
Adaptability to the changes due to the technological advancement		Advanced digital skills	Advanced digital skills
Analytical skills			**Adaptability & flexibility**
Resilience			
Teamwork			

Assessment of young people's digital skills

Regarding young people's digital skills, the opinions of our respondents split in two stories: the story of the senior managers from Norway, and the story of the senior

managers from Ireland, Poland and Romania. The senior managers from Norway consider that young people already have the required digital skills for the work they are doing and is being demanded by the employers. The senior managers from Ireland, Poland and Romania consider that the young people from their countries have basic digital skills (they know how to operate computers, and smartphones), they are quite familiar with social media for entertainment purposes, and they use technology like consumer gadgets. However, senior managers say they see little evidence of young people's digital skills towards the application of ICT in life, school or through career planning.

In terms of what young people should improve and what digital education programs should focus on, all senior managers from all four countries saw the needs for skills in critically and competently understanding, processing and analyzing information, and in fully recognizing the ethical and the legal implications of using ICTs. Why the young people still lack such skills, especially in Ireland, Poland and Romania? Here are some of the reasons mentioned by the senior managers:
- Lack of national policies and strategies regarding the development of young people's digital skills;
- Lack of proper ICT infrastructure in schools, mainly in the rural areas;
- Lack of appropriate curriculum, teaching methods and trained teachers in the education system;
- Lack of funds to invest in formal and non-formal education systems to support young people to develop relevant digital skills;
- Lack of parents' understanding of what is and why digital literacy is important, and lack of their support in the education process;
- The inability of some young people to transfer their digital skills to life, school and work related issues, even though they have the necessary skills.

NGOs' role in developing youth's digital skills and existing programs and services aiming to develop young people's digital skills

In Ireland, Poland and Romania, senior managers easily identified services that the NGOs already provide to young people and which contribute to the development of their digital skills:
- Programs and services that include a digital dimension, either directly or indirectly;
- Accredited vocational training courses;
- Youth information services;
- Provide ICT infrastructure to young people or to schools.

In Norway, one of the most interesting findings was that almost all the senior managers considered that the NGOs actually do not have a big role in this area at the moment and that it actually is the young people who bring digital skills in the organizations.

Regarding the overall role the NGOs should play developing the digital skills of young people in their countries, the perceptions vary in the four countries as follows:

Country	NGOs' and youth workers' role in developing digital skills in young people
Ireland	The NGOs have the capacity to provide spaces for young people to experiment in fun environments, meeting them on their own terms (voluntary participation) compared to formal education. By developing new, innovative and engaging programs and services, and facilities to support this youth work can be leaders in developing digital skills in young people.
Norway	When it comes to addressing the gaps in digital skills, most of the NGOs see that as an additional activity that they do not have the resources for, as the NGOs already are quite busy with their main activities.
Poland	NGOs have expert knowledge, they are familiar with the needs, benefit from innovation in the sector and are driven by passion. However, NGOs can complement and point out trends, but they cannot replace the education system and they cannot train everyone.
Romania	NGOs can be part of the solution for the problem, but they should not be regarded as the only entities who could or, worse, should "fix" the issue of the Romanian un-digitized youth. NGOs could intervene in teaching educators new methods and tools for developing the right digital skills of young people, and they might also contribute with ICT equipment for schools, by bringing in sponsorships from technology companies. NGOs can play the roles of mediators among families, schools and youth people, and can validate or refine the skills that young people acquire elsewhere.

Assessment of youth workers' digital skills and NGOs' digital competencies needs

According to the senior managers interviewed by the *Skill IT for Youth* partners, most of the youth workers have average or advanced digital skills, strong enough to accomplish their work. However, they agree more training will be needed if the youth workers get more responsibilities in developing the young people's digital skills. At the moment, none of the organizations we interviewed has a strategy for training their youth workers regularly in the ICT field. The senior managers answers are summarized in the table below, for each country:

Country	Youth workers' level of digital skills, as assessed by senior managers	Training/educational programs offered by the organizations to support youth workers to develop their digital literacy
Ireland	Strong ICT literacy, except in the area of social media	Training tends to be offered in other areas, such as entrepreneurship, child protection, LGBT, etc.
Norway	Average in digital skills	Most of the NGOs do not have any programs or plans to introduce programs for training their youth workers
Poland	Advanced in digital skills	No special strategy, they follow trends and remain ready for new challenges
Romania	Basic digital skills: possess the digital skills that allow them to accomplish their tasks at work	When needs are identified, trainings are provided by the members of the same organization or by expert guests

NGOs' digital readiness

The majority of the senior managers from all four countries said they do not have a digital strategy for the organization or a vision to develop one, even though they recognize the increasing relevance of ICT in their work. However, there are some organizations from Ireland and Norway which have already a digital strategy or plan to develop one or include it in the next organizational strategy.

When asked about the ICT tools their organizations use, most senior managers mentioned Microsoft Office suite, file sharing system or teamwork platforms (GSuite, Dropbox), content management systems (Wordpress), Adobe Suite/Graphic programs, online communication tools and platforms (Emails, Skype for Business, Whatsapp, Hangouts), social media channels (Facebook, Youtube), productivity tools (Trello, Slack, Google Drive, etc.), educational tools (Kahoot, Mentimeter, etc.), CRM tools, packages for accounting, etc.

All the organizations would like to improve their "relationship" with technology, and some of them have concrete plans, while others only hopes that they could find resources for improving their organization, work and programs with the use of ICT. Thus, their plans include, but are not limited to:
- Acquire new technology/hardware (computers, printers, cameras, etc.);
- Improve Internet broadband;

- Make the workplace paperless;
- Increase their productivity and efficiency and improve their teamwork by using new apps/software;
- Improve their data management and information systems, and security and privacy systems;
- Enhance their online promotion;
- Improve their donor management, etc.

Conclusions

Summarizing the information we gathered by interviewing the senior managers from Ireland, Norway, Poland and Romania, here are the most important aspects we learned in the process:
- Except the senior managers from Norway, all the other senior managers consider that NGO sector plays or could play a significant role in developing young people's digital skills;
- Senior managers see the relevance of ICT for their organizations, but still they do not have a digital strategy or a plan to develop one;
- Youth workers have the digital skills necessary to perform the current tasks and activities they have in the organizations, but they might need more training in order to be able to enhance young people's digital skills;
- Senior managers think that ICT could improve their organizations and services, and they would like to acquire new hardware, software, apps, but also to adopt these in the organizational work culture.

CONCLUSIONS

This comparative report and also the *Skill IT for Youth* national reports bring new perspectives for the further enhancement of youth work. First, the research mapped the existing digital skills education programs in the partner countries, bringing new focus onto the youth work sector; second, it looked to the needs of youth workers to develop high quality projects for young people in this area - how to equip them to support young people in developing the required skills, mainly digital skills; finally, it connected the requirements of employers towards young employees' skill set, to the potential of the youth work sector to contribute to the acquisition of the relevant skills by its beneficiaries.

The comparative report, first, serves the partner organizations in the process of developing meaningful tools for youth organizations and youth workers interested in improving their services for young people. From this perspective the research results presented in the previous chapters inform the development of a Competence Framework for Digital Youth Work Practice, A Strategic Guide for Senior Managers & Leaders to embed digital technology into their organizations, a Training Toolkit to enable youth workers to deliver digital skills enhancement workshops, and finally DigiPol - policy briefs addressing the importance and significance of digital and future skills to the employability of young people and emphasising the role and value of youth work in the delivery of these skills and competencies. Here are the most important conclusions we drew from the research results of the comparative report:

The perspectives on **the skills young people need to enter the labor market** are very diverse from country to country and from one stakeholder group to another. In the following table we summarize the main skills mentioned in at least three countries by the stakeholders we approached during our research:

Current skills young people should possess when approaching the labor market			
Young people	**Employers**	**Youth workers**	**Senior managers**
Communication skills	Adaptability & flexibility	Creativity	Teamwork
Digital skills	Digital skills	Communication skills	Communication skills
	Teamwork	Teamwork	
	Oriented to learning	Resilience	

When assessing **the digital skills of young people**, while young people perceive themselves as average users, the other stakeholders assess their skills as basic for what is needed on the labor market. At the same time, young people consider they need to improve their coding and programming competencies, while the other stakeholders think that young people should improve mainly their information literacy, learn how to access, evaluate, use and manage information.

Young people's digital skills assessed by the research participants			
Young people	**Employers**	**Youth workers**	**Senior managers**
Average digital skills	Basics or average digital skills	Basic computer skills, advanced social media skills	Basic digital skills (Ireland, Poland & Romania) Average digital skills (Norway)
Information, media and technology skills young people need to improve			
Young people	**Employers**	**Youth workers**	**Senior managers**
Coding & programming	Access, evaluate, use and manage information	Access, evaluate, use and manage information	Access, evaluate, use and manage information
	Use information and technology with purpose	Use ICT with purpose	Use ICT legally and ethically
		Coding & programming	

In all the partner countries, young people say they develop their digital competences through self-learning (trial and error of the apps, software, technology, etc.), with the help of their peers or someone who knows better and can show face-to-face how to use specific app/technology, or through online free tutorials or trainings.

Regarding the role of the youth sector in developing the youth digital skills, young people do not see, for the moment, any real opportunity for developing their digital competencies with the support of youth sector; some of them do not even consider that the ICT programs should be outside the formal education system. Also, employers do not see NGOs/youth organizations as the ones that should have the greatest responsibility in the development of the digital skills of young people. Youth organizations/NGOs are perceived as well placed in the society to support young people to access information and to develop new skills.The employers also assign to the NGOs

the role of facilitators or "auditors" of the quality and content of the programs and services offered by other actors. Or, NGOs can contribute a great deal to the development of young people's digital skills by monitoring what are the demands of the companies, on the labor market, and gaps from the formal or informal training/education of the youth.

Youth workers see the NGOs more like facilitators or actors that provide complementary services to the digital education programs that the public education system should provide/provides to young people. NGOs could deliver services that are not out there yet in the public system, and which could fill the gap between the formal education system's learning outcomes and the labor market's demands. Youth workers' opinions are shared by the senior managers from youth organizations. Except the senior managers from Norway, all the other senior managers consider that NGO sector plays or could play a significant role in developing young people's digital skills.

In order for the youth sector to enhance its role in developing the young people's digital skills, NGOs should better define their role in the field of digital literacy, role that can then be better perceived by the other stakeholders. For doing that, as senior managers concluded, the NGOs should also improve their digital readiness, develop their digital strategies, but also support their youth workers to gain the needed skills for delivering digital education programs.

APPENDIX 1 - INFORMATION, MEDIA AND TECHNOLOGY SKILLS (P21 FRAMEWORK)

INFORMATION LITERACY	MEDIA LITERACY	ICT LITERACY
Access and Evaluate Information Access information efficiently (time) and effectively (sources) Evaluate information critically and competently **Use and Manage Information** Use information accurately and creatively for the issue or problem at hand Manage the flow of information from a wide variety of sources Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information	**Analyze Media** Understand both how and why media messages are constructed, and for what purposes Examine how individuals interpret messages differently, how values and points of view are included or excluded, and how media can influence beliefs and behaviors Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of media **Create Media Products** Understand and utilize the most appropriate media creation tools, characteristics and conventions Understand and effectively utilize the most appropriate expressions and interpretations in diverse, multi-cultural environments	**Apply Technology Effectively** Use technology as a tool to research, organize, evaluate and communicate information Use digital technologies (computers, PDAs, media players, GPS, etc.), communication or networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of information technologies