

Right to Connect: digital inclusion for persons with intellectual disabilities

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Needs analyses and recommendations for the digital materials implementation **Deliverable D2.1**



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1. Introduction

This deliverable presents the outcomes of the work conducted in Work Package 2 of the RTCN project on Research and Innovation, regarding the digital literacy needs of persons with intellectual disabilities.

This work package included various tasks that aim:

- To accompany the consortium in producing results that are innovative and that are stooled on sound evidence and/or methodologies for the development of good practices.
- To develop background knowledge on digital literacy of persons with intellectual disabilities in the use of social networks and digital communication tools.
- To produce desk research on the state-of-the-art knowledge regarding relevant aspects of digital literacy of persons with intellectual disabilities.
- To produce recommendations for the development of training materials for persons with intellectual disabilities.
- To produce a competence framework of teachers/educators that support learners with intellectual disabilities to develop their digital skills.
- To implement methodological guidelines for accessible eLearning and specifically the design of an accessible digital platform.
- To design and develop material for research activities that pertain to project aims and actions.

In this framework, a systematic literature review was conducted in order to define the state of the art of the project, and inform the methodological framework. A summary of the literature review is presented in section 2, followed by the methodological framework of the study. The comprehensive literature review report can be found in ANNEX A of this deliverable.

In, addition a quantitative anonymous survey questionnaire was implemented in 5 countries and 10 partner. These are presented in Table 1:

Table 1: Consortium partners and countries

No	Partner	Country
1.	EUROPEAN ASSOCIATION OF SERVICE PROVIDERS FOR PERSONS WITH DISABILITIES (EASPD)	Belgium
2.	ASSOCIAZIONE ITALIANA PER L ASSISTENZA AGLI SPASTICI PROVINCIA DI BOLOGNA (AIAS Bologna Onlus)	Italy

3.	SAINT JOHN OF GOD COMMUNITY SERVICES COMPANY LIMITED BY GUARANTEE	Ireland
4.	EUROPEAN UNIVERSITY CYPRUS	Cyprus
5.	ERGASTIRI EIDIKIS AGOGIS MARGARITA	Greece
6.	ATEMPO BETRIEBSGESELLSCHAFT MB	Austria
7.	HERMES INTERACTIVA SL	Spain
8.	FUNDACIÓN JUAN CIUDAD	Spain
9.	UNIVERSITÄT LINZ	Austria
10	VEREIN ZUR FÖRDERUNG ASSISTIERENDER TECHNOLOGIE IN EUROPA	Austria

Partners aimed at further analyzing the themes that emerged from literature on digital literacy of persons with intellectual disabilities in communications tools and networks. Each partner localized and adapted the survey tool based on the needs and preferences of the participants in their local and institutional context. Results have been analyzed and summarized by each partner in a separate summary report (ANNEXES B – F). A shorter discussion and overall summary are presented in section 3 of this deliverable.

2. Literature Review and Methodological Framework

The RTCN project outputs and workplan are based on current literature and research on digital literacy for persons with intellectual disabilities. Before proceeding to the co-design and co-creation phases of the project, the consortium conducted a thorough literature review and analysis in order to define the most relevant state of the art knowledge in terms of digital literacy and use of social media by adults with intellectual disabilities of different ages. The research was led by EUC with the support of other partners and looked into relevant publications, such as scientific articles and books, on the challenges of digital literacy and social media usage of persons with intellectual disabilities. The outcomes aim to inform the methodology framework of the project, outlining the existing practices and barriers.

2.1. Literature Review

2.1.1. Research Questions and Methodology

The literature review has developed starting from the statement of various research questions that are followed by definitions, keywords, database selection, development of queries for research, specification of inclusion and exclusion criteria, search process, data extraction according to the specific

inclusion and exclusion criteria, and data analysis and results of the research questions. The intention was to provide an understanding into current barriers and needs, as well as good practices, regarding people with disabilities and digital literacy, as well as social media use. The following research questions were formulated to guide the literature review and analysis, all regarding persons with intellectual disabilities:

Research question 1: Definition of the field (digital literacy in relation to digital competences and digital divide) and the target group (adult persons with intellectual disabilities), identifying the areas of digital literacy based on the US Educational Testing Service report (access, manage, integrate, evaluate, create) – as highlighted in the proposal

Research question 2: Existing good practices and prospects (access, manage, integrate, evaluate, create)

Research question 3: Challenges, barriers, and accessibility issues (access, manage, integrate, evaluate, create)

Research question 4: Existing competence development for users and educators/ trainers of persons with intellectual disabilities

Research question 5: Relations of persons with intellectual disabilities and social media: an intersectional approach

Research question 6: Co-design methodology

Research question 7: *Methodological framework*

A general set of two queries was formulated to facilitate articles and resources search in the databases (see ANNEX A - comprehensive literature review report) included in the literature review. The two queries used a number of keywords involving concepts of digital literacy, accessibility, adults with intellectual disabilities, and the use of internet and social media. The exact list of keywords can be found in the comprehensive literature review document in ANNEX A of this deliverable.

2.1.2. Analysis and Results of Literature Review in Summary

The analysis of the literature review followed a thematic analysis based on the key issues pointed out by the 6 main research questions. The aim was to identify the main pillars on which the methodological framework of the project would be built. This is expected to guide the main outputs of the project, i.e., a co-design and co-creation methodology for developing e-learning and communication digital tools in

order to promote digital inclusion of persons with intellectual disabilities and empower their participation in the digital era. In summary the main findings of the analysis are briefly described in the following paragraphs. A comprehensive and detailed presentation and discussion of the methodology and the results of the literature review are presented in ANNEX A.

This systematic literature review has led to several valuable conclusions, one of which being that **persons with intellectual disabilities have less access to Information and Communication Technology (ICT) as well as fewer opportunities to learn how to use ICT.** Most of the research identified was associated with access issues, leaving aside components of managing, integrating, evaluating, and creating. Persons with intellectual disabilities were included in 90% of the research with human subjects. Perceptions and practices of persons with intellectual disabilities, carers, trainers, and staff within organizations were frequently included. On the other hand, designers and self-advocates were included less frequently.

With regards to gender representation, **when information about the gender of persons with intellectual disabilities participants was included in the literature reviewed, men and women were usually equally included.** Relevant research was found to be conducted mostly in Australia, the USA, the United Kingdom, and Spain, whereas no reports of findings from research in African countries were identified. Also, issues of ICT use by persons with severe and profound intellectual disabilities were less often a subject of research.

Areas of good practices identified included the use of technology and accessibility requirements, communication, social media, social inclusion enhancement, searching and evaluation of information, transportation, everyday living, safety in everyday life for persons with intellectual disabilities, gamification, and employment practices.

As it has been recorded, **the governments and other stakeholders have a responsibility regarding barriers and challenges for the use of ICT by persons with intellectual disabilities.** These include the cost of devices and different governmental definition of accessibility by different countries, but also the absence of accessibility policies and programmes. These barriers and challenges became more acute during the COVID-19 pandemic. General societal and attitudinal level barriers include lack of full accessibility (digital, physical, social), less services in transitioning to adulthood and workplace, lack of community integration, and potential stigma for the use of non-mainstream technology. **Barriers regarding the opportunity of persons with intellectual disabilities and their carers to access relevant**

services vary, and these concern assessment, training and support procedures. Technical parameters of the system are also important and can also lead to the abandonment of technology.

It is reported that **both persons with intellectual disabilities and their carers or trainers should have the digital competences to use ICT.** Performing web searches and the use of emailing, use of social media and YouTube, as well as safety concerns were recurring issues, whereas the use of forums supported technically and emotionally parents who needed it.

Persons with intellectual disabilities are reported to use digital technology to a great extent for social media and social networking. The use of social media is considered as an arena for formation of identity, and an opportunity for the person to remain anonymous. Nevertheless, **this entails dangers, as perceived mainly by their parents,** such as bullying or sexual exploitation.

Regarding co-design methodology in particular, the literature reviewed **acknowledged the importance of participatory research,** observation and discussion, workshops, interviews, focus groups, the use of storyboards in the design process, and the integration of an advisory board. This is a process that is often described as iterative.

Bibliographic references for the observations above can be found in the corresponding section of the comprehensive literature review report can (ANNEX A) of this deliverable.

2.2. Methodological Framework

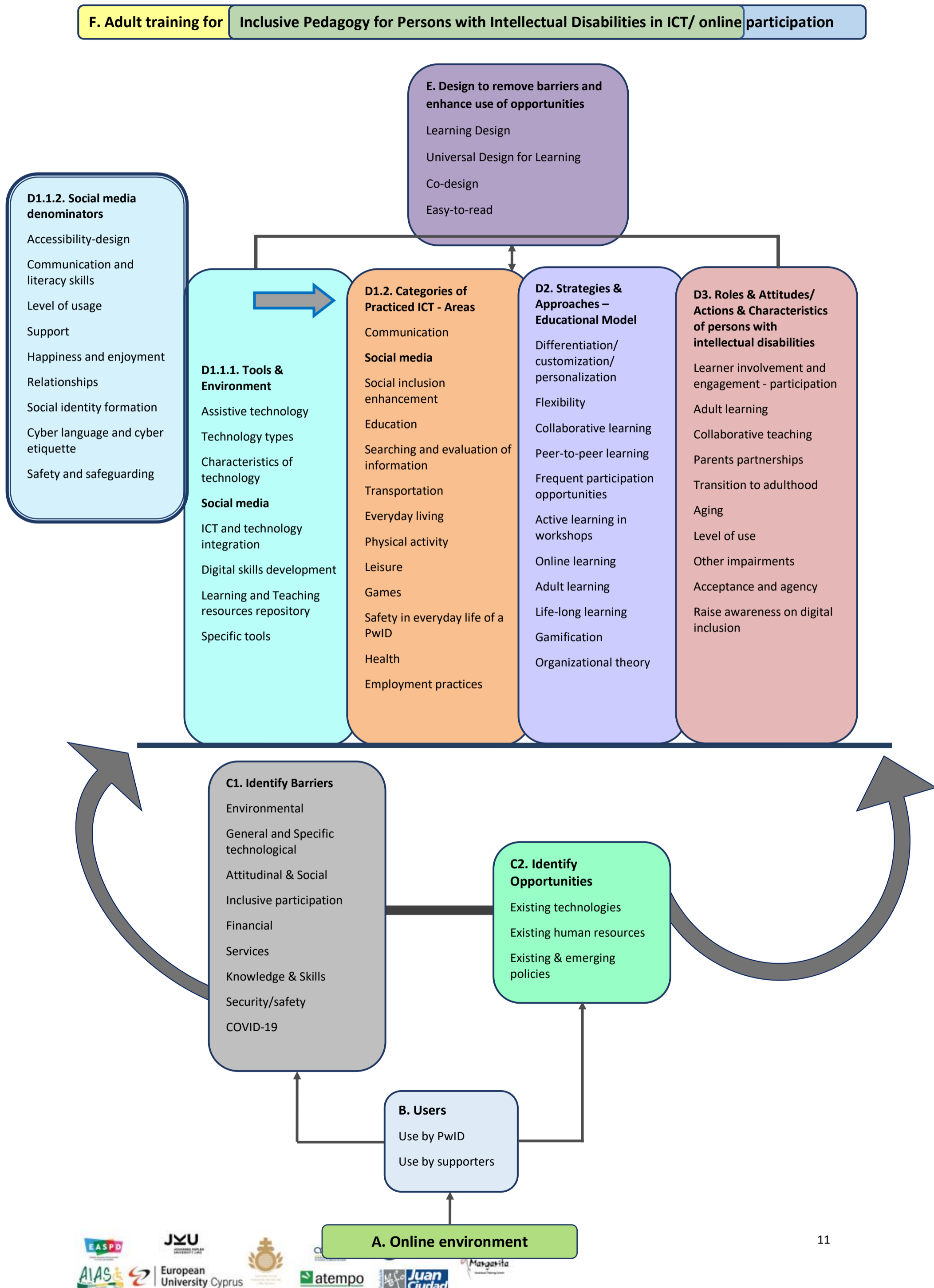
The aim of the literature review was to inform the next phases of the project, by providing a detailed insight of the state of the art and existing knowledge on the digital competences and digital inclusion of people with intellectual disabilities. This information is collectively outlined in a methodological framework drawn upon the main concerns in terms of barriers, opportunities, technologies, and the human aspect involved in promoting digital competences and inclusion for persons with intellectual disabilities, their families and the teams they are collaborating with.

A systematic approach was adopted to inform the methodology framework of the project, by outlining existing practices and opportunities, activities and tools, barriers, and the matching of technology with learners and contexts. That was important, in order to structure and understand the next steps of the project, regarding use of online ICT for persons with intellectual disabilities. The framework is presented below in two different levels of analysis: The first is presented in a synoptic diagram (Figure 15), and the second (which is more comprehensive) is presented bulleted, with headings and subheadings to guide

the reader through the diagram. The logic behind the classification framework for ICT-based learning technologies for persons with disabilities by Hersh (2017) was very useful for the formulation and presentation of our methodological framework, covering of course the needs of RTCN project.

Synopsis of the Methodological Framework

Figure 1 "Right To Connect Now" methodological framework



Comprehensive Description of the Methodological Framework

The description of the methodological framework has a bottom-up approach. Start reading from bottom (Online environment) to progressively leading to the Aim: Adult training for Inclusive Pedagogy for Persons with Intellectual Disabilities in ICT/ online participation.

A. Online Environment

Element A is the starting point for achieving the aims of the project. In this project the environment of activity and interaction is identified as the online environment, which can be accessed from:

- A family home.
- A residential home.
- A home where a person with intellectual disabilities resides with a friend or a partner.
- An organization where the person with intellectual disabilities receives services.
- A workplace.
- Commuting from one environment to another.

Of course, a combination of an organization or a workplace and a type of home is possible.

B. Users

The second element in the framework is the user of technology (and probably the online environment), who maybe be:

- The persons with disability themselves.
- An assistant. Regarding the assistants, when these are members of the staff, professional and practical knowledge should be enhanced with adequate modules of learning.

C1. Identify Barriers

Element C refers to barriers and opportunities that need to be identified in order to remove barriers and exploit opportunities towards the main aim of the project. In order for a person with intellectual disabilities to be supported in the use of ICT (including online digital technologies), barriers should be identified, as well as factors that might lead to failure. These barriers and factors include:

- Environmental factors: Access should be feasible in all contexts, and training might take place in a number of these contexts, including commuting from one context to another.
- General and Specific technological parameters of the system: These should follow COGA guidelines (World Wide Web Consortium, 2021), and also technical and functional requirements. Regarding COGA guidelines, these assist the user to:

- [Understand what things are and how to use them.](#)
 - [Find what they need.](#)
 - [Have available clear and understandable content.](#)
 - [Avoid mistakes and know how to correct them.](#)
 - [Focus.](#)
 - [Not need to rely on memory.](#)
 - [Have help and support.](#)
 - [Have support adaptation and personalization.](#)
- **Attitudinal & Social:** The use of dedicated assistive devices might be stigmatized by other people. Awareness is essential to remove stigmatization and prejudice. Also, stakeholders like companies that create their websites don't always take into consideration the needs of persons with intellectual disabilities.
 - **Inclusive participation:** Not all interested stakeholders are included in the procedure of design, training or access (e.g., designers, self-advocates, all carers).
 - **Financial:** The price of some devices or services might be too expensive when not reimbursed by the central or local state.
 - **Services related factors:** Not all services are always available, including assessment, training in use, and support for sustained use, especially during transition periods (to adulthood, to work).
 - **Knowledge & Skills:** Not all aspects of knowledge and skills required are always taken into consideration (technical and cognitive knowledge, emotional parameters).
 - **Security/safety:** Technical issues of safety are not always tackled with.
 - **COVID-19 and emergency situations:** The COVID-19 pandemic has exacerbated a number of already existing barriers. Similar results are observed in other emergency situations such as zones of conflicts.

C2. Identify Opportunities

Opportunities should also be identified as they are essential starting point for exploiting existing resources and developing new ones. Opportunities can include the following:

- Existing technologies: Devices that can be on loan, or provided by siblings, peers, friends.
- Existing human resources: A group of pioneers in each organization might lead the education of other staff.

- Existing & emerging policies: The mission statement of the organization should include these issues if they are to tackle with them.

D1.1.1. Tools and Environment

An important element of the framework is the Tools and the Technological Environment(s) in which these are used. In developing the platform and relevant tools in the project we need to take into account:

- Assistive technology: Considering both high-tech and low-tech solutions is helpful.
- Range of Technologies: All technologies can be used and adapted, if designed, developed, implemented in accessible manner. These may include both hardware and software:
 - Mobile technologies
 - Touch devices
 - TUIs
 - Speech recognition
 - Screen readers
 - Eye-tracking
 - AAC (Augmentative and Alternative Communication)
 - AT (Assistive Technology)
 - **Social media***¹
 - Facebook
 - YouTube
 - WhatsApp
 - Instagram
 - Snapchat
 - Google Maps
 - Serious Gaming
 - 3D gaming
 - 3D printing
 - Extended reality technologies
 - VR (Virtual Reality)

¹ An asterisk is used, to indicate that this is further elaborated in another section (section D1.1.2.).

- AR (Augmented Reality)
- NFC (Near Field Communication)
- Digital services
 - ATM use
 - Web-banking
- Characteristics of technology derived from categories of technology, are the following:
 - General digital accessibility
 - Input methods
 - Searching accessibility
 - Safety

D1.1.2. Social Media Denominators

The most important parameters that define the use of social media, or are defined by social media, are the following:

- Accessibility-design
- Communication and literacy skills
- Level of usage
- Support
- Happiness and enjoyment
- Relationships
- Social identity formation
- Cyber language and cyber etiquette
- Safety and safeguarding

D1.2. Categories or Practiced ICT – Areas

Another important element of the framework, is the categories of practiced ICT, that (to some extent) correspond to areas of life:

- Communication
- Social media
- Social inclusion enhancement
- Education
- Searching and evaluation of information

- Transportation
- Everyday living
- Physical activity
- Leisure
- Games
- Safety in everyday life of a PwID
- Health
- Employment practices

D2. Strategies & Approaches – Educational Model

Strategies and approaches used e.g., by trainers are very important and correspond to an educational model:

- Differentiation/ customization/ personalization
- Flexibility
- Collaborative learning
- Peer-to-peer learning
- Frequent participation opportunities
- Active learning in workshops
- Online learning
- Adult learning
- Life-long learning
- Gamification
- Organizational theory

D3. Roles & Attitudes/ Actions & Characteristics of PwID

The roles and attitudes that all stakeholders hold and actions they take, as well as characteristics of persons with intellectual disabilities, are very important when considering engagement with processes regarding digital inclusion of these persons.

- Learner involvement and engagement - participation
- Adult learning
- Collaborative teaching
- Parents partnerships

- Transition to adulthood
- Aging
- Level of use
- Other impairments
- Acceptance and agency
- Raise awareness on digital inclusion

E. Design to Remove Barriers and Enhance use of Opportunities

In order to make all the parameters mentioned above work together, a specific design is necessary:

- Learning Design
- Universal Design for Learning
- Co-design
- Easy-to-read

F. Adult training for Inclusive Pedagogy for Persons with Intellectual Disabilities in ICT/ online participation

This is the ultimate goal of Right To Connect Now project.

3. Methodology and Findings of the Needs Assessment

3.1. Method and Tools for Needs Analysis

3.1.1. Brief Description of the Context: current status is in the setting/context in relation to the issues relevant to the project, main purpose of the needs assessment

The needs assessment survey is the first phase of Work Package 2 “Research and Innovation” of the “Right to Connect” Erasmus+ Project. The survey was conducted in order to investigate the specific needs and competences and existing knowledge of people with intellectual disabilities who are trained in the five organizations that support people with intellectual disabilities, and who participate in the RTCN project. Having insights into existing capacity would help the consortium to better support people with intellectual disabilities to enhance their digital skills and therefore, be more independent.

The survey tool was designed in English by European University Cyprus, based on findings of the literature review that preceded. The tool was finalized based on partners’ feedback which partners then adapted to the specificities of their local contexts. Efforts were made to include issues discussed in the literature, while being careful not to collect information on sensitive or personal issues that were not strictly related to the purposes of the project, and which could make participants or their families feel

uncomfortable. The emphasis of this phase of Work Package 2 was mainly associated with digital accessibility issues, approached in a holistic way. Noteworthy is, nevertheless, the fact that while the participants were engaging in a research activity, they were also engaging in meaningful digital literacy components.

3.1.2. Brief Account of the Methods used Locally

The targeted number total of participants for this activity was around 50 persons, with each organization having recruited an average of ten participants who provided their informed consent (or assent along with their legal guardian's informed consent where applicable) for their participation. This provided enough input by people with intellectual disabilities to adequately allow their guidance and expertise to lead the resulting outcome of a universal, accessible e-learning platform. Furthermore, the selected sample size was proposed as it involved an accessible anonymous survey that was central to the first phase of the research. The following outlines the recruitment process undertaken by each partner who implemented this activity.

AIAS translated the survey in Italian as English would have been a potential linguistic barrier for Italian PwID, both in paper and in digital form (using Google Forms). Although the target sample size for this research activity was determined to be at least ten PwID for each organization, 14 respondents took part in the survey. AIAS' educators presented the project to a selected number of PwID at AIAS' daily centres (Principe Emilio, Fandango, Paranà, Selleri Battaglia). They all lived in Bologna, Italy. These users had already been involved in other activities concerning the use of digital tools, and they had been identified as possible trainees in the RTCN project, since they had expressed interest in the topic.

At **ATEMPO** the survey was conducted in written German, in analogue form (on paper). All ten participants in the needs assessment were trainees at the ATEMPO educational department. They all lived in Graz, Austria, and were between 18 and 28 years old. Six of them lived with their family of origin, whereas four of them had moved into their own apartments during the last 1-5 years, making use of residential assistance. Five of them were female, and the other five were male. Two of them had a migration background, but all of them had fluid German speaking competences. One of the participants worked part-time as a self-advocate for ATEMPO; the others participated in an educational program that helps with finding an inclusive job in the open labour market. Two of them had motor disabilities, and all of them had intellectual disabilities. They had been working/studying at ATEMPO for a range of between three months and 12 years.

The trainees were recruited during a trainer team session. The aim was to have a rather typical group of trainees interested in social media interested.

At **MARGARITA**, the researchers (a special and inclusive education teacher and a psychologist) first translated the survey tool in Greek and prepared an easy-to-read pdf file with information about the RTCN project, its goal and the partners, also in the Greek language. The group of participants consisted of ten people who were divided into two smaller groups and were presented with the information using a video-projector before the completion of the survey tool. The first group (six people) was the group that participates in the co-design labs and consisted of people with both poor and medium digital skills, and the second group only participated in the survey.

At **SJOG**, the competent local ethics committee in Ireland wished for the original quantitative survey to be made accessible further. Hence, the team in Ireland along with co-designers and the expertise from Speech and Language therapists had to create accessible, plain language questions, to elicit participants' perceptions and experiences of using the newly devised digital literacy and communication tool. The questionnaire was developed to allow further analysis of the themes that had emerged from the literature review on digital literacy (access, manage, integrate, evaluate, create) in communication tools and networks.

SJOG recruited 18 participants and used English language for the survey tool. The anonymous survey was completed by participants who had given consent to take part. Nevertheless, a person was allowed to have given consent to take part, but then decide for their reasons to not fill out the questionnaire

It needs to be noted that SJOG made the survey tool (still in English) accessible with the assistance of the speech and language therapist Polly Walsh and the co-designer and co-researcher Patrick Fitzgerald. The tool can be viewed here <https://www.rixeasysurvey.org/kiosk/JyY0> This link was shared with all participants who consented to be involved in the survey phase. The survey did not store any identifiers, IP, or names and was fully GDPR compliant. It was also fully ISO 9001, ISO 27001, ISO 22301 and PCI DSS compliant.

Regarding **FJC**, it needs to be noted that the Juan Ciudad Foundation (FJC), a member of the Hospitaller Order of St. John of God, does not directly offer services to people with disabilities. Therefore, it selected a center of the Hospitaller Order of St. John of God in order to carry out the activities of the project. The San Juan de Dios Center of Valladolid was selected for its innovative and consolidated

trajectory in the use of technologies and digital solutions applied to training/intervention aimed at people with intellectual disabilities.

Once the center was selected, the project was presented to the professionals and people with disabilities who were going to participate in the activities.

Within this center, participants were recruited based on the following criteria:

- Having a track record in the use of technologies applied to their training processes.
- Experience in co-design processes and design thinking.
- Having an intellectual disability.
- Being over 18 years old
- Being users of technology
- Ensuring the participation of men and women.

3.1.3. Overview of the ethics issues

The ethics approval process differed across sites. All partners were informed and abided by the legal and ethical framework in place in their local contexts. Further, it is noted that all the data collected through the survey were anonymous and all of the participants gave their informed consent. Where participants were under guardianship the informed consent of their legal guardian was also sought. The informed consent forms and information sheets were provided to participants in accessible form.

No raw data were exchanged between partners. As mentioned above, the survey tools were used to collect anonymous data. Each local team is responsible for keeping the data collected locally secure including the personal data (participants' name) that appears on the informed consent forms. The national reports were formulated into an aggregated report and no individual participant was identified.

At **AIAS**, in order to reach a larger number of users, the questionnaire was administered through an online tool as well as in person, on paper. All the results were later uploaded on the google form in order to facilitate their analysis. During the filling out of the survey tool, educators were present in order to support the users with any possible question. The survey was delivered from July to August 2022.

At **ATEMPO**, the survey was conducted at two different dates for the two groups: The first group of five trainees filled out the questionnaire on September 28th, 2022, whereas the second group of also five trainees did the same on September 29th, 2022. In the first group, all the participants read the

instructions by themselves and only asked questions where they needed clarifications. In the second group, a trainer read out loud all the questions and the participants would ask in case of difficulties in understanding while going through it, question by question, together.

At **MARGARITA**, the research tool used was an online questionnaire, written in an easy-to-read form, with the use of text and copyright-free images. A Google Docs file with tables and lists was used, so that the correct answers could be easily ticked. All the participants were supported by the two project researchers.

At **SJOG** participants self-recruited after reading and/or watching the easy-to-read information leaflet and consent form that the gatekeeper had sent to them, signing the consent form, and returning it to the Principal Investigator (Sarah Gavra Boland) in the stamped addressed envelope supplied.

Regarding **FJC** respondents, the survey was carried out in person by six people with disabilities who received the necessary support from their two reference professionals. The survey was filled out during the period of one hour.

3.1.3. Challenges and Considerations

At **MARGARITA**, further communication was necessary for some families, regarding ethics issues. Also, in cases where a beneficiary in legal guardianship wanted to participate in the research but their legal guardian had given a negative consent form, the social service of MARGARITA intervened in order to support the beneficiary's will. The participation of beneficiaries only moved forward if both the beneficiary and the legal guardian consented. Secondly, some difficulties were met concerning the understanding of the content of the questionnaire. A few participants (3/10) had difficulty answering introductory questions, specifically those concerning their age and level of education, while all of them (10/10) needed further explanation and support to answer questions regarding the type of school they have attended most of the years, and whether they use support for communication.

In questions where the number of possible answers was not specifically defined, beneficiaries were asked to choose all corresponding answers and then pick the most appropriate one. The task of choosing one among many answers was difficult for many beneficiaries. Also, most of them also found it hard to fill the "other" field. Lastly, the vast majority needed further explanation to distinguish accessibility features (already installed/additional applications and speech-to-text/voice messages).

SJOG recorded several challenges that pertain to ethics approval process. Specifically, seeking collaboration with people with disabilities to co-design the survey tool was not possible before the granting of the ethics approval by the Ethics Committee. This caused significant delays and gaps in the process as well as hindered the participation of people with disabilities as equal members of the research team. Further, the amount of additional documentation, time and resources required for an anonymous survey on a rather non-sensitive issue did not align with the principle of proportionality and placed an undue burden particularly on seeking the participation of people with disabilities in the research. Finally, the need to bring in six additional people to support the ethics application process, including two research assistants, research supervisor, data analyst, Data Protection Officer, Service Sponsor, Director and co-researcher, significantly increased the time and resources needed to carry out the research activity.

AIAS, ATEMPO and **FJC**, had no notable challenges to report, regarding the conduct of the survey.

3.2. Survey Findings

3.2.1. Demographics and Background

ATEMPO and MARGARITA had 10 participants each, while AIAS had 14 and SJOG had 18 participants. All organizations managed to keep a rather balanced participation of male and female participants. AIAS had participants from 18 years old to more than 50 years old. ATEMPO had the youngest participants, from under 18 years old (one person) to 29 years old. SJOG had participants from 18 to older than 50 years old, whereas MARGARITA had participants from under 18 (one person) to 35 years old. FJC had 6 participants, from 18 to 25 years old. In terms of participants' educational background, all participants from MARGARITA referred to MARGARITA as the special vocational training school they were currently attending. Regarding AIAS, whose participants are from 18 to older than 50 years old, most of the respondents (71,4%) reported to have finished the equivalent of high school and had attended mainstream education with support from a special educator (85,7%). Participants from ATEMPO reported various levels and types of school, starting from primary school. All of the ATEMPO participants attended the public school system. Seven of them attended a special unit at the mainstream school, three of them attended a special vocational school for PwID, and one of them attended a typical vocational school but did not complete their education. At the time of the survey, they were all working at ATEMPO, which is considered a qualification training center for inclusive education and career.

Participants at SJOG similarly indicated they had attended a variety of levels and types of schools including attendance of special schools for seven of them. In particular, half of the participants had finished school at 18 and 3% got to QQI level 3. Although there were responses regarding university and DIT, it is believed that these were errors as participants did not complete national qualifications at these institutions. On the other hand, all six participants from FJC participated in an educational program for transition to adult life. At AIAS, 12/14 reported that they attended mainstream school with a student support assistant. At ATEMPO, 7/10 reported that they had attended a special unit/classroom/resource Class in the mainstream school. MARGARITA recorded the difficulty faced by the participants to calculate the years in each school they had attended, and most of the participants (6/10) understood that they had to answer in relation to the school they had attended before MARGARITA.

Regarding the issue of support for communication, 93% of AIAS respondents stated that they do not need any support for communication. At ATEMPO, 2/7 participants replied that they need such support. Participants from MARGARITA assumed the question referred to whether they needed support when they communicate through digital applications/sites and at SJOG, almost 63% replied that they do need support for communication, whereas some of them replied that they were not sure (an option differentiated in the SJOG's survey tool). Regarding FJC, 2/6 participants reported that they need support for communication, including visual support.

In terms of their preferences for learning new things, AIAS recorded that almost 50% of the participants preferred to learn new things with the support of a trainer. MARGARITA's participants treated this question as taking only one answer, and most chose the selection associated with having a trainer showing them how to do something. At SJOG, when asked how they like to learn new things, the top response was with "using videos with people like me" followed by general videos and face to face with keyworkers (an option differentiated in SJOG's survey tool) being the third highest selection.

3.2.2 Technology Devices

AIAS recorded that almost half of the respondents (six of them) reported their use of personal computer or smartphone to access digital information. This was not surprising, as personal computers are available in daily centers frequented by PwID. On the other hand, nine out of ten trainees from ATEMPO reported to have a smartphone with internet connection, six of them using tablets/iPads to connect, five of them having a personal computer, and four of them owning a notebook. All participants, even those using multiple devices, tend to use their smartphones most of the time. SJOG reported that 89% of the

participants used technology and 94% used the internet (since some of them use the internet on their television and do not consider their TV as technology) with 42% using smartphones, 24% using tablets, and 18% using laptops. At FJC, participants use mainly their mobile phones to access the internet, and in some cases, they also use tablets or computers.

3.2.3. Access to Technology and Accessibility

At AIAS, all of the respondents but two reported that they do not use any assistive technology solution. At ATEMPO, five of the participants used accessibility functions that their device already has, four of them referred to the speech-to-text function, whereas three reported no use of any assistive technology. It is noted that three participants in ATEMPO also had motor disabilities. All of MARGARITAS participants needed further explanation regarding the concept of accessibility functions installed. At SJOG, 44% of the participants used the built-in accessibility features. As SJOG notes, this shows a gap in the knowledge of the group and indicates the need for the creation of learning resources to support people in finding the accessibility features. The top skill the respondents at SJOG, as reported by them, was to take their own photos, followed by watching videos and sending messages. This was a very interesting discovery which may lead to a shift in roles for the content creation within the pilot site in this organization. At FJC, 4/6 participants reported to have literacy skills that do not require the use of accessibility option. Regarding the other two, one of them needed visual support, and used accessibility features related to text size. Also, some of them used video tutorials to learn how to use the applications they were interested in.

3.2.4. Use of the Social Media, the Internet and Message Exchange Applications

At AIAS, with reference to use of internet, social media and communication tools by persons with intellectual disabilities, most respondents (65%) reported using them all. ATEMPO recorded that all their participants regularly used the internet. Regarding MARGARITA, only one person reported not using social media. At SJOG, 61% of the users used social media, and 89% used messaging applications.

When asked which social media they use, most of AIAS participants (61,5%) reported YouTube and WhatsApp, followed by Facebook (53,8%). It is noteworthy that no one selected a more recent application of social media, such as Viber, Tik-Tok, and Snapchat, or more specialized applications such as LinkedIn (work related) or Pinterest (image related). All participants from ATEMPO indicated they used Facebook and YouTube. Nine of them used Instagram and WhatsApp, seven participants used TikTok and six of them used Snapchat. All of them used additional messenger services like Telegram and

Signal. At MARGARITA, all the participants mentioned using YouTube. However, not all of them had an account on YouTube, and nobody used YouTube as a means of communication with other people. There was no reporting of LinkedIn and Twitter use. One of the participants, when they heard the name and saw the logo of Snapchat, Pinterest, Twitter and LinkedIn, exclaimed in surprise that they had not heard of these names before. This is potentially indicative of the limited knowledge of social media among the less independent participants.

At SJOG, the most popular social media and messaging apps were What's App, You Tube and Facebook /Ticktock with equal scores. The majority of the respondents used social media to listen to music and watch videos, and in descending preference to talk to people, play games or when they were bored.

At FJC, respondents used different applications and/or social networks. There was absence of professional social networks (LinkedIn), and this might be due to the fact that participants were too young and may not have had yet experiences regarding vocational life. Respondents also indicated that they generally use the text format to communicate on social networks, as well as images.

In terms of the accessing the content provided in social media and the internet at large, 29% of participants at AIAS declared they preferred to receive some external help (e.g., educators/friends/family) while accessing the internet, while another 29% found the presence of images useful. Difficulty in using internet and/or social media, due to the lack of training, was faced by 36% of respondents. Barriers to the use of digital technologies were identified regarding the access to the tool/application, including the creation of an account (67%), the log-in (67%) as well as the uploading/downloading of materials (56%). This is quite in accordance with the results of the literature review (REFS??). Importantly, actions such as searching for something (60%) and posting something online (60%) were considered easy to do. All the respondents using the internet declared they liked to watch videos that others create.

At ATEMPO, seven of the participants wished the Internet had more videos that showed how things work. Six people thought that creating an account online was the easiest task, while the same number thought that this was the most difficult task, which would imply that at least one person gave two conflicting answers for the same question. Concerning passive/active use of social media, nine of them liked to watch videos that others upload, but also seven liked to create and upload their own videos. Two of them indicated they needed help creating and uploading their own social-media content.

At MARGARITA, 3 out of 10 participants would like more pictures in social media so that it could be easier for them to understand the content. Some participants (2/10) indicated they preferred a bigger font, while some others (2/10) reported they would benefit from watching a video that showed how the application/site works. Half of the participants (5/10) found it easier to read words and images to understand concepts. This result is not surprising, since beneficiaries at MARGARITA use easy-to-read educational material to learn new concepts and bridge old and new information and therefore are more familiar with written texts. One participant responded that everything was quite easy when using social media and the internet, while three participants expressed low confidence to navigate and use social media without someone supporting and explaining information to them. Searching for information was considered the easiest function when using social media, for almost all the participants. This finding was quite expected, since searching for information on several topics is in the daily routine of all participants. The most difficult part for most respondents (8/10) was to remember the piece of information that was needed for the creation of an account, while for others (4/10) it was hard to remember information (e.g., passwords) to log-in. Regarding downloading, a participant stated that “it’s hard to download, because I don’t know from which site to do it”.

At SJOG, the top change participants would like to see on the internet would be the style and type of words. The next preference was for websites/applications that would read to users (text-to-speech) and the third was related to the use of more images. Regarding voice messages, participants found these very helpful. If the platform could support an audio-guide, participants stated this would be useful navigating it. This option was followed by text and images together and then text-to-speech. With regards to which were easy and difficult tasks online easy items including (in order) searching, downloading and using Emoji whereas the difficult task list started with the creation of an account and leaving comments with the use of Emoji. Downloading also featured on the list of difficulties. The numbers were low on all the options for the list in both easy and difficult tasks on the internet, so resources covering all are important competencies the participants should be able to demonstrate and will need to be taken into account in the design of the learning content.

3.2.5. Uses of Technology

Concerning the use of technologies, the majority of AIAS participants reported that they used social media (90%) as well as generally the internet (80%) to listen to music and watch music videos. The pattern was the same at ATEMPO, with most of the participants using the internet to find information

and to be entertained (movies/music), to learn new things, and to communicate. Two of them also used it for online shopping activities.

Most participants at MARGARITA (9/10) stated that they used the internet in order to find information (mostly during their time at MARGARITA) and communicate with friends and family (mostly when they are at home). Their top choices included also watching movies and listening to music. One participant added the use of the internet to search for the news, while another participant mentioned navigation through Google Maps and access to recipes online. Given that only a few beneficiaries have access to credit cards and know how to pay online for goods, it was not an unexpected finding that only 2/10 participants made online payments for products.

At SJOG, top reasons for using the internet were to find Information, watch videos, explore new things and learn new things. In terms of time devoted, 35% of the participants replied that they believed they use the internet too much, and 17% replied that they were unsure whether they use the social media too much. More participants at AIAS started using social media (66,7%) during the pandemic. On the other hand, in ATEMPO, only one of the participants started using social media during the pandemic and 72% of the participants at SJOG used them pre-Covid-19 while all the participants reported using social media for one hour or more within the day.

With regards to the mode of communication, 75% of respondents at AIAS reported using voice message, and 62,5% using pictures. Participants at MARGARITA reported using text messages more than voice messages. This finding might be explained when considering the use of auto-correction that helped users be more fluent in text messages. At SJOG, 89% of participants indicated they used messaging applications. The top three ways the respondents used for that purpose were: first the keyboard, second making voice calls on the messaging applications, and third sending and receiving voice messages.

At FJC, generally, the respondents used the keyboard as a method of text input, the use of which is typical. Some respondents also used speech-to-text. Also, high level of use is reported regarding video calls and in the use of emoticons.

In terms of the reasons for using social media, at AIAS, 70% of the participants used them to communicate with people they already knew. It is also noteworthy that 60% of them declared that they used the internet to learn new things. In addition, the target group used social media for entertainment purposes (music and music videos), for informing themselves about the news in the world, and when

there were no other activities available for them (probably meaning when they were feeling bored). Six of them used social media in order to communicate with people they already knew and with similar interests. It is rather interesting to notice that five of them used social media to meet new people in person, something that PwID do less than people without ID (as reported in the literature review). Further, it was reported that the daily use of social media by the participants was less than an hour a day (66,7%).

At MARGARITA, the use of social media for 9/10 participants is intertwined with communicating with people with whom they shared common interests. Only one participant mentioned that social media could be used to know and meet new people in person.

At AIAS, half of the respondents stated that they felt safe using social media and the internet, with the help of educators or external persons that could provide assistance when something strange happened. At ATEMPO, four of ten trainees claimed that when using social media, they only felt safe “sometimes”. At MARGARITA, most participants (7/10) felt safe when using social media. At SJOG, only 52% of respondents felt safe online, with 35% reporting only sometimes feeling safe.

At AIAS, no one reported to have received training in the use of social media. At MARGARITA, when asked about what they find most helpful when using social media, most answers related to discussing with someone trustworthy, and training on internet safety. The least frequent answers had to do with an active presence and actions of others during the use (e.g., someone else doing things with them, family filters).

In ATEMPO, only seven of them reported having someone to ask when something strange happened on social media, and only six indicated they had received education about safety in social media. Only seven of the participants reported having discussions about online safety at ATEMPO. It is important to note that this could also be due to the fact that three of the trainees of the target group had only been beneficiaries at ATEMPO since the beginning of this year/ latest this summer, thus, they had not participated in internet safety modules until the time of survey completion.

Based on participants’ responses at ATEMPO, it seems that all their trainees might have had negative experiences while using social media. At MARGARITA, when asked about incidents that had happened to them, 2/10 responded “nothing from those mentioned” which would imply that other incidents have happened to them in the past which were not among the ones listed in the survey. It should be noted

that only one participant responded that at least once they had made fun of others. At SJOG, the online experience was not all positive, with 29% reporting feeling of sadness about something someone said. Also, 17% reported being contacted by a stranger, and 11% feeling embarrassed about something someone said. Regarding FJC, the participants of the survey are participants in a pre-vocational program that provided education for transition to adulthood, and as it is reported, they are not yet independent enough, which could mean that they are potentially exposed to higher risks in relation to the use of technology. However, findings show that one person had felt sad about something that had happened on social media.

Participants at AIAS reported to not have received training regarding the use of social media, and this could probably explain the fact that they didn't know how to block or report someone who would be nasty to them on social media (78%). At ATEMPO it was recorded that one of their trainees did not know how to block someone on social media, which was something that the organization felt they needed to address in their upcoming sessions. At SJOG, 70% of the respondents knew how to block someone, but only 47% knew how to report someone.

Participants across partners do not generally seem to share their disability online. Specifically, at AIAS, most of the respondents (66,7%) reported not talking about their disability on social media and at MARGARITA, the researchers who supported participants with the completion of the survey reported that participants generally felt uncomfortable and somewhat surprised at the question. At ATEMPO, three of them replied that they share their disability on social media. While at SJOG, this amounted to 17% of the participants.

3.3. Conclusions & Recommendations

The data collected in the present survey served as a preliminary investigation of the context in which the RTCN project is taking place and will be used to inform the next activities of the project. The exploratory nature of the survey, as well as the relatively low number of participants (although sufficient for the scope of the project) does not render it representative of the population/stakeholders targeted in the project. In addition, it should be noted that, regarding the selection of participants in the survey, some partners, due to also the nature of the topic, recruited trainees that were already rather active in using digital technology and most of them also used social media. Thus, **the needs of those who may be less competent in using technology may have been taken into account to a lesser extent.** The challenge for subsequent phases of the project will be to ensure higher levels of participation among those who may have the greatest need for support.

Despite these **limitations and the ambiguity of some questions** as noted by some of the participants, the current survey and its findings can be considered a **useful preparatory exercise to inform the project's follow-up activities** in the tasks of WP3 and WP4.

As a general statement, it is important to note that **the beneficiaries of the organizations are interested in digital participation and social media use**, and that even participants who tend to rarely or never use social media, would like to be more active and use them in order to communicate with friends. To enhance this participation, findings on barriers and challenges, access and accessibility needs, safety and protection issues, as well as ethical and rights issues need to be considered in the design of subsequent activities of the project.

One of the main barriers to online learning noted by participants across partners is access and logging-in which is a finding that should be considered for the development of the platform. Barriers to the use of social media and internet seem to be mostly related to **a lack of training of PwID and the need for more accessible content.** Further, given that participants in the survey, to a great extent, declared a preference for content delivered with images and videos, or images with text, instead of communication via only text, it will be important for the participants of the next actions regarding the module of learning content delivered in the e-learning platform, to learn how to find good learning videos/materials on the internet, and how to create their own learning videos, using a peer-to-peer strategy. The use of speech-to-text function could also be useful.

In relation to the latter point, **most of the participants were not familiar with accessibility functions** and thus, it was hard to imagine themselves using such functions. Considering their unfamiliarity and their needs, the consortium has concluded that functions that help them achieve their tasks by engaging in **fewer steps** (e.g., speech-to-text or screen readers that use text-to-speech function) and **functions that support them by showing them what to do** (e.g., videos that show how a platform works) would benefit them as users of the platform. Particularly, these functions would increase their independence, since currently the participants tend to ask someone for help, or they might not get involved at all. On the other hand, asking help from a key worker (as suggested in the research at SJOG), strengthens the case for peer learning materials and peer tutoring.

It should be noted that **all participants had difficulty in comprehending at least one question**, regardless of its easy-to-read form. The results from ATEMPO, in regard to questions concerning functions that participants find the easiest and the most difficult to do when using social media, are somewhat contradictory. This could potentially be attributed to misinterpretation of the questions by at least one participant while filling out the questionnaire. **SJOG, which used a co-design strategy in all of their activities**, ended up with a rather different survey tool, having added options in some questions, or having analyzed differently others. Not all partners had the opportunity to do this, thus, support from a trainer and more time to complete the questionnaire were necessary for many respondents. The consortium realized that many times **ensuring comprehensibility is the be-all and end-all in working with people with intellectual disabilities** and intends to draw special attention to comprehensibility of the instructions in further procedures, as it is only in this way that real self-advocacy is made possible.

Of great importance is the fact that **some participants use more than one device to access the internet and social media** and a lot of them have at least one personal device which is used only by them. This is something that the consortium plans to keep in mind, in order **to give participants the opportunity to personalize their experience** and delve deeper into things they find easy or hard during the use of their device. Based on the survey results it appears that the training of users on using spell checkers, grammar checkers, auto-correction and other helpful resources to support typing text messages and the inclusion of such educational material on the e-learning platform is to be recommended. A problem noted is that **some of the participants did not have internet at home**.

In terms of issues of safety and protection, given that most of the participants used social media in some way, for at least one hour or more within the day, or were eager to learn how to use them, it is

reasonable for the project to have a significant **focus on the safe and accessible use of social media in our content**. Taking into consideration that some participants felt they used social media for too many hours in the day, it is also to be stressed that engaging on social media for a significant amount of time can be harmful for the mental health of the person.

Regarding how the participants perceive their safety in using internet and social media, **not all participants felt confident in using social media**. There was also variation among participants regarding the acceptance of meeting strangers on social media, since, for instance, for participants at MARGARITA it is mostly considered dangerous (putting at risk their personal information), while for participants in ATEMPO this is something that happens, meaning that it might be more easily acceptable. Further, not all the participants knew that if they felt insecure, they could always consult a team of trainers and/ or job coaches. Therefore, **it is important to inform participants that if they have questions or concerns regarding social media use that they share these with a trusted person or professional**. The provision of **training on safety issues for the families** of the participants is also important. Relatives and educators have an important role in supporting and helping in the use of the internet and social media, specifically concerning the undertaking of positive risk taking instead of gatekeeping stance.

Regarding the project, during content creation stage the consortium will need to **explore what can be done to ensure that participants feel safe online**. Further, in many answers provided it appeared that there were **limited possibilities for autonomy**, and it would be beneficial if the content created could address these issues. Lastly, **raising awareness of the negative things that can occur and being honest about the challenges and risks is important**. Hence internet safety modules and handling of negative experiences like cyberbullying and internet trolls as well as protection measures such as knowing how to block someone on social media and how to report inappropriate behavior should be emphasized.

In addition, it should be noted that **trainings should focus on how participants recognize and protect themselves from bad behaviours** (cyber bullying etc.) by for instance, blocking somebody, but as well as on how they recognize when they themselves become the offenders, intentionally or not.

Furthermore, given that most beneficiaries use the internet and social media mostly for their entertainment and their leisure time (e.g., music and movies), it is concluded that it is very important to put **emphasis on supporting them to use the internet in ways that will forward their maturity and independence** (e.g., Google Maps, online payments, online educational videos), **taking into consideration also that not all participants are ready to share their disability online**. This element of

sharing the experience of disability also has a sociocultural aspect to it as contextual characteristics may render this more possible in some contexts rather than in others.

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² Bibliographic references for the observations regarding the summary of the literature review can be found in the corresponding section of the comprehensive literature review report (ANNEX 1) of this deliverable.

Annexes

ANNEX A Literature Review RTCN

ANNEX B Survey Reporting AIAS

ANNEX C Survey Reporting ATEMPO

ANNEX D Survey Reporting MARGARITA

ANNEX E Survey Reporting SJOG

ANNEX F Survey Reporting FJC