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(RESEARCH ARTICLE)

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JOBS4ALL: Strengthening the employability and basic skills of young people with disabilities through digital transformation and the modernization of youth work

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Abstract

The independence of the members of a society is shaped, to a critical extent, by the structures and conditions that it provides for equal treatment and the opposite "effort" of citizens for their rights. However, the group of people with special needs in the integration into work, education, and socialization, is not a given and society must ensure the principles of equality and solidarity. The explosion of technological progress, the development of emerging technologies, cutting-edge technologies, and digital transformation enhances their employability and basic skills in the modernization of their work so that they can claim the right to work and well-being! In this paper, the role of technologies in the employed presence of people with disabilities is examined, documenting it through the work Erasmus +: ASSIGNMENTS 4 ALL.

Keywords: Youth; Employability; Disabilities; New Technologies; Work 4 All

1. Introduction

The labor market is evolving rapidly, influenced by technological developments and digital transformation. However, young people with disabilities still face significant barriers to their professional integration, despite the opportunities offered by new technologies. Digital transformation can act as a lever to enhance their employability, facilitating their access to education, training, and the labor market.

The importance of equal professional integration of young people with disabilities is recognized both nationally and internationally, with the European Union promoting strategies to eliminate inequalities. However, challenges remain, such as lack of accessibility, lack of specialized training programs, and prejudices in the workplace. This article analyzes the role of digital transformation in enhancing the employability of young people with disabilities, presenting both the challenges and the businesses that arise.

The Treaty on the Functioning of the EU and the aforementioned United Nations Convention promote the human rights and fundamental freedoms of persons with disabilities, establish legislative measures for individuals, and define actions to combat discrimination on the grounds of disability. A single European policy is therefore created, which is also followed by national legislation for the promotion of the rights of persons with disabilities and their social inclusion.

With the open method of coordination, the EU has a non-binding cooperation framework, to guide their national policies in areas such as employment, social protection, education, and vocational training. The Lisbon Strategy, which organizes the "Education and Training 2010" program, was also based on the open method of coordination. In the current decade,

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it has been implemented in the Euro2020 program, with the main objectives of implementing lifelong learning, improving the quality of education, promoting equality, social cohesion, and active participation in civic life, as well as strengthening innovation and creativity.

More precisely, by implementing creative educational, training, and employment initiatives, the Euro2020 strategy aims to combat discrimination and advance an inclusive development policy. The following is a summary of Euro2020's goals for individuals with disabilities: employment, education and training, social protection, health, accessibility, participation, equality, and external action. Efforts are made to enhance the business environment, create jobs, and increase the skills of individuals with disabilities, specifically with regard to their employment [1].

The UN protects the rights of people with disabilities everywhere through the Convention on the Rights of Persons with Disabilities and the Optional Protocol. Article 24 specifically ensures that human potential is fully realized and that respect for human variety and fundamental rights is strengthened. The parties to the contract are required to make every effort to ensure that people with disabilities can participate in the educational process without any obstacles [2].

Lastly, Article 27 guarantees equitable employment opportunities, professional growth, and fair and comfortable working circumstances for people with disabilities. This includes the right to earn a living through employment that is freely selected or accepted in a labor market and workplace that is accessible, inclusive, and open to people with disabilities.

Article 27 of the International Convention on the Rights of Persons with Disabilities (2006) states that among other things, people with disabilities have the inalienable right to work, which includes the right to work in an environment that is accessible, inclusive, and open to all. They also have the right to earn a living through employment that they freely choose or that is acceptable in a market for people [3].

At the same time, UNESCO, [4] through the SDG 4 program (SDG: Sustainable Development Goals) attempts to promote quality and lifelong education, which must cover logistical requirements and infrastructure, while at the same time not being provided without restriction.

To achieve these goals, the following are proposed:

- Training programs are continuously provided to people with disabilities.
- Identification of knowledge and skills, whether they come from formal or informal structures.
- Access to advanced forms of vocational education and training.
- Equal participation of people with disabilities in education and vocational training.

Self-employment opportunities and support for maintaining employment on equal terms. Terms with others [4].

Significant advancements in ICT and assistive technology have increased the employment rate of working-age individuals with impairments. Technology Accessible and information-enabled aches are those that can be utilized by individuals with a range of skills and limitations. This includes the general design concepts. Every user is free to interact with the technology that works best for them. Accessible technology is either directly accessible, meaning it can be used without standard assistive technology, or it is compatible with it. Products that adhere to accessible design principles can be used by people with a range of skills and disabilities. For example, buildings with ramps and elevators can be used by wheelchair users.[5]

2. Disability and work

Despite the declarations on the rights of this population group, it is observed that the possibilities for employment and economic independence of disabled people are minimal. The issue of quality of life and employment integration of disabled people has concerned both Greece and the international and European community. The EU and organizations have taken a series of measures, which promote the encouragement of diversity and respect for diversity. The United Nations Convention on the Rights of Persons with Disabilities has as its primary goal the inherent dignity and autonomy of individuals. In this context, therefore, disabled people must have access to better living conditions and a guarantee of their independence and social and professional participation.

2.1. Basics data for the disability

There are 100 million people with disabilities in the EU and over a billion people worldwide. By 2050, the global number is expected to increase to 2 billion [6]; [7]; [8]. People with disabilities have a much lower socioeconomic status (SES) than the general population, according to the data in Figure 1 organized by several Sustainable Development Goals (SDGs).

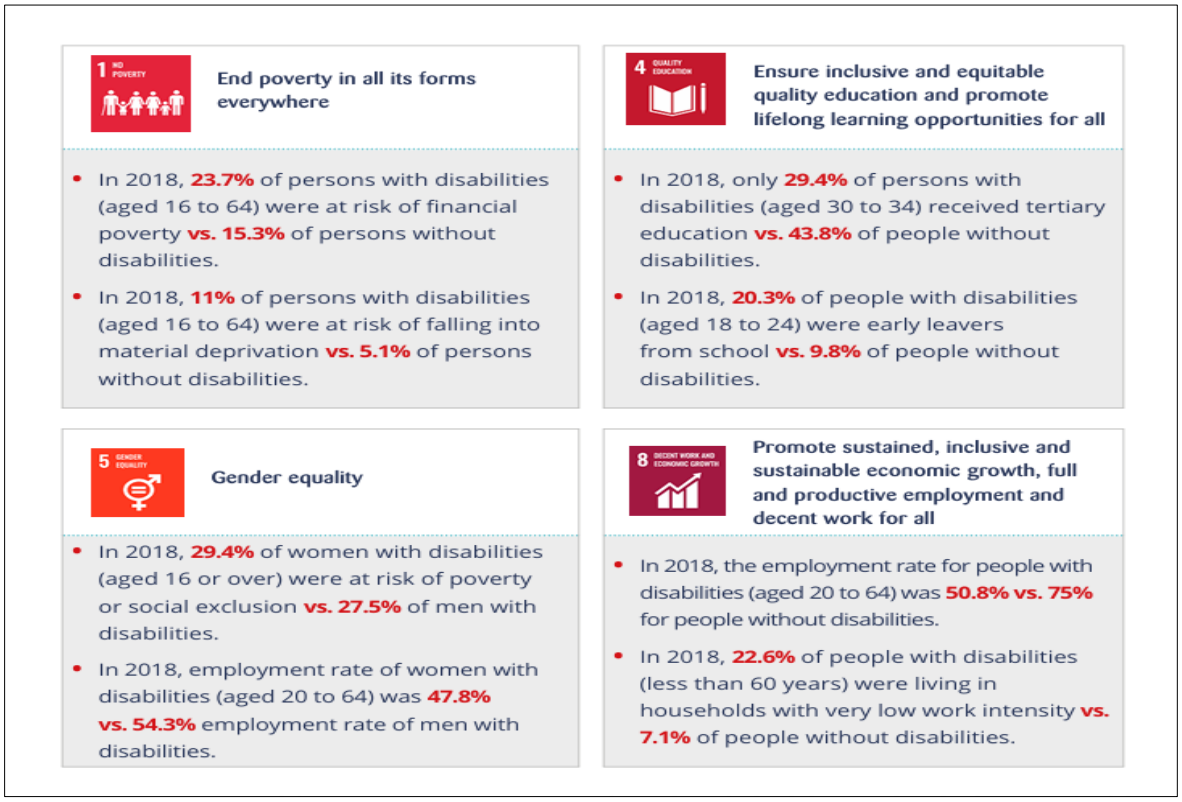

Figure 1 A summary of the socioeconomic circumstances of individuals with disabilities in relation to the 2030 Agenda and SDGs.[6]; [9], [10] Disability Hub Europe is the source. [11]

People with disabilities face numerous risks to their livelihoods during the COVID-19 pandemic for a variety of reasons, such as restricted access to healthcare, mobility limitations, and social distancing measures. These factors exacerbated pre-existing barriers for people with disabilities and created new risks and disruptions to their lives, autonomy, and health [12]. Because employers were "discouraged from hiring people with disabilities due to concerns about properly supporting them during the pandemic" [13], individuals with disabilities who were excluded from employment prior to this crisis may have lost their jobs and had a harder time getting back to work [14]. According to the first piece of specific research conducted in Spain by Fundación ONCE, within the framework of the statistical analysis carried out by ODISMET, 37% of people with disabilities surveyed have been affected by temporary layoff schemes, a much higher percentage than the estimate for the population without disabilities, and 47% consider that it will be very difficult to get a job. [15]

The notion that hiring people with disabilities could result in "lost productivity and a negative impact on corporate results" is one of the persistent misconceptions about work and disability, despite efforts and advancements toward inclusive employment of people with disabilities in businesses and organizations [16]. The World Economic Forum's research revealed that inclusive businesses averaged "28% higher revenue, double the net income, and 30% higher financial profit margins over the four years analyzed" [17].

3. Youth with disabilities

The poorest and most marginalized young people in the world, even in emerging countries, are young people with disabilities, numbering between 180 and 220 million worldwide. Approximately 80% of these young people live in low- and middle-income countries 4. Compared with young people without disabilities, young people with disabilities have poorer socio-economic outcomes, including lower employment rates, less education, and higher rates of poverty,

unemployment, underemployment, and economic inactivity. The Disability Data Review shows that young people with disabilities are 18 percentage points less literate than young people without disabilities (Figure 1).

Figure 2 Disability-specific literacy rates (at least 25 years old) Source: Disability Data Review [8] [18], [19].

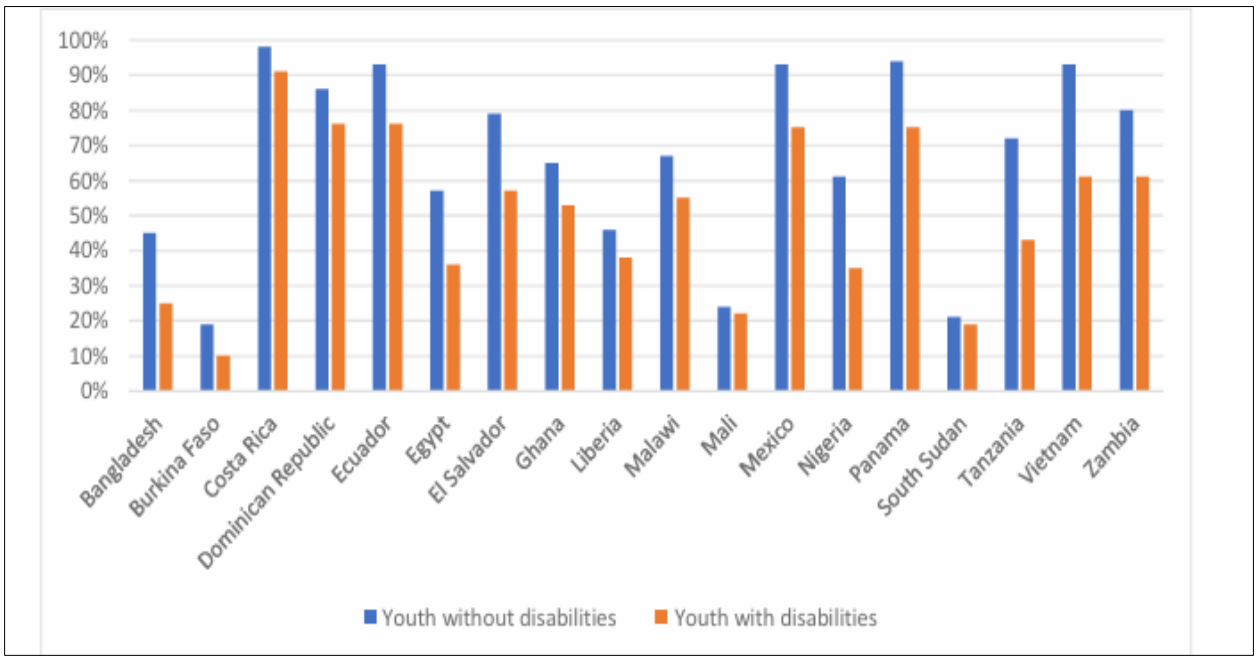

Figure 2 Disability-specific literacy rates (at least 25 years old) Source: Disability Data Review [8]; [18]; [19]

Figure 3 shows the percentage of young people not in education, employment, or training (NEET). It is important to note that there are differences between these groups of young people with and without disabilities. In Vietnam, for example, 72% of young people are not in employment, education, or training, and the gap between young people with and without disabilities is widening.

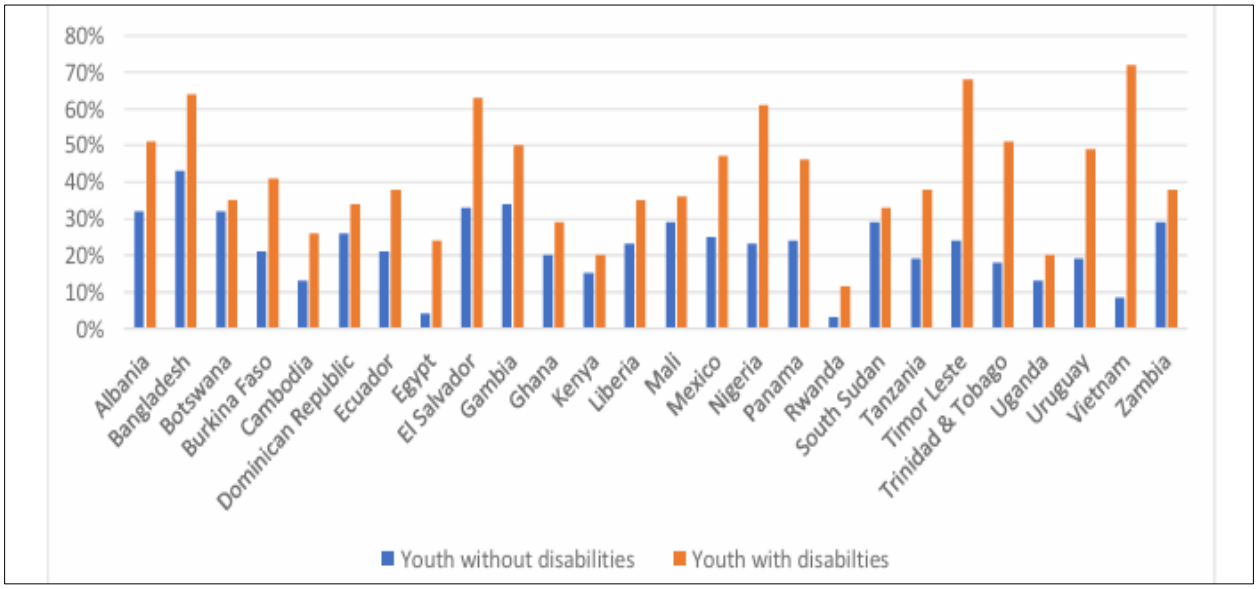

Figure 3 Percentage of young people (aged 15 to 24) without disabilities who are not enrolled in school, employment, or education Source: Disability Data Review [8]; [18]; [19]

Low rates of education, training, and employment participation of young people with disabilities lead to high unemployment rates, which average around 28% in some developing countries (Figure 4), with unemployment rates

for people with disabilities exceeding 80% in some Asia-Pacific countries. Unemployment rates for women with disabilities are higher than those for young men with disabilities (32% and 25%, respectively).[8], [20], [21], [22], [23], [24], [25] [26]

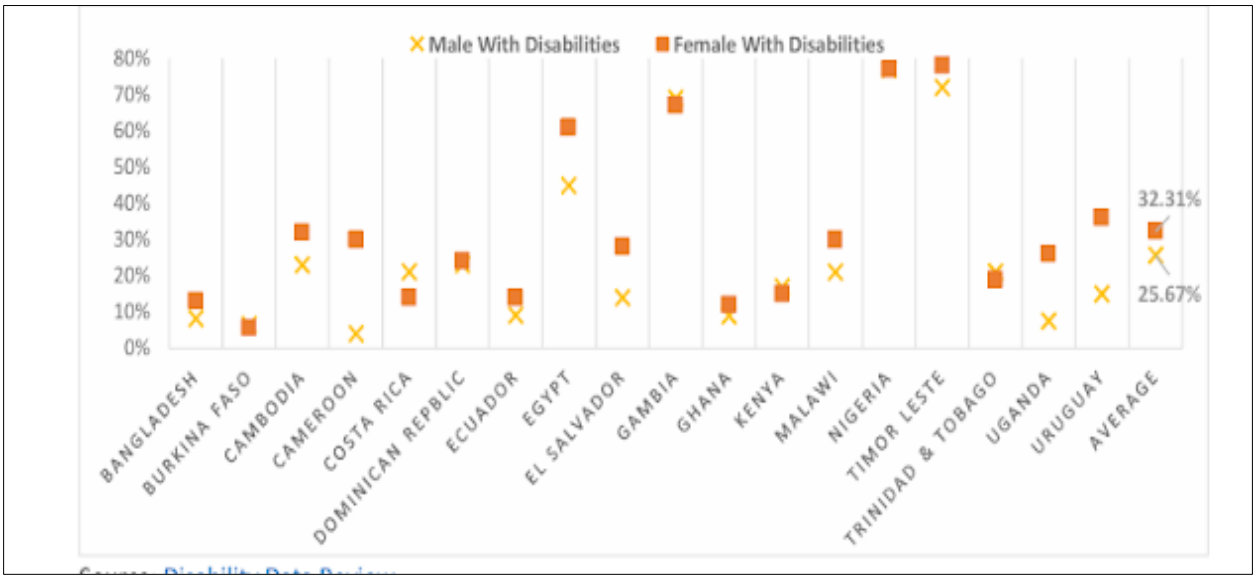

Figure 4 Unemployment rates of young people with disabilities (15–24 years old) Source: Disability Data Review [8]; [18]; [19]

4. Women, disabilities, employment

When it comes to full-time employment, the situation is even worse, especially for women with disabilities. In 11 countries, less than 20% of women with disabilities are in full-time employment. These include: Ireland, Belgium, Spain, Italy, Malta, Poland, Hungary, Croatia, Romania, Bulgaria, and Greece. This is even though women with disabilities are, on average, more educated than men with disabilities.

The gap between the employment rates of people with and without disabilities – the 'disability employment gap' – is clear and varies greatly. The EU average is 24.4 percentage points – but the differences in the worst performing Member States are much greater: Ireland 38.6, Belgium 36.3, Bulgaria 33. The lowest gap (Portugal) is still 18.2 percentage points.

The report found several reasons for this gap - including the lack of provision of reasonable accommodations, discrimination and stigma faced by people with disabilities, and lack of access to inclusive and quality education [27].

Finally, it should be noted that households with members with disabilities are more likely to earn less than other households and live below the poverty line.7 The family budget is affected because parents or other family members—mainly women—often take on caregiving duties due to the lack of financial assistance from the state for the person with a disability, which forces them to give up work or other sources of income.

According to estimates, the social and economic cost of keeping people with disabilities out of the workforce ranges from 3 to 7% of GDP8.

In 2022, 27% of the EU population aged 16 and over had some form of disability.

According to Eurostat estimates, this figure is equivalent to 101 people or 1 in 4 members of the EU. Only half of people with disabilities are employed, while the proportion for people without disabilities is 3 in 4. 28.4% of people with disabilities are at risk of poverty or social exclusion compared to 17.8% of people without disabilities. Only 29.4% of people with disabilities have a tertiary education degree compared to 43.8% of people without disabilities. 52% of people with disabilities feel discriminated against. [28]

4.1. People with disabilities who work in the EU

The EU as a whole face a huge gap in quality employment for People with Disabilities (PWDs). Around half of the 42.8 million people with disabilities of working age are currently employed in the European Union (EU)[29]'

Inequality - Disability employment gap by gender and degree of activity limitation

The difference between the employment rates of people aged 20–64 who have no limitations in their daily activities and those who have some or severe limitations is known as the disability employment gap. The number of people aged 20–64 who are employed is divided by the total number of people in the same age group to determine the employment rate. EU Statistics on Living Conditions and Income (EU-SILC) is the source [30]; [31].

4.2. Disability in Greece

According to the data collected in the context of the 1st wave of the Labour Force Survey -2022, [32], the population of persons with disabilities aged 15 and over is estimated at 10% of the population. In absolute numbers, persons with disabilities, based on the reference survey and the processing of the Disability Issues Observatory, were estimated at 1,054,735 [1].

4.2.1. The productive ages 20-64 years:

- The percentage of people with disabilities aged 20-64 participating in the active workforce (labor force) was found to be at a particularly low rate of 23.7%.
- The percentage of employed people with severe disabilities aged 20-64 is only 18.4% (41,909 people), with the employment gap of people with disabilities, i.e. the difference in employment levels compared to the population without disabilities, not calculated at 50 points.
- Of all unemployed people with disabilities (20-64 years old), 65% face long-term unemployment, i.e. unemployment lasting 12 months or more.
- Almost 5 out of 10 people with disabilities have a higher educational level up to lower secondary education (High School), while 1/3 of people with disabilities have only finished primary school or have attended a few grades of primary school.
- The educational level was found to be even lower among people with disabilities who are not in the labor force (neither working/nor looking for work), compared to the active population with disabilities.
- An interesting finding is the differentiation of educational levels between employed and unemployed persons with disabilities, with the unemployed not only not appearing to have a lower educational level in comparison, but also not having higher participation rates in the highest educational levels. In particular, 9% of the unemployed hold a master's degree/degree or doctorate, when the corresponding percentage among employed persons with disabilities is 2%.
- Compared to people without disabilities, people with disabilities show greater participation in the sectors of "Agriculture, forestry, fishing", "construction" and "administrative and support activities". On the contrary, they show lower comparative participation in "professional, scientific and technical activities" and "Education".
- 57% of employed people with disabilities found work through friends, relatives, or acquaintances, compared to the corresponding percentage of 38% of people without disabilities.
- The percentage of people with disabilities who found work through OAED, as well as others who turned to employers, is particularly low. The percentage of people with disabilities who report responding to an advertisement as a successful way of finding work is almost zero.

4.2.2. Young people and people with disabilities in their early adulthood (15-44 years old):

- The labor force participation rate among young people and adults up to 44 years of age is at a low level of 16%.
- The employment rate of young people and adults up to 44 years of age is only 12.5%, while in the same age group, people without disabilities are included at a rate of 58%.
- A particularly worrying finding for young people and people in early adulthood is that the vast majority of them, not only constitute an economically inactive population but are also outside the educational process, either formal or informal. More specifically, 82% of inactive people with disabilities aged 15-44 do not attend any education or training program, either outside the formal education system.

The percentage of people with disabilities aged 20-64 who participate in the active (labor force) is 23.7% and of employed people with severe disabilities aged 20-64 only 18.4%! Of all unemployed people with disabilities (20-64 years old), 65% face long-term unemployment.

The vast majority of young people with disabilities are not only out of the workforce at 84%, but at the same time they are also out of the educational process: 82% of economically inactive people with disabilities aged 15-44 do not attend any education or training program.

The population of people with disabilities aged 15 and over is estimated at 10% of the population. In absolute numbers, people with disabilities, based on the reference survey and the processing of the Disability Issues Observatory, were estimated at 1,054,735.

4.2.3. The productive ages 20-64 years

The percentage of people with disabilities aged 20-64 participating in the active workforce (labor force) was found to be at a particularly low rate of 26%.

The percentage of employed people with severe disabilities aged 20-64 is only 18.4% (41,909 people), with the employment gap of people with disabilities, compared to the population without disabilities, not estimated at 50 points.

4.2.4. Young people and people with disabilities in their early adulthood (15-44 years old)

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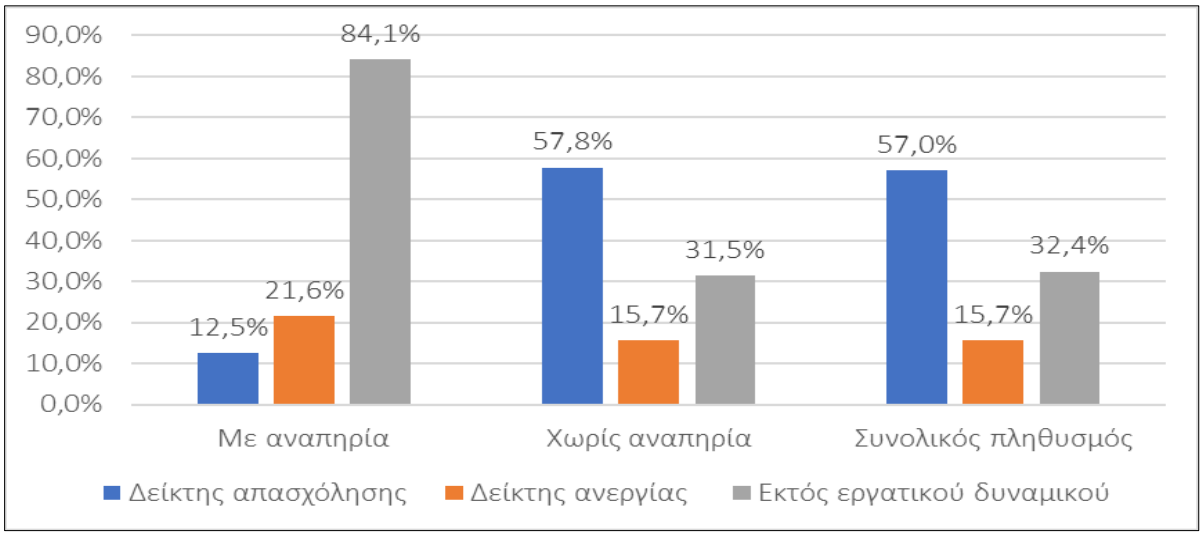
For people with disabilities who are employed, the analysis of the data leads to the conclusion that finding a job in this category of citizens depends to a significant extent on the functioning of social networks, family, and social environment. More specifically, 57% of employed people with disabilities found a job through friends, relatives, or acquaintances, compared to the corresponding percentage of 38% of people without disabilities.

The percentage of people with disabilities who report responding to an advertisement as a successful way to find a job is almost zero.

Figure 5 Youth and adults 15-44 years old: Employment and unemployment indicators and disability status (EEA, 2022)



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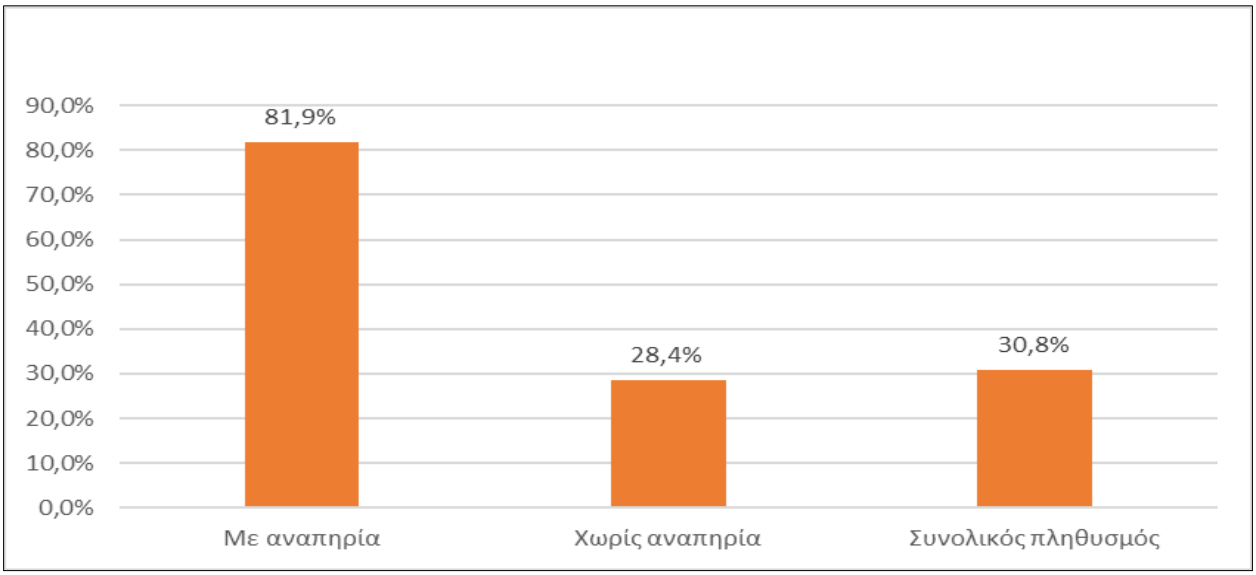

Figure 6 Percentage of inactive population (Outside the labor force), not in education and training (formal or informal) and disability status (EEA, 2022) [32]

5. Youth with disabilities face unique challenges in accessing jobs

Young people with disabilities face a double burden when entering the workforce. They face barriers that young people face in entering labor markets and face additional barriers of infrastructure, institutional, and attitudinal barriers related to their disability. They are often disadvantaged and enter the labor market with a skills deficit and a lack of prior work experience. When they do work, they are more likely to be in low-paid jobs with poor career prospects and poor working conditions. The common challenges that young people with disabilities face in terms of accessing jobs – employment and entrepreneurship – are summarised below (Table 1). [33]

Table 1 Common challenges faced by youth with disabilities in accessing jobs [8]; [34]; [35]; [36]; [37]; [38]

Inaccessible physical and digital infrastructure	• Barriers in classrooms, workplaces, and public spaces such as toilets and cafeterias (including lack of signage, and navigation). Digital tools, platforms, and other technological products and services often exclude young people with disabilities. • Due to the lack of accessible public transportation, young people with disabilities often face additional costs in accessing skills programs. • Measures to address barriers usually only concern people with physical/mobility disabilities.
Training design and implementation	• Young people with disabilities are often placed in skills training programs in segregated settings where the curriculum is not linked to labor market requirements9, making them less marketable to employers. The occupations taught often do not meet labor market requirements. Programs often make restrictive assumptions about the capabilities of people with disabilities. • Criteria for accepting training candidates, such as age, minimum educational qualifications, and previous work experience, often unintentionally discriminate against candidates with disabilities. • Educators must be trained and equipped to diversify their strategies and incorporate different types of learning into their classes/training. Educators who are not certified

	in these adapted approaches may perpetuate stereotypes and cause further alienation/harm to people with disabilities. • Training programs are usually in urban areas, often remote from where people with disabilities live and disconnected from accessible transportation. • Lack of reasonable modifications to performance appraisal and evaluation processes may inadvertently prevent learners from demonstrating their learning and competence.
Lack of inclusive business development services	• People with disabilities are often denied access to bank accounts, loans, and start-up capital due to inaccurate assumptions about their productivity. Financial institutions often lack disability sensitivity and training and accessible frontline staff materials. • Support services, including web-based services, may not be available in accessible formats such as Braille and sign language. • Venues where support is provided may not be accessible. Accessible transportation options may be limited or expensive, limiting people with disabilities from meeting new customers, discovering new products, etc. • Funders face pressures to move quickly to the next case rather than providing longer-term support to those being helped ("tick-box culture"). • Access to new markets to grow their businesses: It may take more work for an entrepreneur with a disability to gain potential customers due to stigma and lack of faith in the abilities of an entrepreneur with a disability
Stigmatization	• Social norms, stereotypes, and prejudices, including those held by immediate family members, negative assumptions of productivity, and in some cases low self-esteem. Negative perceptions by employers that young people with disabilities are less productive than their non-disabled peers and need additional assistance can raise concerns about the initial costs of recruitment (e.g. ramp buildings, accessible IT). • However, studies have shown that most accommodations do not impose a significant financial cost on the employer and individual without a disability. • Use and benefit from supportive policies and practices in the workplace.10 Young people with disabilities are given little room for error and are quickly labeled as unemployed.
Cross section	• The intersection of disability with other identities such as gender, ethnicity, indigenous identity, and migrant or refugee status can exacerbate the disadvantages young people face in accessing jobs. • Educated young women with disabilities are reported to take longer to find work11.

6. ICT and disability

Digital transformation refers to the use of advanced technologies, such as artificial intelligence, teleworking, and online learning platforms, to improve services and working conditions. For people with disabilities, technology can offer significant benefits, such as:

- Accessible tools and assistive software: Voice recognition applications, Braille displays, augmented reality (AR) technologies, and accounting to assist users in interacting with the digital environment.
- Education and training through online platforms: MOOCs (Massive Open Online Courses) Open Online Courses) and customized e-learning platforms provide access to knowledge beyond physical limitations.
- Teleworking and flexible forms of employment: The ability to work from home eliminates many of the barriers to mobility and protection, allowing people with disabilities to participate more actively in the labor market.

7. Opportunities through Digital Transformation

Technology offers solutions that can facilitate the integration of young people with disabilities into the labor market

- Education & Skills Development: Digital education tools in adapting to the needs of people with disabilities. For example, e-learning enables flexible learning, while artificial intelligence can adapt content based on the capabilities of each individual.

- Labor Market: New forms of employment, such as teleworking, freelancing, and entrepreneurship through digital platforms, offer new opportunities for people with disabilities.
- Policies & Strategies: Various European programs, such as Jobs 4 All and Erasmus +, seek to strengthen vocational training and the connection of young people with the labor market.

8. Good Practices and Successful Examples

There are devices, initiatives, and programs that have proven that digital transformation can offer real solutions:

Jobs 4 All program: An initiative that aims to strengthen the digital skills of young people with disabilities and connect them with employers who support the opportunity.

Companies with inclusive practices: Multinational companies, such as Microsoft and Google, have developed hiring programs for people with disabilities, offering access to work environments and adapted jobs [39]; [40].

Technological developments have led to a growing digital economy, creating new forms of work and digital employment opportunities. Large companies are increasingly contracting with smaller companies in other countries to perform entire business processes and functions. The digital "gig" economy is a significant and growing source of new digital jobs characterized by flexible working arrangements and supported by platforms such as Upwork and Amazon. Mechanical Turk. The COVID-19 pandemic has also contributed to the rise of digital opportunities and the growing recognition of teleworking and remote opportunities. The digital transformation of work and education that was already underway before the crisis is accelerating as governments, companies, and workers look for ways to minimize human interaction to mitigate the spread of the virus. [34]; [35]; [36]; [37].

8.1. What are digital jobs and digital skills?12

All work that uses or is enabled by ICT can be considered "digital work" — a broad definition that includes most jobs in advanced economies. "Digital work" is not just about careers in the ICT sector. There is a growing demand for digitally skilled workers outside the ICT sector. Digital jobs exist in all sectors, but they vary in how technology-based they are.

8.1.1. Broadly speaking, there are three types of digital jobs:

- ICT-intensive jobs created directly through the ICT sector and with intensive use of ICT, such as mobile application development.

- ICT-dependent tasks that cannot be performed without technology, such as online freelance work and customer call centers.

- ICT-enhanced tasks that use digital technologies but could be performed without ICT, such as accounting and graphic design. In order for young people to be able to successfully perform digital work, they need to develop digital skills.

8.1.2. Digital skills exist on a continuum, ranging from basic to advanced:

- Advanced digital skills: necessary for creating, managing, testing, and analyzing ICT, related to application development, network management, machine learning, and big data analysis, among others.

- Intermediate digital skills: job-ready skills needed to perform work-related functions, such as desktop publishing, digital graphic design, or social media management.

- Basic digital skills: required general ICT skills related to the effective use of ICT, including performing web searches, sending emails, or using professional online platforms. Additional work-related skills that young people need to succeed in the digital economy include cognitive skills, socio-emotional skills, and basic literacies.

9. Accessible ICT

Accessible ICT and information technology is a technology that can be used by people with a wide range of abilities and disabilities. It incorporates the principles of universal design.

Every user is able to interact with technology in ways that work best for them.

Accessible technology is either directly accessible - in other words, it can be used without assistive technology - or it is compatible with standard assistive technology.

The added design principles can also be used by people with a wide range of abilities.

Specific data on their employment status is even harder to find. However, people with disabilities face the same difficult situation everywhere.

According to the International Labour Organization (ILO), an estimated 386 million of the world's working-age people have some type of disability. Unemployment among people with disabilities is as high as 80 percent in some countries. Employers often

Assume that people with disabilities cannot work. Why hire people with disabilities?

Like others, the majority of people with disabilities want a dignified and productive life.

Employment provides not only income but also social participation. This is very important for people with disabilities.

Spending on systems and facilities for people with disabilities is not a privilege for a small minority, but an investment for all.

Various working groups develop solutions to business challenges.

Many companies have found that by employing people with disabilities they have been able to better understand and serve their customers with disabilities. Adapting services to meet the diverse needs of people with disabilities allows businesses to grow more flexibly, build reputations, and reach a larger market.

However, employment outcomes for people with disabilities continue to grow, where new technologies can enable workers with disabilities to be competitive in the workplace, and enable those who were previously economically inactive to enter the workplace and earn a living.

Recently, the emphasis on ICT capability has been on contributing to the development of people with disabilities as well as their economic independence and promoting inclusive societies and sustainable development.

Technological change led to automation of tasks previously performed on a labor-intensive basis, and some lost their jobs as a result, it was overall positive for people with disabilities to be particularly prevalent in the workplace.

In addition, the cost of assistive technology, the lack of policies that broadly favor ICT employees, and the lack of policy and/or lack of effective implementation mechanisms.

10. ICT accessibility to increase access to work

ICT accessibility is an important factor for a more productive and inclusive workforce as it overcomes physical barriers, clarifies communication, and approaches knowledge in a way that is appropriate and adapted to the needs of the user, whether disabled or not.

Many assistive technology solutions can help in various professions and workplaces! Application programs such as screen readers enable people who are blind and visually impaired to access jobs. People with mobility disabilities can use assistive technologies such as special keyboards or eye tracking, and voice recognition, which search instead of a mouse or keyboard. alternative input devices that have control over computers via means other than a standard keyboard or mouse (e.g. head-operated pointing devices and " sip " systems) and puff " controlled by breathing).

Many employment opportunities for women and men have been made possible by other new technologies that replace physical work with automated production of commodities or necessary tasks. Additionally, new assistive gadgets enable people with impairments to undertake tasks that were previously inaccessible.

Indirectly, assistive devices also include those that facilitate their preparation through a comfortable workspace. Individuals with disabilities can contribute valuable skills, abilities, and experience to this industry. By removing obstacles that may keep people with impairments from working to their full potential, an accessible workplace can increase productivity.

The capacity of individuals with disabilities to get employment and advance in their current position is impacted by numerous factors. constraints pertaining to behavior, legal competence, infrastructure and information accessibility, lack of reasonable accommodations, and obstacles to education. The employment of individuals with disabilities is significantly impacted by societal constraints, although many of these hurdles have been eliminated for those with disabilities in their professional goals since the introduction of ICT and technical innovation. [38]

11. Dangers to individuals with disabilities

As was already indicated, individuals with disabilities could find it difficult to pay for and use the Internet and ICT, which could keep them from using platforms or online hiring procedures used by businesses.

People with disabilities would be unable to take advantage of potential opportunities if the digital tools required to enter the workforce and assist them in their responsibilities are not complete and easily accessible. Therefore, compared to those without disabilities, people with disabilities would be at a disadvantage. When it comes to working remotely, it's critical to make sure that individuals with disabilities have access to the tools and modifications they need at home and that the platforms being utilized satisfy accessibility requirements. For instance, the absence of costly closed captioning devices frequently prevents deaf persons from attending meetings.

In order to prevent workplace modification, employers may often push employees with impairments to work from home. Employers should continue to make their offices and workplaces accessible since remote working should be an option rather than a must.

Not all jobs allow for remote work. For instance, frontline staff were unable to work from home during the pandemic. Additionally, remote work has increased since the crisis, particularly in high-paying jobs66.

People with impairments may also be at danger from the isolation and obscurity that come with working remotely.

People with disabilities will fall behind once more if they do not learn the digital skills necessary to use digital technologies and remote working capabilities, such as effective written communication, teamwork, focus, time management, and adaptability.

Persons with disabilities may be at danger when artificial intelligence is used in hiring procedures because of things like "personality tests that disproportionately screen people with disabilities"68 and "the analysis of facial and voice movements during recruitment," which may not be accessible [6]; [41]; [42] .

12. Digital work opportunities for young people with disabilities

It is essential to make sure that young people with disabilities may engage in and profit from digital jobs. For young individuals with disabilities, teleworking and distant, distributed work opportunities through the Internet can open up new opportunities13. This is especially crucial for young women with disabilities and in communities where there are substantial physical impediments to employment. Some individuals with impairments might greatly benefit from flexibility in scheduling their work hours and location, which enhances work-life balance. For certain people who might not be able to work full-time or at certain hours, it provides opportunities.

Since some digital professions are entry-level and others require advanced expertise, people with disabilities with varying educational backgrounds can access them. Young persons with impairments might thus benefit from digital job experience by creating a professional network and employment history for potential future chances. New assistive technology has changed the human-project interface's characteristics in ways that can help level the playing field for individuals with disabilities.

Young people with impairments have numerous new options thanks to digital jobs, but there are drawbacks as well. The technological, social, and political difficulties that come with working in digital jobs must be taken into account. These include, but are not restricted to, the hazards of isolation14, the biases of online platforms, the lack of proper

social safety mechanisms, and the inaccessibility of digital tools and other infrastructure. In the sections that follow, we go into greater detail about these problems and offer some possible fixes that policymakers and practitioners might want to take into account when creating inclusive digital jobs policies [8].

13. "Women, disability & ICT" ways of treatment & the contribution of ICT (information & communication technologies)

Robots, electronic devices, and technology are essential for enabling men and women with disabilities to integrate into society because they break down obstacles. ICT education for individuals with disabilities is especially advised in programs aimed at addressing inequality. It has been scientifically demonstrated that ICT helps people with disabilities overcome physical obstacles and alleviate deficits, allowing them to access knowledge and overcome social isolation. By enabling them to communicate and interact as equal members of society, ICT helps restore social reality.

Lastly, in order to achieve inclusion and integration, ICTs can present a fantastic chance for women and those with disabilities to obtain employment, entrepreneurship, and decision-making roles.

Inclusive development for disability and gender equality can be achieved through inclusion

For an inclusive and just world, appropriate strategies should be put into practice to ensure inclusive development for people with disabilities, gender equality, and cooperation between all as equal members.

For this to happen, walls must be "torn down", barriers that separate people based on different identities, religious beliefs, gender, origin, etc. must be removed. And to develop and implement programs with the main objective of raising awareness and examining racism against the disability of women and girls, regarding employment, education, health, violence prevention, economic empowerment, and leadership.

Technology and electronic devices are key factors for the access of women and men with disabilities to society, as they destroy barriers and play an important role in integration.

In policies to address inequality, the education of people with disabilities in ICT is particularly important. It is scientifically proven that in the case of people with disabilities, ICT manages to overcome physical barriers and alleviate deficits, so that they can access knowledge and overcome isolation, restoring social reality as they enable communication and interaction with it as equal members.

Finally, ICT can offer a great opportunity for women and people with disabilities to have access to work, entrepreneurship, and reception centers. [32], [39] , [41], [42' [43].

Fani Gore heads to Spain where there are some promising cases [17]

In Spain, the number of people with disabilities entering the labor market has increased by over 20% in the last six years, mainly thanks to public funding and programs.

In Madrid, the ONCE Foundation supports projects that help improve the lives of people with disabilities, such as "Digital Talent," a professional integration program that offers digital and technological training.

23-year-old Alicia Gomez Escribano completed training in programming within the framework of "Digital Talent". The young woman has hearing problems. She recently found her first job. She tests applications at the Traga Group: "I lose my concentration with the conversations. So, they put me in this isolated place, so I have fewer headaches. They've also ordered me a noise-reducing headset."

Alicia's company, which is state-owned, has adopted an integration plan, and this means that it takes into account the important social needs of all its employees.

14. Technologies

Alicia is starting her career in a dynamic sector, where she feels fully integrated. This is one of the ambitions of the Pillar of Social Rights: to have a guide for fair and inclusive social policies in Europe.

Krakow, Poland. Monika Jankowska-Range low is paving the way for equality in the workplace. She is an expert in diversity and inclusion of people with disabilities in the workplace at EMEA: _"_I have a mobility disability. I got sick when I was 2. My general condition is dermatomyositis, which limits my mobility. But it also caused me other illnesses."

Monica invites us to her home to tell us more about her university career. It is one of the main obstacles in the path of people with disabilities: in Europe, about 30% of disabled people obtain a higher education degree, while the corresponding percentage for people without disabilities is over 40%: "I was lucky enough that my parents always explained to me that I cannot do physical work, that I should not do physical work. I was planning to finish the pedagogical department but I could not go, because of the urban transport."

So, Monica got a degree in foreign languages. Step by step she made her dream a reality. Her determination helped her overcome many obstacles. Because even if companies support social integration, losing the disability pension is one of the obstacles that these people face when they want to find a job: "Removing the obstacles would be beneficial, because I have a lot of expenses, for example for my medicines every month. Even if I work, it is always difficult to cover all the expenses ".

In Greece, the National Strategy for Youth Employment emphasizes the digital transformation of the Vocational Education and Training (VET) and Lifelong Learning (LLL) systems, aiming to upgrade the infrastructure and equipment of educational units. This strategy includes specific actions for equal access to VET and LLL, with an emphasis on vulnerable groups and the low-skilled population, including people with disabilities.

At the same time, the Greek plan "Greece 2.0" recognizes the need to address the digital divide that may arise for children with disabilities due to the digital transformation of education. It provides for the provision of special support aids and digital equipment, as well as the modernization of the technological equipment of special schools and inclusion classes, in order to ensure an equal transition to digital education for all students. [42]

The importance of all digital technologies in the field of education is highlighted in our final point. ICTs support universal access to education, provide innovative approaches for effective teacher training, enhance learning retention, promote cooperation, increase openness, develop learner-centered approaches, and hasten the process of learning. Additionally, by using virtualization, mobilization, artificial intelligence, and new learning environments like virtual worlds, support educational activities and methodologies. More specifically, ICTs are very effective and productive in disabilities training, facilitating and improving assessment, intervention, and educational procedures via mobile devices that bring educational activities everywhere [45-47] and through a variety of ICT applications that serve as the backbone of education [48-55]. While games turn education into a multimodal, incredibly amiable, and enjoyable interaction [60-61], the use of AI, STEM, and ROBOTICS raise educational procedures into new levers of adaptation, creativity, and performance [56-59]. Furthermore, the adoption, improvement, and fusion of ICTs with theories and models of metacognition, mindfulness, meditation, and emotional intelligence cultivation [62-73] places the development of mental abilities at the center of educational procedures and policies, which accelerates and improves educational practices and outcomes, particularly in children with disabilities treated in the domain and its procedures like assessment and intervention.

15. JOBS 4 ALL Project: Empowerment of the Employability and Key Responsibilities of New People with Disabilities Through the Digital Transformation and Modernization of Youth Work

The ERASMUS + program, JOBS 4 ALL, duration 30 months, aims to enhance the employability and basic skills of young people with disabilities through digital transformation and the modernization of youth work. Coordinated by the National Center for Natural Sciences Research "Demokritos" and their partners: Associa çã o Portuguese for Disturb it. Do Development e Autism de Coimbra (Portugal), Youth Training Center (Cyprus), Metropolisnet - European Metropolis Employment Network EWIV (Germany), Emphasys Center (Cyprus), 2nd EPAL of Agia Paraskevi (Greece) and Zespol School Specjalnych I am. Janiny Porazinskiej w Ignacowie (Poland) aimed at fostering an entrepreneurial community that will improve the employment integration of young people with disabilities and enhancing their skills through the use of virtual reality (VR). Training programs and resources for companies, youth workers, and youth with disabilities have been developed as a result of the project. Skills mapping, tool development, and the establishment of an employment hub are among the subjects covered in these courses. Furthermore, the project has created guidelines for the JOBS 4 ALL project's methodology, emphasizing the creation of dual training for representatives and youth workers who interact with young people with disabilities. You can purchase the official JOBS 4 ALL website to learn more about the project and the training resources that are offered.

The main goals are to improve youth work by addressing the need for digital transformation and to guarantee social inclusion, access, and labor market involvement for young people with disabilities (YPwDs). The project is to address the demand for cutting-edge digital tools to enhance youth work by raising quality and creativity and to help YPwDs develop their employability skills.

Additionally, the project intends to enhance the abilities and proficiencies of Youth Workers (YW), trainers, educators, and others that collaborate with YPwD in order to advance training approaches that will raise the bar for training programs accessible to this susceptible demographic. The outcomes of the JOBS4ALL project will thus help to improve current practices while also fostering a larger community that will support them with opportunities in the job market to improve equal access and participation, which will demonstrate the growth in self-assurance for personal growth.

By using virtual reality and creating a business community, JOBS4ALL was able to improve the employability skills of young people (those aged 15 and up) with disabilities, increase employment opportunities, and strengthen the structural dialogue between schools, businesses, and youth educators. improving the level of equality in the workforce.

To support the development of employability skills in specific industries, such as professionals, hairdressers, and food services, the JOBS4ALL project aims to design, develop, pilot, and promote an interactive virtual reality game for the European community. These skills will include social skills, employability based on each profession, digital, health, safety, and hygiene.

15.1. In particular, the project

- Integrate cutting-edge technologies into youth work to improve its caliber by creating a set of VR/AR simulations called SCENARIOS for educational, learning, and evaluation objectives. Particularly during times when apprenticeships and work-based learning are prohibited, the simulation helped young people with disabilities investigate the various fields of labor and determine the skills required, the tools used, the procedures followed, the regulations, etc.
- Start a program that builds the capacity of YW and YP to develop employability skills through blended learning opportunities for professionals and youth workers who work with YPwD.
- Create a labor market policy advocacy initiative that aims to successfully integrate individuals with disabilities into the workforce. This initiative should include:

YW, WP, and pertinent stakeholders engaged in a structured dialogue as part of the public consultation process, which resulted in synergy and, eventually, an e-business network that includes interaction and communication features like e-Community and Forum.

Targeting businesses and organizations via webinars and podcasts, awareness initiatives aim to establish and guarantee an inclusive workplace culture for youth with disabilities.

A commitment to give young people with disabilities employment possibilities in order to support this initiative.

Establish Community Employment Hosts in multiple locations (such as municipalities, community centers, and partner organizations) that provide the JOBS4ALL program in a structured way with a flexible schedule. weekly, during intensive, summer, or other school-related programs, etc.

Create and manage the JOBS4ALL platform, which consists of the following features: - Mapping Tool, which will be updated continuously with companies and organizations that provide employability and job placements to individuals with disabilities.

YW, educators, and others can access an e-learning environment that includes the Training Program and -Training Pack, which includes activities connected to employability skills with an emphasis on professional services and the circular economy, or any other kind that the consortium determines. For each area, such as digital, computer skills, employability skills including teamwork and communication, webinars were also created using the Competence Framework.

A business training program that includes a guide on how to foster an environment at work where individuals with disabilities are accepted and included.

-Increasing consciousness: Videos about business inclusion and incentives—tax, legal, financial, organizational, social, etc.—to encourage employment and give companies incentives to hire individuals with disabilities and educate them about the needed employee culture and work environment.

16. Conclusion

The right to work and education is the cornerstone of social participation, as career advancement is one of the key issues in a person's adult life. The possibility of employment for people with disabilities offers, among other things, income benefits, social contacts, social recognition, and moral competence. People with disabilities must be able to obtain all of the above on the same terms as any other citizen. The state must allow them to be guided in a meaningful way toward independent living, electronic social inclusion, and improved quality of life.

The EU, together with other global organizations and the legislation of the Member States, attempts to examine all kinds of restrictions and discrimination. The main members are the human rights approach and the understanding of harm and disability, seeking to create a strengthened position for people with disabilities, and recognizing the discrimination and inequality they suffer. Perceptions of disability, especially in the Greek area, still have a long way to go to align with these policies. It is therefore necessary to have universal and global vigilance on this issue, as well as to inform citizens about the elimination of any discrimination.

Ana Belén del Campo is a project manager: "I think the key is good communication between the labor manager and the employee about the job they have and what they might need. The company should reflect what society is."

The "Digital Talent" program trains people with disabilities in new technologies, where there are many others, as David explains to us. Alonso, head of vocational training at ONCE: "We are taking advantage of our specialized position in the labor market to train people who will be just as productive as a person without a disability. People with disabilities must be present in all areas of society."

Partly funded by the European Social Fund, this program has trained more than 5,000 young people in 2021. It aims to launch a new course in the new

Improving effort and financial support, as well as implementing social inclusion policies at work, are for Monika the ways to remove obstacles: "I think the key is education and awareness-raising of all employees so that there is no exclusion and that they think of other people as they would think of themselves. There are more and more people with disabilities around us, and like me they deserve the right countries at work, to be active and to live their lives to the fullest," emphasizes Monika Jankowska-Rangelov.

Enhancing the employability of young people through the use of digital transformation is a crucial issue for the implementation of an inclusive society. The European Disability Strategy 2021-2030 recognizes that the accelerated digital transformation and transition offer opportunities to harness information and communication technologies (ICT) to improve access to employment and education for people with disabilities.

Developing appropriate skills is a key dimension of employability. Research suggests that acquiring appropriate and correct skills is crucial for the integration of vulnerable groups, including people with disabilities, into the labor market.

Overall, leveraging digital transformation in combination with targeted policies and actions can significantly contribute to enhancing the employment of young people with disabilities, promoting their equal participation in society and the economy.

Technology can act as a bridge to enhance the employability of young people with disabilities, but full utilization requires collaboration between governments, products, and educational institutions.

Suggestions Challenges in the Employment of Youth with Disabilities

Despite technological developments, young people still face significant obstacles to their professional integration, such as:

- Limited accessibility to education and training: Although digital technologies have reduced the gap in access to knowledge, many programs are not fully accessible or do not provide appropriate accommodations for people with disabilities.
- Lack of tailored skills development programs: Traditional education methods do not always accommodate the specific requirements of people with disabilities, resulting in a lack of specialized skills needed in the job market.
- Prejudices and obstacles in the workplace: Despite legal regulations for the inclusion of people with disabilities, many businesses still maintain stereotypes and do not provide the necessary adjustments to positions.

Suggestions for improvement

- Adapting educational programs to make them more accessible and flexible.
- Enhancing accessibility to digital technologies through financing and tax incentives for businesses.
- Raising awareness among employers and promoting integration practices in the labor market.

Digital transformation has the potential to create a more inclusive work environment, where young people with disabilities can showcase their potential.

And participate equally in society and the economy.

UNESCO

- Through the sdg 4 initiative (sdg: sustainable development goals),
- It strives to support high-quality lifelong learning, which should take into account infrastructure and accounting requirements while it is offered without restrictions, by:
- There are educational initiatives that will provide continuous opportunities to those in exceptional need.
- It is knowledge and skills, whether they come from formal or informal organizations, that are accredited.
- It is access to advanced vocational education and training programs.
- Equal access to vocational education and training for people with disabilities continues:
- Illegal
- Discrimination,
- Defense of rights,
- Access to jobs in the public and private sectors training opportunities for self-employment and assistance in maintaining a job on an equal basis with others.

Compliance with ethical standards

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