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An Interactive Qualifying Project
Submitted to the Faculty of
WORCESTER POLYTECHNIC INSTITUTE
in partial fulfillment of the
requirements for the
degree of Bachelor of Science





Presented to: Professor Robert Kinicki Professor Althea Danielski



Designing a Website to Increase the Accessibility of Romanian

Disability Certificates

An Interactive Qualifying Project

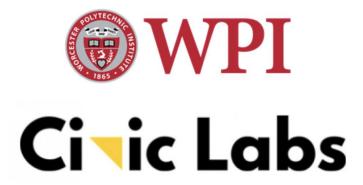
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Report Submitted to: Professor Althea Danielski Professor Robert Kinicki



Abstract

In 2006, Romania started its journey towards inclusion and protection for people with disabilities, but the progress made still needs reform. This project is a collaboration between the WPI project team and Code for Romania, and it proposes a solution in the form of a website that guides Romanians with disabilities who are seeking the financial, social, and legal benefits of a Romanian disability certificate. After conducting surveys and interviews with disabled Romanians and relevant NGOs, the team designed, built, and evaluated a prototype that digitizes the disability certification process for applicants and government employees. The potential benefits of the project to alleviate burdens of the disabled community could be historical for this commonly marginalized population.

Executive Summary

Introduction & Background

Romania has a remarkably low reported percentage of people with disabilities (4%) (ANDPDCA, 2021), however, this low number may be due to the fact that Romanian disability demographics only include persons with a government-issued disability certificate and exclude those without the certificate.

Part of the reason why the number of people with disabilities is unreported is that there is a significant lack of information available on the current protections in place for people with disabilities. This leaves the disabled community without the knowledge of their rights or how to obtain their benefits such as a pension, educational and employment accommodations, benefits and transportation (European Commission, 2019). Once they are aware, applicants find the process to obtain the certificate to be lengthy, with multiple appointments and evaluations, and tangled in bureaucracy. Formalizing the process and steps to obtain a disability certificate and unifying them under one source will promote inclusivity for people with disabilities in Romania by reducing barriers that hinder allocating their rights.

The goal of this project was to collaborate with Civic Labs to propose a digital tool to guide Romanians with disabilities who are seeking a Romanian disability certificate. Civic Labs is a branch of Code for Romania that designs digital solutions for social issues such as

accessibility. The four objectives to achieving the project goal were:

- To identify the challenges Romanians face when seeking a disability certification
- To identify the best practices to present the necessary processes and documents through a digital application
- To design a digital solution to provide guidance for the disability certification process
- To evaluate the effectiveness of their design in reducing the barriers and complications related to seeking a disability certificate.

Methodology

The team first interviewed Romanian NGOs who assist people with disabilities and surveyed people with disabilities. The team created an online survey using Qualtrics in both English and Romanian and distributed it to Romanians with disabilities through email with the help of Civic Labs. The team ultimately collected 38 valid responses. The goal of the survey was to gain data on the experiences of people with disabilities to guide the design of the digital solution. The team used quotes and summary statistics to extract meaningful results from the interviews and surveys.

After analyzing the interview and survey results, the team worked with Civic Labs to design the prototype of a website using Figma, a web-based software used to create and design

user interfaces and prototypes. The team developed user flows, or steps a user takes to complete a task, to then create a series of website screens that present the essential information to complete the process. Additionally, applicants and government workers have the ability to share and review documents. The team then linked the buttons and screens of the web pages together to create a functioning prototype on Figma to exhibit the possible functionalities of the designed website.

The team then conducted three user testing sessions with NGO representatives to obtain feedback on the progress of the prototype, as well as suggestions for future implementation. A team member performed a demonstration of the prototype and asked the user-testing participants to provide feedback on the intuitiveness of the prototype, the accuracy of the information provided, and how helpful the website would be to either themselves or the people they assist.

Findings

Through literature review, interviews with NGOs and surveys with people with disabilities, the team uncovered the challenges inhibiting applicants from progressing through and completing the disability certification process. The results from their research revealed five major findings:

1. Applicants for the disability certificate are confused about the process.

Many of the responses from interviews and surveys were related to the overall confusion applicants have about the certification process. Interview responses emphasized that there were insufficient definitions for medical and legal terminology found in online resources regarding the process. Without clarity, the applicant lacks the necessary understanding of the application process due to the difficult language. The responses also revealed that at times, social workers and online resources would supply incorrect information due to their own lack of knowledge of the process. Additionally, there is a lack of a system to centralize and synchronize the information on the process. Figure E.1 indicates that about 85% of survey respondents had some difficulty finding information online.

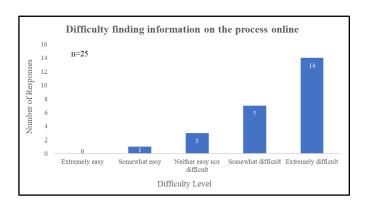


Figure E.1 Difficulty finding online process information for Romanians with disabilities (Appendix I: Block 4, Q2)

2. The management of documents creates disruptions in making progress.

The interview and survey responses also indicated that the management of documents created disruptions in making progress through

the certification steps. The team's background research and literature review determined that the overall process is complex, especially because there is no source that provides the list of documents that is necessary for an applicant. During the interviews, participants told stories regarding missing documents and the large amount of paperwork for an application. Missing documents could add months to the process as an applicant would need to schedule several trips for various appointments and evaluations to obtain and submit the necessary documents.

3. The government manages the certification process inadequately.

A commonly recurring theme found in the responses was that the government manages the certification process inadequately. In the survey, the team asked respondents an openended question, "What complications with the process did you encounter?" (*Appendix I: Block 4, Q5*). Figure E.2 identifies that bureaucracy was the most prominent impediment to the application process.

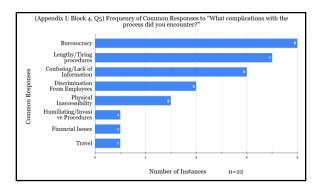


Figure E.2 Frequency of common responses to "What complications with the process did you encounter?"

4. A website is a more suitable solution than a mobile app.

The team also decided that their digital solution would be a website rather than a mobile app. Through the survey results from 35 respondents, 43% chose a website as being the more familiar digital format to use. The collaborators, however, noted that respondents may have assumed that a mobile app meant utilizing a website on a mobile device. It was also mentioned during interviews that rural applicants may not have any personal technological devices. However, those applicants could access a website from a computer at their nearest social worker's office.

5. Stakeholders need a website to manage documents and application progress.

Additionally, the interview and survey responses often suggested that stakeholders needed a website to manage documents and their application progress. Survey and interview responses revealed that digitizing and centralizing the process would make the application much easier. A website that has all the information and documents would ease the number of trips an applicant would need to take.

Website

The website prototype was guided by the results and findings from the methodology, with the simulated capability of digitizing the application process, for both applicants and social workers. The website consisted of three sections: A set of public pages that visitors could view, a

set of pages that account-holding applicants could view, and a set of pages for social workers to view. As the pinnacle of the team's deliverables, the prototype was the culmination of all work, research, and time that the team dedicated to the project.

When the team asked Romanians what would make the process easier during interviews and surveys, the most common response was digitalization. Thus, the team designed a website that would allow Romanian applicants and social workers to complete and manage the entire process in a single unified and digital location. Figures E.3 to E.6 show some of the key features of the prototype such as:

- Centralizing information on the Romanian disability certificate for visitors (*Figure E.3*)
- Preparing a personalized list of steps for visitors to obtain the certificate (*Figure* E.4)
- Providing applicants the ability to apply for the disability certificate online (Figure E.5)
- Providing social workers the ability to review application submissions (*Figure* E.6)

The government can mitigate or eradicate many of the issues the team's research revealed by digitizing the process through a website. This includes applicants needing to wait months to schedule appointments, travel hardships due to financial standing or mobility impairments, as well as bureaucracy.

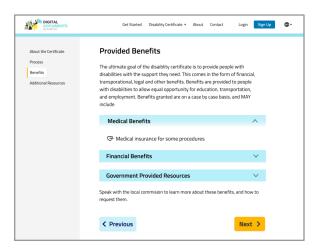


Figure E.3 Certificate Provided Benefits page

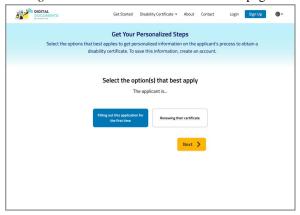


Figure E.4 Decision Tree. Visitors select options that best apply to them to receive their personalized list of steps.

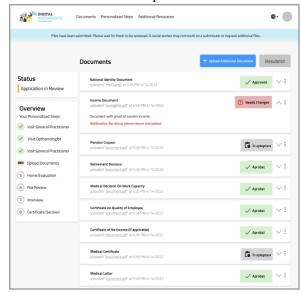


Figure E.5 Applicant Document Overview page

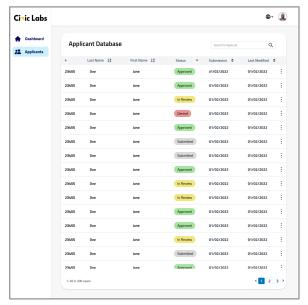


Figure E.6 Social Worker's Applicant Database page

Final Recommendations and Conclusions

The team developed the prototype with the point of view that the current system is too inefficient, too analog, and too difficult. By moving the process online, applicants are free to review and submit their documents in a much more streamlined and efficient manner. Although the user testers provided much positive feedback, the three NGO representatives presented areas of improvement on the design, which the team is proposing as final recommendations for future advancement.

These recommendations include providing a digital version of the disability certificate, monitoring any changes occurring to the certification process to keep the prototype up to date, and making the platform accessible to every stakeholder.

In collaboration with Code for Romania: Civic Labs, the project team accomplished their goal of proposing a digital tool to guide Romanians with disabilities who are seeking a Romanian disability certificate. While the issues surrounding the navigation of the certificate process are yet numerous, the project team's proposed solution is a large stride toward making the certificate more accessible for any person with disabilities.

The team laid the groundwork for Civic Labs to continue the project, and to create a revolutionary impact on Romanians who wish to obtain their certificate. The work the team and Civic Labs have completed thus far are the first steps in building a long-lasting, positive impact on Romanians with disabilities for years to come. The team is hopeful that the implementation of this platform will promote inclusivity and better support and enhance the lives of Romanians with disabilities.

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List of Acronyms

AMAis Asociația Metodelor Alternative de Integrare Socială (Association of

Alternative Methods of Social Integration)

ANDPDCA Romanian National Authority for the Rights of Persons with Disabilities

AT Assistive Technology

CDC Center for Disease Control

CEPAH Commission for the Assessment of Adults with Disabilities

CRJ Centrul de Resurse Juridice (Center for Legal Resources)

CRPD The Convention of the Rights of Persons with Disabilities

DGASPC Directorate General of Social Assistance and Child Protection

GDPR General Data Protection Regulation

GP General Practitioner

IQP Interactive Qualifying Project

NGO Non-governmental Organization

RON Romanian new leu (Romanian currency)

SECC Complex Assessment Service for Children

SECPAH Complex Assessment Service for Adults with Disabilities Public

SPAS Social Assistance Service

UN United Nations

UX User Experience

W3C World Wide Web Consortium

WAI Web Accessibility Initiative

WCAG Web Content Accessibility Guidelines

WPI Worcester Polytechnic Institute

1.0 Introduction

The European Commission claims that 15% of the global population has a disability (European Commission, 2019). People with disabilities face various challenges in everyday life, resulting in the necessity for governments to put in place additional rights and protections. The Romanian government has initiated providing these necessities by establishing a government-issued disability certificate (handicap certificate). The advantages of obtaining this certificate are numerous, including financial assistance, employment benefits and a government pension (Romanian Law, 2006). However, the major challenge for certificate applicants is navigating the certification process.

Statistically, Romania has a remarkably low reported percentage of people with disabilities (4%) (ANDPDCA, 2021) compared to the United States of America, which stands at 26% (CDC, 2019). Romanian disability data and demographics only include those with a government-issued disability certificate and exclude those without the certificate, reflecting bias and creating inaccurate data.

There is a significant lack of information on the current protections in place for people with disabilities in Romania, which leads them to not knowing all their rights or how to obtain their benefits in Romania (European Commission, 2019). Additionally, disabled applicants and the people who assist them are often frustrated and confused as there is no source that formalizes the information regarding the process to obtain a certificate, government sites containing some information are inaccessible to users, and the overall process is time-consuming and bureaucratic. Formalizing the process and steps to obtain a disability certificate under one source will promote inclusivity for people with disabilities in Romania by reducing barriers that prevent them from obtaining their rights.

The goal of this project was to collaborate with Civic Labs to propose a digital tool to guide Romanians with disabilities who are seeking a Romanian disability certificate. The team established four objectives to achieve this goal:

- 1. To identify the challenges Romanians face when seeking a disability certificate.
- 2. To identify the best practices to present the necessary processes and documents through a digital application.

- 3. To design a digital solution to provide necessary guidance for the disability certification process.
- 4. To evaluate the effectiveness of our design in reducing barriers and complications related to seeking a disability certificate.

The researchers accomplished the first two objectives through interviews with NGOs, surveys with Romanians with disabilities, and analysis of the interview and survey results. The team recognized the importance of listening to the voices of Romanians with disabilities to understand the most effective methods for informing on the certification process. The team accomplished objective three by developing wireframes, which are a rough schematic of the necessary screens, gaining collaborator and advisor approval, and implementing the prototype into Figma, a web-based, collaborative software used to create prototypes and design user interfaces. The team completed their fourth objective by conducting user studies with NGOs and analyzing the feedback and results.

The project team discovered many major findings that influenced and assisted the creation and development of their final deliverables. Civic Labs plans to finalize the team's finished work, which provides assistance as well as reduces the burdens of Romanians with disabilities when obtaining a disability certificate. While the state of accessibility in Romania can always be improved, the team's ultimate product has the potential to create a significant impact and benefit the disabled community.

2.0 Background

This chapter presents important background information on topics pertinent to the project that the team found when researching the Romanian disability certification process. In particular, the chapter explores the certification benefits, procedures, requirements, and complications. In addition, this chapter introduces the team's collaborator, Code for Romania: Civic Labs, and the software that they use to create their prototypes. The team used the research that this chapter examines when collaborating with Civic Labs to fulfill the project goal of proposing a digital tool to guide Romanians with disabilities who are seeking a Romanian disability certificate.

Romania has long been bereft of accessibility for people with disabilities, who represent a stigmatized portion of the Romanian populace (*Disability and Poverty in Romania*, 2022). Though the government has passed laws to provide benefits to their disabled citizens, they have marred their attempts at inclusivity by creating an onerous registration system for a disability certificate (Law 448/2006 "Regarding the protection and promotion of the rights of disabled persons", 2006). Hurjui and Hurjui (2018) assert that the certificate is tangled in bureaucracy and hostility, and many of the intended recipients do not make it through the process to receive their benefits. Many do not even start the process at all (Baciu & Lazar, 2017). Though the government has stagnated in the progress of accessibility laws, there are still NGOs, including our collaborator Code for Romania: Civic Labs, who fight for awareness and recognition of the protection and rights of people with disabilities.

2.1 Romanian Disability Certification

With Romania's introduction into the European Union in 2007, policymakers had to quickly adopt European regulations regarding the rights of people with disabilities and establish institutions to support them. The Convention on the Rights of Persons with Disabilities (CRPD) by the United Nations is the first international human rights instrument to "promote, protect, and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity" (CRPD, 2006). In Romania, the responsible body to implement the CRPD framework is the National Authority for the Rights of

Persons with Disabilities, Children, and Adoptions under the Ministry of Labor and Social Protection. The Romanian Government has made an effort to support those with disabilities through the issuance of a government-issued handicap or disability certificate. The Romanian National Strategy on the Social Protection, Integration, and Inclusion of People with Disabilities, defines the word handicap as "the loss or the limitation of a person's chances to take part in the community life at an equivalent level as the other members. It describes the interaction between the person and the environment" (National strategy on the social protection, integration, and inclusion of people with disabilities, 2006, p. 6). The Romanian government uses this definition to grant people with disabilities access to government benefits, but society now considers the word 'handicap' to be discriminatory and offensive, as the connotation behind the word brings "prejudice to human dignity." According to the Romanian National Strategy, future administrative, legislative, and official acts should avoid using this language (National Strategy..., 2006). More recent legislation, such as Law 448, uses the terms disability and handicap interchangeably. This results in confusion about the language within the legislation, as the two words have different meanings and connotations.

In Romanian law no. 448/2006 "Regarding the protection and promotion of the rights of disabled persons", articles 85 and 89 state that a person must obtain a disability certificate to have legal recognition as a person with disabilities. This law grants the person access to various facilities, financial benefits, and employment opportunities. The process of obtaining the certificate is complex and time-consuming and subjects the recipient to the social stigmas around having a disability, as well as potential discrimination (Baciu & Lazar, 2017).

2.1.1 Benefits of the Romanian Disability Certificate

The legal benefits of obtaining a Romanian disability certificate include access to a government pension, legal assistance, tax benefits, employment benefits, and protections assuring the access to accommodations sufficient to allow the person with disabilities equal opportunities and inclusivity (Romanian Law, 2006). Additional benefits include medical insurance for certain services free of charge (Baciu & Lazar, 2017). The government pension involves two parts: an "indemnity," and a "complimentary personal budget." The government distributes the pension, also referred to as the disability allowance, to Romanians with the certificate. The disability

pensions range from a mere Romanian new leu (RON) 30 a month (\$6.81) for people with moderate disabilities to 207 RON a month (\$47.01) for people with severe disabilities. In addition to financial assistance, the government grants people with disabilities in Romania dramatic tax reductions. The government can exempt people with a severe or accentuated disability from income tax, property tax, automotive tax, and several smaller tax benefits (Romanian Law, 2006). Employment benefits may include professional formation courses, reasonable accommodations for the workplace, reduced working hours, and free counseling from a labor mediation counselor (Romanian Law, 2006).

The Romanian Government guarantees free education for all Romanians, irrespective of ability (Romanian Const. chap. II. art. XXXII). The government therefore must provide accommodations on a case-by-case basis to ensure that all Romanians with disabilities "shall have a free and equal access to any form of education, irrespective of their age, according to the disability type, degree and the educational needs thereof" (Romanian Law, 2006). The ownership of a disability certificate enables a Romanian to seek the necessary educational accommodations that they need, guaranteed at the expense of the government.

Transportation benefits are another advantage to owning a disability certificate. Law 448/2006 allocates funding for Romanians with mobility issues, granting them access to specific transportation adapted to their needs, free tickets for urban land transportation, and 12 free interurban transportation tickets per annum.

Gaining access to the benefits the certificate provides is highly advantageous for people with disabilities in Romania. The largest barrier to acquiring benefits is the unnecessary challenges and difficulties of navigating the process to obtain the certificate. The process makes it difficult to achieve disability status and receive benefits, but for disabled Romanians who receive the certificate, the benefits dramatically improve their quality of life (Ciobanu, 2021).

2.1.2 Requirements to Obtain the Certificate

Under Law 448/2006, it is necessary for social insurance evaluators from the County House of Public Pensions to classify the type and severity of the disability, prior to proceeding with the remainder of the process. Romanian legislation defines people with disabilities as "people with

long-term physical, mental, intellectual or sensorial deficiency which, in interaction with various barriers, may hinder the full and actual participation of the people in society, under conditions of equality with the others" (Romanian Legislation, Law 292/2011).

Evaluators only classify the type of disability if the diagnosed disability is also located in the medical-psychosocial criteria, approved by Order no. 762/1992/2007. The types of disabilities which fit the criteria are physical, somatic, auditory, visual, mental, neuropsychic, associated, HIV/AIDS, rare diseases, and deaf-blindness. The government further divides disability into levels of severity (severe, accentuated, and moderate) to determine the appropriate level of assistance required to support each person. Law 448/2006, which introduces the disability certificate, does not define the levels of disability (Law 448), and neither do any government websites (ANDPDCA). After workers at the Social Insurance County Offices classify the type and degree of disability, there is a detailed process to grant a disability certificate, which the person with disabilities must renew yearly (Stamatin, 2010).

2.1.3 Process to Obtain the Certificate

The process for obtaining the disability certificate in Romania is extensive and elaborate. The applicant starts by visiting their general practitioner (GP), or family doctor, who refers them to a specialist for their disability. With the referral, the specialist performs an evaluation and provides the applicant with more documents. The applicant then returns to their GP to obtain their full medical history. The applicant then visits their local city hall to apply for a social evaluation at the Social Assistance Service (SPAS). At the city hall, the government worker informs the applicant of the other documents they need to obtain to be eligible for a social evaluation. These include various identity and income papers of themselves and those that live with them, and additional medical documents. After the applicant returns to City Hall to submit this set of documents, and the SPAS worker approves them, the applicant schedules a home evaluation. At the home evaluation, the SPAS provides the applicant with another document. This is the final step before the complex assessment, which occurs at the county level Directorate General of Social Assistance and Child Protection (DGASPC) (World Bank, 2021).

The person going through the certification process applies to undergo a multidimensional assessment with professionals at the DGASPC called Complex Assessment Service for Adults

with Disabilities Public (SECPAH), or for children, Complex Assessment Service for Children (SECC). To be examined by SECPAH or SECC, the applicant must submit a form confirming the applicant allows the Directorate General of Social Assistance and Child Protection (DGASPC) of their local county to process their personal information. Additionally, the applicant must provide the medical letters from their primary doctor and the doctor specializing in their disability (DGASPC, 2018). The primary care doctor letter includes the current status of the disability, and the specialist letter should cover the diagnosis and history of the disability. The applicant must also submit other administrative documents, including an identity card, income documents, and a certificate if the applicant is in a disability or elderly care center. The professionals examine and estimate the person's development, integration, and social inclusion and then interpret the results and ultimately make a decision to legally grant or reject the type and severity of the disability (DGASPC, 2018). Currently, the applicant can access the complex assessment in a remote setting due to the COVID-19 pandemic. From the evaluation, the specialists of the Complex Assessment Service for Adults compile the results into an official report (DGASPC, 2018).

After receiving the official report from the DGASPC, the applicant and/or the person assisting the applicant gathers all previously mentioned documents and possibly more to obtain the certificate. The applicant takes their collective file of documents and returns to the registration office at their local city hall to apply for an interview conducted by the Commission for the Assessment of Adults with Disabilities (CEPAH). If CEPAH approves the applicant's submission for a certificate, they will inform the applicant of their rights and the procedure to obtain their newly-granted benefits. Applicants with appeals or complaints on the process or results of the process can take the respective institution to court. Figure 2.1 showcases the disability certification process in Romania, including the steps within the process, and common documents necessary for the final file submission. The yellow boxes represent the primary steps within the process, and the gray box lists common documents needed for the complex assessment step (World Bank, 2021).

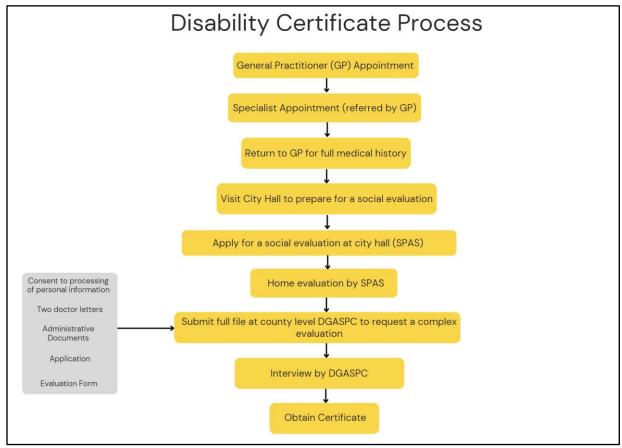


Figure 2.1 Disability certificate process in Romania

2.1.4 Complications and Barriers of Obtaining the Certificate

Despite the benefits of obtaining a certificate, many people with disabilities are hesitant to get the formal recognition of their disability. The entities who permit the issuance of the certificate only take into consideration the medical files and doctors' recommendations, and do not consider the environmental influences which increase the likelihood of a person with impairments having a reduced access to things like education, job opportunities or transportation (Stamatin, 2010).

Romania further struggles with the social perception of people with disabilities. People with impairments who enter doctors' offices often encounter staff members acting authoritatively or in a condescending manner (Baciu & Lazar, 2017). Parents of children who doctors diagnose with a disability claim that medical specialists describe their children's condition as irreversible

and a family burden (Hurjui & Hurjui, 2018). Additionally, doctors often treat their beneficiaries as inferiors, rather than educating them on their rights and possible benefits (Baciu & Lazar, 2017).

There is also poor availability of information on the rights and benefits of people with disabilities. Much of the information people registering for certificates need is located across several different organizations and the information is not formalized under one source. There is information regarding the process on government sites, however many of these websites are inaccessible to users. According to the National Institute for Research and Development in Informatics in Bucharest and BAUM Engineering's study, Romanian municipal websites are not compliant with international standards, including the World Wide Web Consortium's web content accessibility 2.0 guidelines (WCAG), and web accessibility initiative (WAI). The study looked at municipal websites in the 60 largest cities in Romania and evaluated each one against the WCAG 2.0 guidelines. The results showed that on average each website had more than 20 violations per page, an abnormally high number for a webpage (Pribeanu et al., 2012). Each Romanian municipality administers disability certificates, therefore municipal websites need to be accessible for all users.

The lack of clarity garners substantial confusion for applicants and their families regarding the rights and protections people with disabilities have under the legislation. To gain more clarity on the situation, people with disabilities will often seek the advice of others who have previous experience with the process (Baciu & Lazar, 2017). The complications and barriers of obtaining the certificate create the appearance that it is more beneficial, or at least convenient to remain unrecognized as having disabilities. As a result, some Romanians do not undertake the process to obtain the certificate.

2.2 Romanian Demographics on Disability

The Romanian Ministry of Labor and Social Protection collects data on individuals with disabilities in Romania. Data from the Romanian National Authority for the Rights of Persons with Disabilities (ANDPDCA), which is a subset of the Romanian Ministry of Labor and Social Protection, indicates that as of September of 2021 there were 866,390 people with disabilities in Romania, which amounts to approximately 4.5% of the population (ANDPDCA, 2021). Comparatively, the CDC reports that 26% of adults in the United States of America have a type of

disability (CDC, 2019). However, ANDPDCA's data includes only those with a government-issued disability certificate, which does not reflect the true number of individuals living with disabilities. Therefore, excluding those without a disability certificate systematically biases the data. This population includes those who refuse the certificate, do not know the legal rights which the certificate provides them, are older than retirement age, who became disabled after an accident, live in hospitals, or are homeless (Stamatin, 2010). Figure 2.2 presents the ANDPDCA disability demographics by type of disability for adults and children.

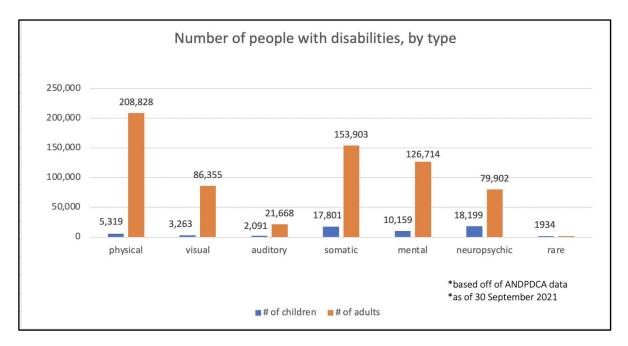


Figure 2.2 Number of people with disabilities, by type (ANDPDCA, 2021)

ANDPDCA reports that physical impairments are the most common impairment for Romanians (25% of the disabled population), followed by somatic (20%) and then mental disorders (16%). Somatic disorders include cardiovascular, respiratory, or endocrine diseases, neuropsychic disorders include epilepsy and stroke, and mental disorders include depression and schizophrenia (Mirică & Soare, 2020).

2.3 Code for Romania: Civic Labs

The significant issues regarding inclusivity for people with disabilities in Romania stem from the government historically failing to adequately prioritize this vulnerable group. In response, volunteers have formed several organizations to promote awareness and implement improvements surrounding the related issues. The team's collaborator, Code for Romania, is an

independent, non-governmental organization that addresses a wide variety of social problems within the Romanian community, using technological solutions. Civic Labs (https://code4.ro/ro/civic-labs), a branch within Code for Romania, works with ING Banking and Lidl Romania to design digital solutions related to the education of children, healthcare for all citizens, support for vulnerable groups, protection of the environment, and Romanian community involvement. Overall, Civic Labs works to provide inclusivity for all communities within Romania, including vulnerable groups such as people with disabilities. Its mission is to produce the best technological solution to deliver a "scalable, efficient, and impactful" tool that any user within Romania can access.

Civic Labs operates by solving one problem at a time in order to develop a strong solution, with the ultimate goal of acquiring a sponsor to further implement their design. Furthermore, Civic Labs creates its solutions by doing extensive research, brainstorming, and developing a high-fidelity prototype. The official process that Civic Labs follows for each project is known as "The Civic Labs Mechanism." This includes stakeholder mapping, research, checking the context, finding solutions, documentation of solutions, conditions for adoption, building solutions, and solution management. Civic Labs has pre-made software components that enable their project interfaces to be consistent in aesthetics. After creating, testing, and finalizing the prototype, Civic Labs sends the design to a separate sponsor organization for final development.

Civic Labs uses a web-based software tool called Figma to create their prototypes. Figma is a collaborative application used to design user interfaces and prototypes. Each of Civic Labs' prototypes focus on three user tasks, which are the actions a user may need to do within the application. The prototype then has three flows, or the series of steps included in completing a user task. The goal of the prototype is not to show a full application, but to understand if the solution is intuitive and functional.

2.4 Usability Heuristics

When making products accessible, including digital applications, it may be difficult to determine what useability aspects are most important to consider. When researchers demonstrated that Romanian municipal websites have low accessibility in Section 2.1.4, Pribenau compares websites to international standards such as World Wide Web Consortium's WCAG 2.0

guidelines, and WAI. These guidelines are specific to websites; however, it is important to consider other standards to make accessible products and provide a good user experience.

In 1994, Jakob Nielsen published a set of principles, or heuristics, that professional evaluators could use as criteria to determine a product's usability known as Nielsen Heuristics (Jain, 2015). These usability standards act as a checklist that designers should consider when creating an accessible product. Table 2.1 lists the ten rules of Nielsen Heuristics. User interfaces for websites and mobile apps should aim to follow these principles to provide users with the highest quality experience. When web developers consistently take these standards into consideration, the development process of ensuring product accessibility proceeds much more smoothly.

When creating a digital product, including apps and websites, it is important to consider the target audience to address their needs and concerns. Furthermore, the team utilized having this critical knowledge to design a prototype that is accessible to the largest population within Romania. Additionally, heuristics are beneficial to the team when considering the important aspects of accessibility and usability in ensuring the digital tool is useful and intuitive for all users.

Table 2.1 Nielsen heuristics (Jain, n.d.)

#	Heuristic	Abbreviation	Notes
1	Visibility of system status	Visibility	· The website keeps the user informed about what is going on through constructive, appropriate and timely feedback.
2	Match between the system and the real world	Match	· Language usage, such as terms, phrases, symbols, and concepts, is similar to that used by the users in their day-to-day environment. · Information is arranged in a natural and logical order.
3	User control and freedom	Control	Users control the system. Users can exit the system at any time even when they have made mistakes. There are facilities for Undo and Redo.
4	Consistency and adherence to standards	Consistency	Concepts, words, symbols, situations, or actions refer to the same thing. Common platform standards are followed.
5	Error prevention, specifically prevention usability-related errors	Error	The system is designed in such a way that the users cannot easily make serious usability errors. When a user makes an error, the application gives an appropriate error message.
6	Recognition rather than recall	Recognition	Objects to be manipulated, options for selection, and actions to be taken, are visible. The user does not need to recall information from one part of a dialogue to another. Instructions on how to use the system are visible or easily retrievable whenever appropriate.
7	Flexibility and efficiency of use	Flexibility	The site caters to different levels of users, from novice to experts. Shortcuts or accelerators, unseen by the novice users, are provided to speed up interaction and task completion by frequent users.
8	Aesthetic and minimalism in design	Aesthetics	Site dialogues do not contain irrelevant or rarely needed information, which could distract users as they perform tasks. Displays are simple and multiple page displays are minimized.
9	Recognition, diagnosis, and recovery from errors	Recovery	· Error messages are expressed in plain language. · Error messages indicate precisely what the problem is and give quick, simple, constructive, specific instructions for recovery.
10	Help and documentation	Help	The site has a help facility and other documentation to support the users' needs. The information in these documents is easy to search, focused on the user's task, and lists concrete steps to be carried out to accomplish a task.

2.5 Summary

This chapter reviewed the Romanian handicap certification and demographics, our collaborator Code for Romania, and technology as pertaining to the inclusivity of Romanians with disabilities. The limited social inclusion of people with disabilities in Romania remains a significant issue, stemming from the societal perception that the issue of accessibility is not as serious as it truly is. A primary barrier inhibiting Romanians with disabilities from inclusion is

the process of obtaining a disability certificate. Many people are hesitant to undergo the process to obtain the certificate as it is complex, time-consuming, invasive, and unclear. A comprehensive digital application for Romanians to complete the previously analog process could reduce an arduous, complex, and oppressive burden. The social impact of implementing a digital tool regarding the certification process can increase the inclusivity and the accessibility to rights and benefits for people with disabilities in Romania.

3.0 Methodology

The goal of this project was to collaborate with Civic Labs to propose a digital tool to guide Romanians with disabilities who are seeking a Romanian disability certificate. The team established four objectives to achieve this goal:

- 1. To identify the challenges Romanians face when seeking a disability certificate.
- 2. To identify the best practices to present the necessary processes and documents through a digital application.
- 3. To design a digital solution to provide necessary guidance for the disability certification process.
- 4. To evaluate the effectiveness of our design in reducing barriers and complications related to seeking a disability certificate.

The team of four WPI undergraduates spent seven weeks completing these objectives to fulfill WPI's interactive qualifying project (IQP) requirements. The project team worked in Worcester, Massachusetts from March 14th to May 3rd, 2022, developing their project in collaboration with the organization Code for Romania: Civic Labs, based in Bucharest, Romania.

To create the digital tool, the IQP team carried out various methods addressing each of their objectives. The project approach included reviewing literature, conducting interviews with NGOs, issuing online surveys to Romanians with disabilities, creating a prototype by utilizing Figma, and gaining additional feedback from NGOs on the prototype for future implementation. The team organized this chapter by objective and the subsequent deliverables while providing the details of their associated methods. Figure 3.1 is a graphical outline of the project methods the team used to complete the objectives.

Objectives and Methods Lead to Project Goal

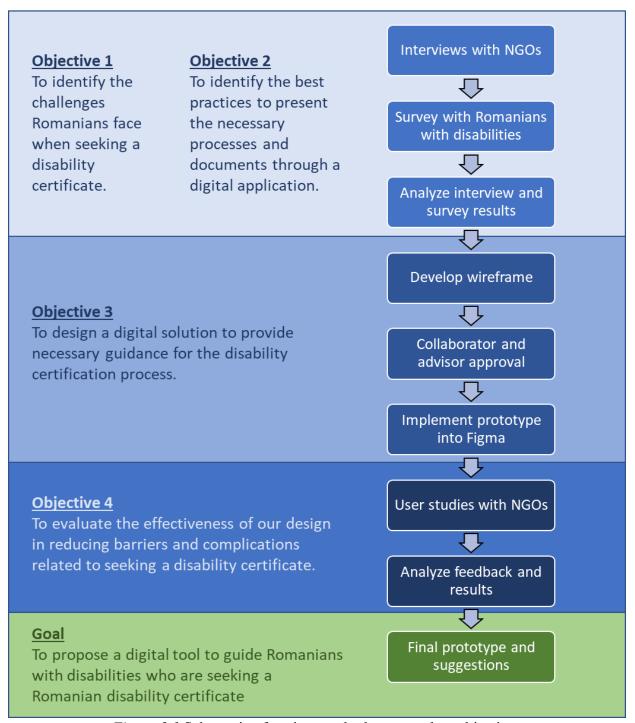


Figure 3.1 Schematic of project methods to complete objectives

3.1 Objectives 1 & 2: Identify Challenges of Obtaining a Disability Certificate and the Best Practices to Present Information Digitally

The first objective was to identify the challenges Romanians face when obtaining a disability certification. The outcome of this objective furthered the team's insight into the current state of accessibility of disability certificates in Romania, as well as understanding the experiences of people with disabilities when going through the application process.

The team's second objective was to identify the best means of presenting the necessary processes and documents required for certification through a digital application. The team was able to design a more accessible and user-friendly application with this knowledge.

To complete these two objectives, the team utilized the same methods to obtain the information necessary. The team researched the issue through a literature review of journal articles, Romanian and international comparative reports on the accessibility of employment opportunities, and the attitude of Romanians in regard to people with disabilities. Additionally, the team explored what makes a product, such as a website, user-friendly. This research, as explored in Section 2.0, yielded project ideas for the team to develop on how to create a more accessible digital solution. Along with the literature review, the team conducted interviews with NGOs and surveys on Romanians with disabilities to expand their resources.

3.1.1 Method 1: Interviewing NGOs in Romania

To accomplish objective one, the project team reached out through Civic Labs to various Romanian NGOs working to support disability groups and the legislation surrounding them. Table 3.1 provides a list of the five NGOs that the team interviewed in chronological order. Civic Labs contacted NGOs via email to inquire about the possibility of the IQP team holding an interview. After Laura Micle, the UX researcher for Civic Labs, set up a date and time for the interview, the team emailed *Appendix A: Email Introduction for Interviews* to the interviewee. The email introduced the project team, explained the purpose of contacting the NGO, stated the goal of the project, and disclosed to the interviewee that the interview is not inherently confidential, but they could opt to remain anonymous in documentation and reports. The introduction email concluded with the group's contact information to address any questions or concerns from the interviewee. The research team sent out an email invitation with the Zoom meeting link to the interviewee the day prior to the meeting.

The interviews took place online via Zoom and email. Using Zoom enabled the team to record the interview for future reference, with consent from the interviewee. The team conducted one interview by emailing the questions to the interviewee. Laura Micle sat in on all Zoom interviews to provide clarification and assistance. Additionally, Laura Micle translated the interviews with the representatives from Foundation for You and the Romanian National Disability Council from Romanian to English. Two members of the research group were present during each Zoom interview. The first member acted as the interviewer while the second member took notes throughout the session. Prior to commencing the questioning portion of each interview, the interviewee signed a digital informed consent agreement via a Google Doc, which the interviewer sent directly to the interviewee through the Zoom chat room. For the written interview, the team sent the consent agreement in the document along with the interview questions via email. *Appendix B* presents the signed agreements for all the interviews performed.

The interviewer began the interview portion by obtaining consent from the participant to record the session and by informing the interviewee of their rights as a research participant. For the written interview, the first page of the document contained a brief overview of the interview and the project goal, as well as their research participant rights. The interviewer then began the semi-structured questioning portion of the interview. *Appendix C* presents the introduction to the interview, as well as the original interview questions. Due to time constraints and differing focuses of each interviewee's organization, the team prioritized three or four questions that would be the most beneficial to ask each representative.

The NGO interview questions (see *Appendix C*) addresses the organization's knowledge of the certification process in Romania (Q1), how the organization relays information to the people they serve (Q2), if they have assisted people with the disability certificate process (Q3) and how they think the certification process could become easier for the applicant (Q4). During the interview with the Centrul de Resurse Juridice (CRJ), additional questions addressed how the procedure will change in the future (Q5), and if the certificate process is different for varying disabilities (Q6). In the interviews with Asociația Metodelor Alternative de Integrare Socială (AMAis) and the CRJ, the team included a discussion on the survey questions shown *Appendix I*. The interviewer asked the representatives to provide feedback on the survey's content to adjust for sensitivity and to recommend questions to help the team. The researchers sent an email to the interviewee with the link to the Romanian and English versions of the survey, which *Appendix I*

presents, immediately after the interview. The team did not receive responses from either interviewee, and were thus unable to make changes based on their recommendations. The team utilized Zoom's transcription feature and exported the transcript providing a written record of the interviews which one team member proofread and another member coded (see Table 3.2). $Appendices\ D$ through H present the interview transcripts.

Table 3.1 Interviewed Romanian NGOs

Name of NGO/ Website	Name of Interviewee	Names of Interviewer, Notetaker	NGO Focus	Date of Interview	Trans- cription Appendix Letter
Centrul de Resurse Juridice (Center for Legal Resources) (CRJ) http://www.crj.ro/	Georgiana Pascu	Sophia Calandrello, Charlotte Kokernak	"Works to create and operate a legal and institutional framework to ensure respect for human rights and equal opportunity" - CRJ	March 22, 2022	D
Asociația Metodelor Alternative de Integrare Socială (Association of Alternative Methods of Social Integration) (AMAis) https://amais.ro/despre-noi/	Alexandru Cucu	Evelyn Tran, Sophia Calandrello	NGO supporting inclusive architecture, technology, social projects	March 24, 2022	E
Fundația Pentru Voi (Foundation For You) https://pentruvoi.r o/en/	Diana Ungureanu	Charlotte Kokernak, Evelyn Tran	Organization which works to support and advocate for rights, inclusion and welfare of adults with intellectual disabilities	March 31, 2022	F
Sense International https://surdocecit ate.ro/en/home/	Eti Czondi	N/A	Organization working with and for people with deafblindness	[written interview returned] April 1, 2022	G

Table 3.1 Interviewed Romanian NGOs

Name of NGO/ Website	Name of Interviewee	Names of Interviewer, Notetaker	NGO Focus	Date of Interview	Trans- cription Appendix Letter
Consiliul Național al Dizabilității din România (Romanian National Disability Council) https://www.fcnd r.ro/	Daniela Tontsch	Sophia Calandrello, Charlotte Kokernak	"Umbrella organization of national organizations supporting persons with disabilities"- RNCD	April 1, 2022	Н

3.1.2 Method 2: Online Survey with People with Disabilities in Romania

The team used Qualtrics, an online survey software, to develop an online survey for people with disabilities. The team prepared a survey with a conditional flow of questions, meaning that Qualtrics directed Romanians with disabilities who have received a disability certificate to one block of questions, and those who have not to another. The purpose of the survey was to ask Romanians with the disability certificate to provide their experiences with the challenges of the disability certificate process. The team's survey asked Romanians with disabilities who did not have the disability certificate to contribute to this information regardless of whether they had sought out the certificate previously or not. If a person had not sought out the certificate, the team asked why they did not start the process and what barriers they had encountered (*Appendix I: Block 5, Q3*), and why they did not start the process (*Appendix I: Block 5, Q4*).

Appendix I consists of an introduction to the project, the topics mentioned in the survey, an estimated completion time, a confidentiality clause, and a consent to participate clause. To protect the safety and privacy of the participants, the introduction portion of the survey informed individuals that the survey is anonymous and voluntary. Individuals were free to bypass any question or stop at any point prior to completion. Survey questions including those asking about

why they did or did not obtain a certificate, the complications they experienced, or suggestions to ease the process (*Appendix I: Block 4, Q3-6* and *Appendix I: Block 5, Q3-5*) included an openended response option ('other') to allow respondents to freely express their opinions and experiences in more depth for appropriate questions.

The team worked on the survey from January 12th, 2022, through March 30th, 2022, while gaining feedback from their advisors. The team further requested feedback for the survey questions from the first two NGOs interviewed, mentioned in Section 3.1.1. Before distributing the survey, the team presented the introduction and survey link to Civic Labs's communication manager, Traian Stanciu, and Laura Micle. The Civic Labs team made alterations regarding the accuracy of the information on the multiple-choice questions, the clarity of process steps, and English to Romanian translations. The team adjusted the survey and returned it to Civic Labs to distribute.

Civic Labs distributed the survey for the team through redirectioneaza.ro, a Code for Romania platform for NGOs in social services. Though the platform does not directly correlate to people with disabilities, it reaches hundreds of NGOs, many of which do focus on disabilities. The NGOs registered on the platform circulated the online survey that the project team created. Given the short time frame of the project, distributing the survey link via email to the target audience enabled the team to reach a larger number of the target sample, comparative to conducting interviews. The researchers and Civic Labs opened and distributed the survey on March 29th, 2022 and closed the survey on April 6th, 2022.

The team split the survey questions for people with disabilities (see *Appendix I*) into several blocks of questions for different topics. The survey started with the team asking the respondent to provide general information such as gender, age, and disability type to better classify the demographics of the participation pool (*Appendix I: Blocks 2 & 3, all questions*). Qualtrics then directed the participant to either block four or five, depending on whether the respondent reported having a disability certificate (*Appendix I: Block 3, Q5*). The team asked individuals with a disability certificate to answer questions that focused on their experience on the issuance of the disability certificate, including any difficulties and challenges they faced (*Appendix I: Block 4, Q1-6*). Qualtrics directed participants without the certificate to block four, which asked why the individuals didn't have the certificate, or what prevented them from obtaining it (*Appendix I: Block 5, Q1-5*). Block six, the final question block, was identical for all

participants that completed either block four or five. The team asked participants about their technology usage to determine the potential characteristics of the digital tool.

The team provided the survey questions in both English and Romanian, permitting the respondents to answer in their preferred language. While the researchers were unable to view the respondents' email addresses, they were able to utilize Qualtrics's security settings to detect and block multiple submissions, thus ensuring the data's integrity.

3.1.3 Analysis of Interview and Survey Responses

As responses for the online survey arrived and interviews took place, the team began to analyze

Table 3.2 Deductive codes

- 1. Suggestions/things to consider for the app
- 2. Information about the process overall
- 3. Difficulties with the process
- 4. Difficulties with getting information
- 5. Why do people not register
- 6. How the NGO sends out info
- 7. Other
- 8. Additional sources

the results. To analyze the qualitative responses in both the interviews and surveys, the team used deductive coding with the developed categories found in Table 3.2. The team addressed the information necessary for the first objective of identifying the challenges within the certification process by establishing categories one, three, four and five in Table 3.2. The team added in categories six and seven to identify how to best present information digitally, which addressed objective two. The team's understanding of the overall process and additional topics that the group did not consider were furthered by quotes and comments that fell under categories two and eight. This method provided an organized visual key to establish the common

themes found across the interviews and surveys.

In the survey, the team asked the respondents to select their experienced difficulty on specific steps in the process (*Appendix I: Block 4, Q2*). The team provided a Likert scale for the respondents to rank their difficulty from extremely easy to extremely difficult. The Likert scale approach gives the respondent five choices, and the team can analyze the responses by computing a weighted average over all the responses. The team set "extremely difficult" at five, and "extremely easy" at one. With the Likert scale, the team can compare the average answers between multiple questions which use the same scale.

In the interview coding, one team member highlighted following the established criteria with corresponding colors. The other team members reviewed the coding afterward. *Appendices C* through *H* present the coded interviews. For the survey responses, the team used summary

statistics for close-ended questions and extrapolated the common difficulties experienced by people with disabilities using inductive coding (coming up with the codes as we read the feedback) as well as their preferences for personal technology usage.

3.2 Objective 3: Designing a Digital Solution

The third objective was to design a digital solution to outline the information needed for the disability certification process. The team participated in a "crash course" conducted by Civic Labs. UX designer Ana Stoichiţoiu facilitated the session and Teodora Negru and Laura Micle also attended the session to provide input. The team learned the basics of utilizing Figma, and the design process in developing a prototype. Ana provided the team three steps to start the development of the digital solution: determining user goals and their flows, creating a decision tree, and developing wireframes.

Similar to Civic Labs' technique, the team immediately started developing three goals the users of the digital solution could accomplish using the digital solution. The team developed user goals by analyzing the results of the interviews and surveys. These goals are finding general information about the certificate, finding personalized information on the process, and creating an account to save and share information and documents. From these goals, the team determined user flows, or the steps the user will take to reach the information the website aims to provide.

The team then developed wireframes of different screens of the idealized application. These are potential screen layouts using simple formatting influenced by past Civic Labs projects and other user interfaces the team searched for. The team worked with Civic Labs to accomplish this step to create an intuitive flow. Next, the team developed a high-fidelity prototype, or hi-fi, meaning the prototype will closely resemble the final product. This involved the team adding more aesthetic design choices such as the color scheme, font choice, and images. The team also added different user interactions such as when a user clicked a button, it would prompt a new screen and when a user hovered over a dropdown menu, the button would be highlighted to show that the user selected it. By adding variations of components and screens with the user interactions, the prototype can resemble a more realistic website.

Prior to completing the user testing, the team tested the contrast of the prototype to ensure the selected color scheme would be readable by users if they accessed the prototype on a device that only shows grayscale images. To complete this task, the team took screenshots of the most complex prototype screens with many buttons and edited the coloring to be in grayscale. By converting the screens to grayscale, the team determined if the contrast was sufficient for users to read all the text.

3.3 Objective 4: Evaluating the Effectiveness of the Prototype's Features

Upon completing the prototype, the team requested feedback from three NGO representatives, listed in Table 3.3. Laura Micle of Civic Labs reached out to Diana Ungureanu of Fundația Pentru Voi, Daniel Huma of Motivation Romania, and Bianca Luca of Asociația Autism Voice, inviting them to participate in user testing sessions of the Figma prototype. After accepting, Micle sent out a Zoom invitation. Two participants of the research team, acting as interviewee and notetaker, and Laura Micle joined a Zoom call with the NGO representatives to test the prototype. Laura Micle also sent each representative Informed Consent Agreements for User Testing to sign (see *Appendix J*).

Originally, the team created a template (see *Appendix K*) to test the prototype with the NGO representatives. The framework consists of four tasks for the representative to complete: find benefits of the certificate, find personalized information for an adult applying alone for the first time with a vision impairment, submit an application, and approve Jane Doe's application. Three of these tasks are applicant user flows, and one is a social worker flow. The interviewer asked the participants to "think-aloud" to understand a theoretical user's thought process while interacting with the prototype. The think-aloud process facilitates the team's ability to assess the intuitiveness and functionality of each of the user flows. After completing each task, the interviewee answers a series of questions, including rating the difficulty of completing the task on a scale of one to five, one being extremely easy and five being extremely hard. The interviewer additionally asked what difficulties the tester faced completing the task as well as what they enjoyed about the particular user flow during the session. Following the participant's testing of the prototype, the researchers asked follow-up questions about the participants' comments and inquired about further suggestions for the application.

During the first testing session, there were complications completing the user testing session. Because the team did not make all the buttons and interactions clickable for the prototype, the Civic Labs representative Laura Micle recommended the team to display the prototype screens rather than have the participant interact with it directly to prevent further confusion. For the next

two sessions, the team simply presented the prototype pages to the testers and asked for feedback. The team recorded the user testing sessions, and presented the transcripts in *Appendices L* through *N*. The team then used inductive coding to code the feedback into three categories, compliments in green, suggestions in yellow, and other feedback in red. *Appendix O* presents the coded user testing notes. The team took the input from the NGO representatives and proposed possible improvements in the results chapter of the IQP final report.

Table 3.3 Romanian NGOS that participated in user testing

Name of NGO/ Website	Name of Interviewee	Names of Interviewer, Notetaker	NGO Focus	Date of Testing Session	Trans- cription Appendix Letter
Fundația Pentru Voi (Foundation For You) https://pentruvoi.ro/en/	Diana Ungureanu	Evelyn Tran, Charlotte Kokernak	Organization which works to support and advocate for rights, inclusion and welfare of adults with intellectual disabilities	April 20, 2022	L
Motivation Romania https://motivation.r o/en/	Daniel Huma	Evelyn Tran, Sophia Calandrello	NGO whose mission is "to develop sustainable programs that improve the quality of life of people with disabilities in Romania" - Motivation Romania	April 20, 2022	M
Asociația Autism Voice https://pentruvoi.ro/en/	Bianca Luca	Sophia Calandrello, Charlotte Kokernak	Organization which works "to develop and provide, at the national level, the best specialists and the best programs for the recovery and integration of children with autism or behavioral disorders"- Autism Voice	April 20, 2022	N

3.4 Summary

The team worked collaboratively with Code for Romania: Civic Labs to propose a digital tool to guide Romanians with disabilities through the necessary processes and documents when seeking a Romanian disability certificate. The team executed the four established objectives to complete their project, and presented a complete, high-fidelity prototype to Civic Labs at the end of the project term. The team used the findings from the interviews and surveys conducted under objectives one and two to summarize the inadequacies of the current system surrounding the disability certification in Romania. The team developed the initial prototype of the website (objective three) by including the findings discovered from objectives one and two, and sought to address the many problems of the application process. In objective four, the team used additional NGO feedback to refine and finalize the prototype. Figure 3.2 below is a Gantt chart outlining the schedule the team followed to carry out the steps and objectives of the methodology. In Figure 3.2, the blue boxes demonstrate the duration of time the team allotted for the given steps found in the left-most column. The 'X' illustrates the completion date for the given task.

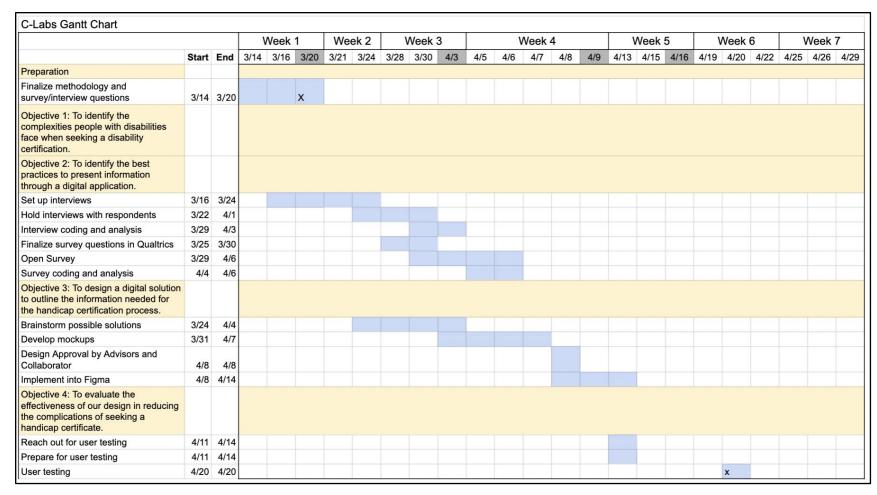


Figure 3.2 C-Labs team Gantt chart

4.0 Analysis of Survey and Interview Results

This chapter reviews the team's key findings from the methods outlined in the previous chapter. The team divided this chapter into two sections under which the main findings fall: difficulties with the current disability certification process and the design considerations for the prototype. The team identified the findings by analyzing the data from interviews with NGOs and surveys of people with disabilities, and the preliminary steps of the prototyping design process. When the team analyzed the interviews and surveys, they discovered that the information and direction on the certification process is scarce, the management of documents hinders progress in the process, the government inadequately manages the process, a website is a more suitable solution than a mobile application, and that there needs to be a website for stakeholders to manage documents and application progress. During the prototyping design process, the team found additional evidence which made a website the more suitable solution and subsequently determined that there needs to be a website where all stakeholders can access the application process. The team's objectives for the design process were to identify both the challenges Romanians face when seeking a disability certification and the best practices to present the necessary processes and documents through a digital application.

4.1 Identifying Difficulties with the Current Application Process

This section presents the key findings relating to challenges with the current disability certification process and begins with reviewing the results to demonstrate the insufficiency of knowledge and direction available for the certification process. The section proceeds to explore the extent to which managing documents disrupts the process for the applicant. Finally, the team examines the process that the government currently employs to manage administering the certificate. The team obtained the results presented in this chapter through interviews with NGOs and surveys of people with disabilities in Romania.

Finding 1: Applicants for the disability certificate are confused about the process.

As the background chapter discussed, the government and its institutions have not centralized information on the Romanian disability certification process under a single accessible source. The team discovered, through the interview with the National Council for Disabilities,

that the laws regarding the certificate are homogenous throughout Romania. Despite this, each of the nation's 41 counties has different regulations governing the process, as well as unique requirements for application documents. Those familiar with the certification process know there are multiple government and medical institutions involved and the applicant must travel between them, sometimes on multiple occasions. Multiple interviewees and survey respondents claim social workers at the DGASPC frequently are not familiar with the process either, since their only job is to check the paperwork. They are often unable to answer specific applicant questions about the process. Additionally, the government divides the term "disability" into ten classes, but legislation does not contain information on the specific diseases or disorders which make up each of the classes. The team discovered this information through early research and gained confirmation through the interviews. Because of the extensive process and lack of organized information, people with disabilities often cannot discern from the information provided if they qualify for a certificate in Romania.

The survey responses from people with disabilities in Romania reveal that applicants have a considerably difficult time finding information on the certificate process online. Figure 4.1 presents the results from the survey question where the team asked Romanians with disabilities to select the option which best represents their experienced difficulty level while finding information on the certification process online (*Appendix I: Block 4, Q2*). From the 25 responses, the majority of respondents reported finding information on the certification process online is extremely difficult and almost 30% reported it to be somewhat difficult. Using the Likert scale, the 25 respondents rated an average difficulty of 4.36 on a scale of one to five, one being extremely easy and five being extremely difficult. These results demonstrate the government's inability to provide clear and understandable information and directions to certificate applicants.

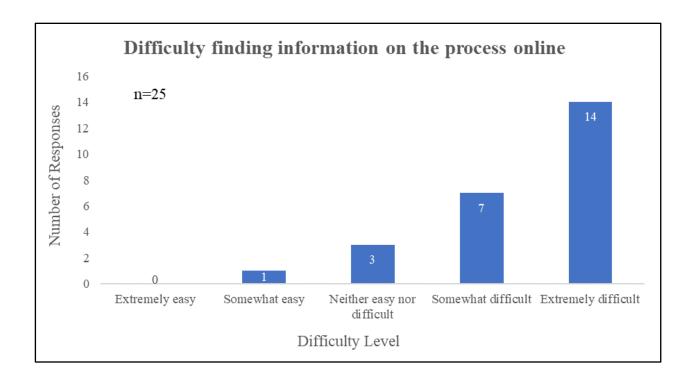


Figure 4.1 Difficulty finding online process information for Romanians with disabilities

(Appendix I: Block 4, Q2)

In addition to surveys, the team interviewed five NGOs involved with assisting people with disabilities. The NGOs revealed insight into the shortage of information on the process for applicants, social workers, and other parties involved. During the interview with the President of the Romanian National Council for Disabilities, Daniela Tonsch, she states that information on the process is not available online and that the applicant must go in person to a county agency which introduces significant difficulties to the process. "They [the websites of all the county-level agencies] are very, very badly made and the information... is not well explained, and they're not accessible at all." Tonsch also states that the applicant must travel to many different institutions, sometimes the same one multiple times, as there is no single location where the applicant can complete every step of the process. Though burdensome for all applicants, these requirements are especially demanding and stressful for those with mobility impairments and mental disabilities, as Diana Ungureanu mentioned in her interview.

Finding 2: Applicants having to manage physical documents creates disruptions in making progress.

Applicants having to manage many physical documents remains a significant aspect hindering the process. Respondents emphasized this in the surveys and interviews the team conducted. The team's background research determined that the process to obtain a disability certificate is complex and detailed, especially concerning the applicant's required steps to submit the necessary documents. There is no one source that outlines the specific documents needed for each step of the process, and applicants do not know what they need until they arrive there. If an applicant forgets one document in the submission stage, it can result in the applicant needing to make multiple trips to the correct location to obtain the document before resubmission. This can be extremely frustrating for the applicant as it is time-consuming, inconvenient, and potentially adds months onto the timeline, further delaying their certification and the acquisition of benefits.

During the interview, Tonsch describes a friend's experience with the file submission at the DGASPC. "When she [the applicant] got to the agency to submit it, it [the file] was almost three and a half centimeters thick, and the person who went through it said that she's still missing some [papers] and she couldn't do it [the certification process] anymore." Based on the team's research on the process, applicants wanting to obtain the disability certificate must make a minimum of seven trips to gain the information, evaluations, and documents to apply for the disability certificate. Commonly, the appointments must occur in person, and the applicant needs to submit original copies of documents. Additionally, Eti Czondi, from Sense International Romania, further emphasized that it is "the lack of a coordinated approach- which puts the person with disabilities, respectively the parent of the child with disabilities, to make countless trips from institution to institution."

Additionally, the survey of people with disabilities reported the extent to which submitting documents is difficult for the applicants. The team asked the participants about the difficulty in submitting administrative documents on a scale of one to five from extremely easy to extremely difficult (*Appendix I: Block 4, Q2*). Almost half of the respondents stated that submitting administrative documents was somewhat difficult and about 30% said it was extremely difficult. Using the Likert Scale, with one being extremely easy and five being extremely difficult, the 26 survey participants rated the submission of administrative documents

an average of 4.03. Based on this weighted average, the team concluded that it is somewhat difficult for applicants to submit administrative documents.

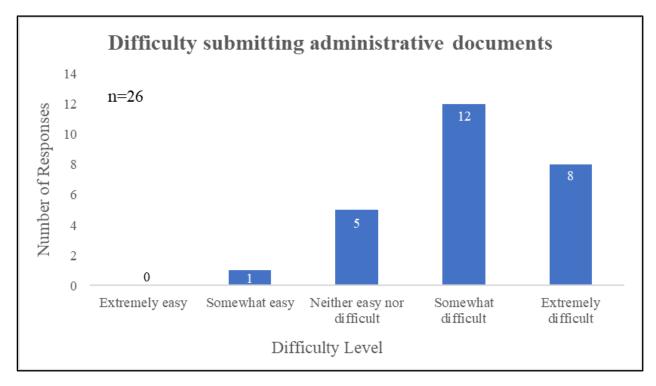


Figure 4.2 Difficulty submitting administrative documents for Romanians with disabilities (Appendix I: Block 4, Q2)

Additionally, when the team asked respondents the open-ended question "What could make the certification process easier?" (*Appendix I: Block 4, Q6*), many of the responses are related to the submission of documents. Thirteen respondents suggested the ability to submit documents digitally. Respondents also mentioned the existence of a website containing all the information about the necessary documents and where to obtain them.

Finding 3: The government manages the certification process inadequately.

While the Romanian government provides disability certificates in practice, it often does so at a great physical and emotional toll on the applicants. The social workers hired by the government to manage the applications as well as doctors involved in the process are often ill-informed about the process and can be condescending and even verbally abusive towards

applicants. The team asked survey respondents an open-ended question, "What complications with the process did you encounter?" (*Appendix I: Block 4, Q5*). The team then grouped their responses into common themes and graphed the frequency of each complication. Figure 4.3 shows that eight survey participants recounted bureaucracy as being a pervasive impediment to the process, making it the most common complication respondents mentioned. The effects of bureaucracy trickle down to nearly all aspects of the application process.

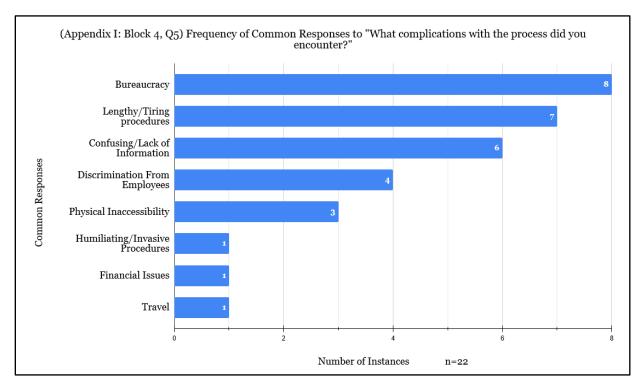


Figure 4.3 Frequency of common responses to "What complications with the process did you encounter?"

In its current state, the certification process requires the applicant to travel between many locations. As interviewees mentioned in multiple interviews, disabled Romanians are frequently less financially stable than their able-bodied counterparts, and the need to pay for transportation to and from appointments can result in Romanians with disabilities not getting their certificates. In some scenarios, the Romanian government provides a stipend for travel to and from medical appointments for the certificate, but the stipend is not sufficient to cover travel for all of the appointments and is only available for active certificate holders.

Commonly recurring themes in both the survey and interviews are that the government social workers are unhelpful towards applicants, that they are not well informed on nuances and

details of the process to obtain a disability certificate, or that they did not understand the process outside of their own role. The results are that in some applicants' experiences, government employees are unhelpful, forcing applicants to struggle to find information that should be readily available for their use and benefit. Respondents of the survey also noted that the workers are defensive when they did not know something and would occasionally lash out. One survey respondent is quoted as saying "the evaluator yelled at me and treated me as if I had no right not to understand or answer." The government is ultimately responsible for training and funding the application process and its workers, and it is firmly evident from multiple instances that its bureaucracy negatively affects the disabled Romanian population by hindering applicants' ability to obtain the certificate.

4.2 Design Considerations for the Prototype

This section presents the major findings and results relating to the beginning phases of the design process of the proposed prototype solution. It begins with examining the results which demonstrate that a website is a more suitable solution than a mobile app. The section subsequently reviews the finding that there is demand for a website for stakeholders to manage documents and appointments. The team obtained the results in this chapter from interviews with NGOs, surveys of people with disabilities in Romania, and collaboration with Civic Labs in the beginning stages of developing the wireframe for the prototype found in Chapter 5 Prototype Design and Evaluation.

Finding 4: A website is a more suitable solution than a mobile app.

The team determined a website is a more suitable solution than a mobile application through the survey responses, as well as through the preliminary steps of the design process. A website is adaptable to desktops and mobile screens, whereas a mobile application is limited to smartphones. A website is less reliant on system updates to run smoothly and accessible by users on mobile devices' operating systems without adaptations to fit either system.

Through the survey, the team asked participants if they are more familiar with using a website or mobile application (*Appendix I: Block 6, Q3*). Figure 4.4 presents the results of this survey question. Of the 35 respondents, 43% (18 respondents) chose a website as being the more familiar digital format to use. After collecting survey responses, the collaborators noted that the

respondents answering this question may have selected a mobile app with the assumption that they would still be using a website, just on a mobile device.

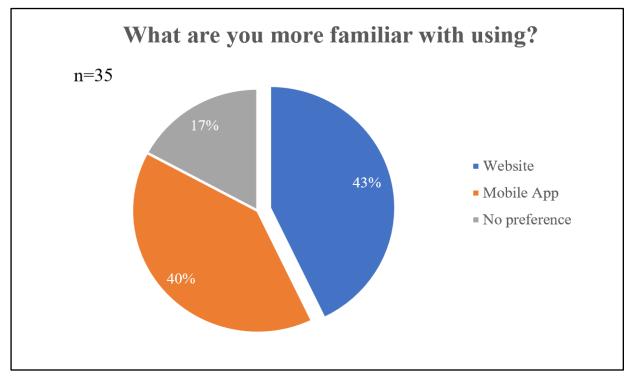


Figure 4.4 "What are you more familiar with using?", familiarity amongst disabled Romanians on digital formats (Appendix I: Block 6, Q3)

In the interview with Georgiana Pascu from the Center for Legal Resources in Romania, she states that "most of the people have internet but they don't have laptops... they will have to use the social worker office from the village level to fill in the application on one computer." This interview contributed to the team's decision to create a website because in the case that the applicant has no technological resources such as a mobile phone or computer, they could access the website from their social worker's office if needed. Furthermore, other users of the website other than the applicant, including social workers, government evaluators, and doctors, are more likely to work from a desktop than a mobile phone while using the website. As the team began designing the solution and implementing the preliminary foundation of the website into Figma, constructing a website became increasingly evident as the more suitable solution. During interviews, the interviewees suggested the final solution should be as adaptive as possible for future alterations. A website solution is more adaptive and as the certification process changes in

the future (as Pascu mentioned, during her interview, that this may occur), Civic Labs could further alter the website design, but the main foundation would remain functional.

Finding 5: Stakeholders need a website to manage documents and the application progress.

If the government digitizes the disability certificate process and information, it could solve or ease the many barriers to the process, including financial, physical, and emotional distress. Alexander Cucu, a lead programmer for Association of Alternative Methods of Social Integration (AMAis), states during his interview that "technology can help in this process in my opinion, with transferring documents between different authorities, [and] also ... with doctors and people going to the doctor."

Additionally, in the survey, the team asked the open-ended question, "What would make the process easier?" (*Appendix I: Block 4, Q6*), allowing the respondent to provide multiple responses. The team's coding analysis demonstrated that the most common theme among respondents was the request for the digitization and centralization of the process. Digitization, which 13 respondents advocated for in Figure 4.3 above, could address nearly all the subsequent common responses, depicted in Figure 4.5. An online platform where applicants, medical professionals, and social workers can complete the application and upload necessary documents for review would simplify procedures, address a lack of physical accessibility, and reduce the potential for discriminatory interactions with government employees.

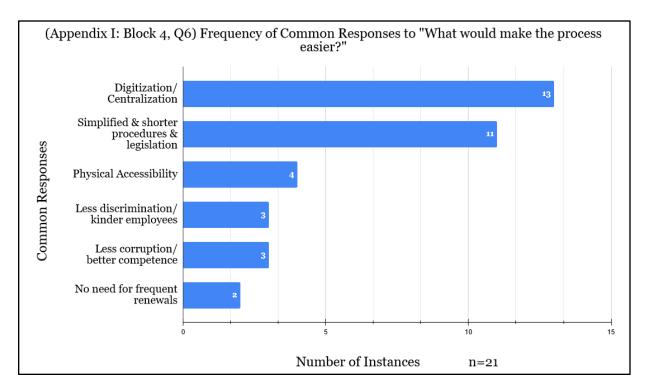


Figure 4.5 Frequency of common responses to "What would make the process easier?" (Appendix I: Block 4, Q6)

If the government moves the application process and information to an online format, it may reduce many of the known barriers of the procedure. In its current form, the government's decentralized system requires that people search through many different and unrelated sources to find the necessary information. A website providing all the documents, forms, and knowledge the applicant needs in one place would lessen the need to search several sources for information. Physical inaccessibility of public buildings becomes much less relevant, as applicants would only need to locate an internet-connected device. Additionally, the need to source potentially expensive or inaccessible transportation to distant appointments may become less significant. If the application was online, social workers hired to help with the process would have more opportunity and time to research questions from applicants that they cannot answer at the time the applicants ask.

4.3 Summary

The team found the results reviewed in this chapter and used them to achieve the project objectives. The team concluded that the process to gain a disability certificate in Romania is

burdensome, inconvenient, and confusing. Through the surveys and interviews, the researchers uncovered the specific challenges inhibiting applicants from progressing through and completing the process. Additionally, the project group found that a website would be the most suitable solution to manage documents and the application progress for all stakeholders. The findings this chapter showcases guided the team during its design process to create a digital tool to steer applicants through the necessary processes and documents, which the next chapter covers in detail.

5.0 Prototype Design, Implementation and Evaluation

This chapter discusses the project deliverables, including the prototype created in Figma, the evaluation results from user testing of the prototype and final recommendations from the project team to Civic Labs for future adaptations and implementations of the design. As section 4.2 mentions, the team determined that a website is the most effective medium by which to digitize the disability certification process. On the advice of Civic Labs, the team chose to construct the website using Figma, a collaborative tool for designing websites. Civic Labs was instrumental during the building process, providing Figma tutorials, feedback, and reference material for the team to utilize. The final result was an interactive prototype that demonstrates the ability of applicants to apply for a disability certificate, for social workers to manage applications, and for the general public to learn more about the certification process and benefits.

5.1 Prototype Design

Sections 5.1.1-5.1.3 reviews the team's process in creating the prototype, as well as the key aspects of the design. The team built the prototype by establishing user flows, developing 64 different screens to mimic a website, and considering elements to create a more accessible and finalized prototype. In addition to the findings from the surveys and interviews in Section 4.0, Civic Labs provided guidance throughout the design process. The input of both Civic Labs and participants from the team's surveys and interviews assisted the team in making choices and edits in their implementation. *Appendix P* presents the complete set of screens the team developed and delivered to Civic Labs for the prototype.

5.1.1 Establishing User Flows

The team started their implementation by deciding on three main tasks that the user should be able to complete on the prototype and developed user flows to complete those tasks. User flows represent the steps a person would ideally take on the website to complete their desired action. Following the user flows, the team designed screens that the user navigates in the same order. For example, if the user is looking for general information, upon clicking the "general information on certificate" button, the website takes the user to the certificate information page. Figure 5.1 presents the user flows the team developed based on the user goals for people with disabilities.

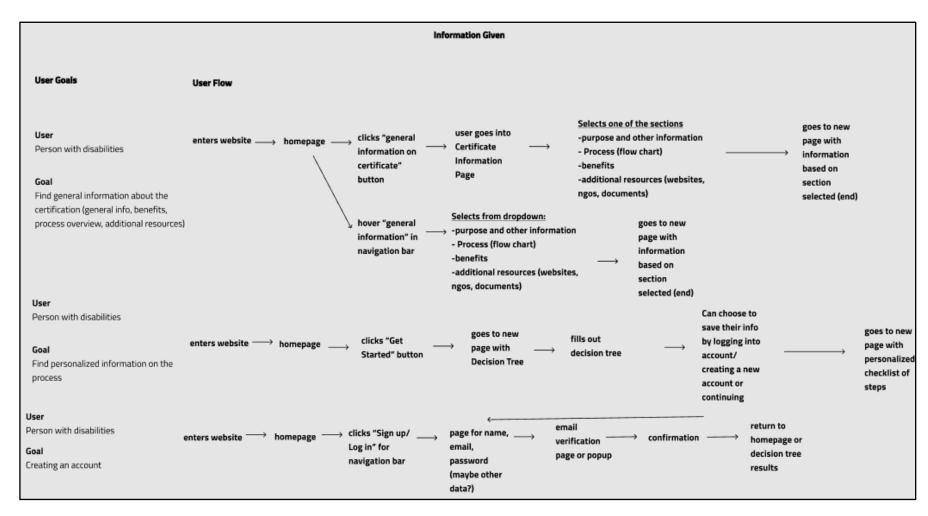


Figure 5.1 User flows for the prototype

The system blueprint, in contrast to the user flows, lays out the separate areas, permissions, and interactions between the multiple users of the website (see *Figure 5.2*). The green boxes represent the areas that an unregistered user can access, which include the general information pages on the website, navigating the decision tree, the results of the decision tree, and creating an account. Blue boxes represent the areas registered users can access. The blue boxes correspond to different classes of registered users (super admin, social worker, and applicant) which indicate where they have access to specific parts of the website as well. Applicants have access to their homepage, the ability to upload documents, and can check their application progress. The black arrows show the general paths and interactions that the user classes can navigate through, such as the social worker accessing an applicant's profile to check and validate documents.

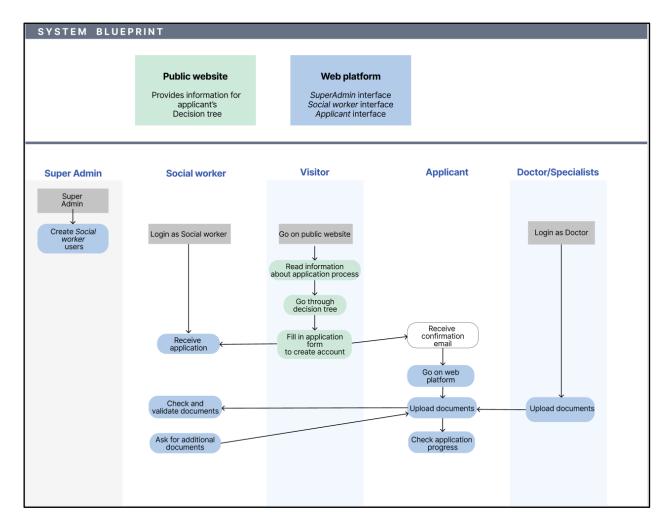


Figure 5.2 Top-level system blueprint

5.1.2 User Screens

After the team established the user flows and the system blueprint in collaboration with Civic Labs, the next step was to determine the screens the user would need to access on the website. The team then implemented the screens into Figma to mimic the user flows on the website. This section discusses the team's design choices and details regarding each of the major screens in the prototype. The website prototype consists of several groupings of pages: the homepage, general information on the certificate, a decision tree for applicants, login and creating an account screen, social worker screens, and an applicant homepage screen.

User Screens: Homepage

The homepage is the landing page of the website (*Figure 5.3*), or the first page a visitor sees. The top navigation bar has a "Get Started" button which takes the user to the decision tree, a "Disability Certificate" button which drops down to "About the Certificate, Process, Benefits, and Additional Resources" pages, an "About" button which leads to information about Civic Labs, "Contact" to Civic Labs's contact information, "Log In" and "Sign Up" pages, and a globe button to switch the default language. Additionally, clicking the logo will bring a user back to the homepage. This navigation bar is present on all pages of the general website, whether or not the user is logged in under an account. The homepage markets one of the website's original intended uses, which is to provide personalized steps.

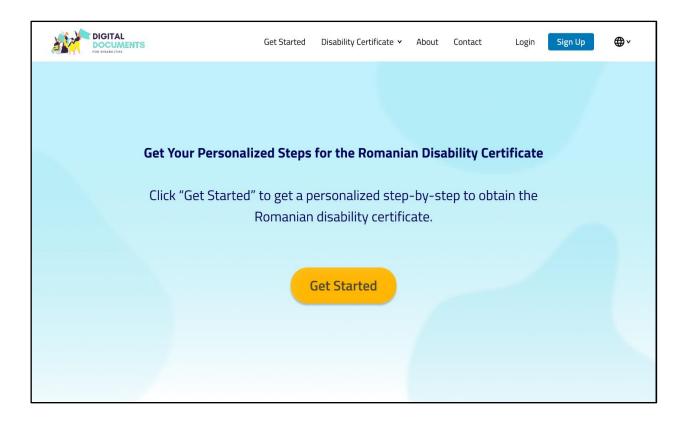


Figure 5.3 Homepage

User Screens: Decision Tree

The decision tree is a series of questions the website prototype asks the applicant, and ultimately provides results based on the answers. Each question is dependent upon the answer to the previous question, with the intent that the user receives personalized results. For example, if a visitor of the website selects "The applicant is myself," the decision tree flow takes the user to a different page from visitors who select "The applicant is someone else." Each question branches off into multiple possible subsequent questions, resulting in the overhead view appearing like a tree; where the metaphorical trunk is the first question, and the leaves are the personalized results.

On the website, the team designed prompts based on the decision tree to ask the user including initially asking if the applicant is applying for the first time or renewing their certificate, if the applicant is the person going through the decision tree or someone else (possibly a parent, NGO, or another assistant), if the applicant is older or younger than 18, and the specific type of disability the applicant has (if applicable). After selecting an answer, the box on the web page will turn from white to blue to signify which option the user selected. The applicant will click next to move to the next question. There are previous and restart buttons to return to the previous question, or restart the decision tree. The user is able to skip selecting their disability type since it is conceivable that they do not know their specific disability, especially if it is their first time applying. After the applicant completes the decision tree, the website generates a personalized results page. For example, if the applicant is renewing their certificate, they will not need to visit their general doctor as the first step, but a first-time applicant will. The decision tree also bases personalized results on the disability type, which decides which specialist doctors the applicant will need to visit for examination.

Figure 5.4 presents two examples of the decision tree prompts (*Figure 5.4*, *images A and B*), an example of a selected question (*Figure 5.4*, *image C*), and example results of an adult applying for the first time with a known visual impairment (*Figure 5.4*, *image D*). The applicant's personalized steps, shown in image D of Figure 5.4, give a simplified overview of their steps on the right sidebar, and a more detailed outline of the process to follow in the middle of the screen. In the top right of the personalized steps page, the applicant also has the option to select two buttons, either to 'start application' or 'print' the results.

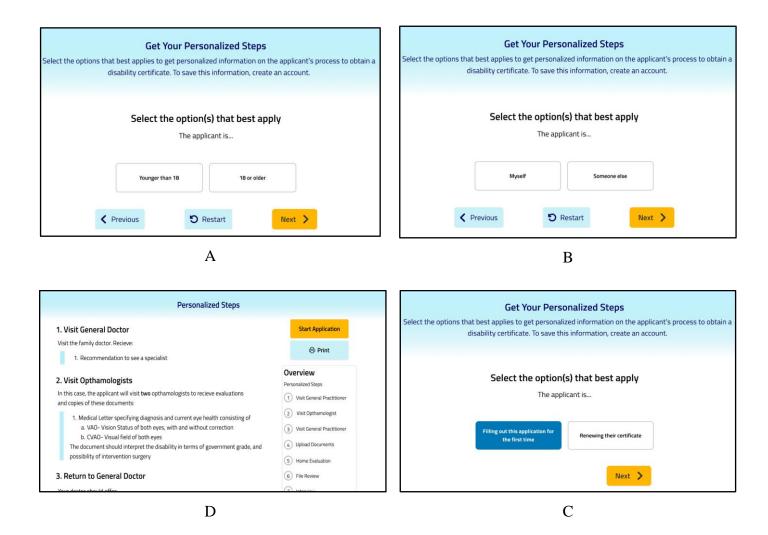


Figure 5.4 Decision tree screens, clockwise from top left: images A, B, C show sample decision tree run through. Image D shows results.

User Screens: Log in or Create an Account

Following the decision tree process, the user can log in or create an account in order to save their personalized results and begin the application. Alternatively, this page is accessible at any time, utilizing the buttons on the navigation bar. The first page of the "Create an Account" flow (*Figure 5.5*), asks for the applicant to input their full name, email, and password of choice (*Figure 5.5*, *image A*). The applicant must agree to the terms and conditions of the website, and to receive emails from Civic Labs to confirm creating the account. After clicking next, the following page will ask the user to confirm their email (*Figure 5.5*, *image B*). Once the user receives the

email confirmation, the applicant fills out more detailed information including age, address, and other personal identifiers (*Figure 5.5*, *image D*). There is an additional option for caretakers, if the certificate recipient is incapable of completing the application independently. If a caretaker is creating the account, they also fill out identifying information similar to the applicant.

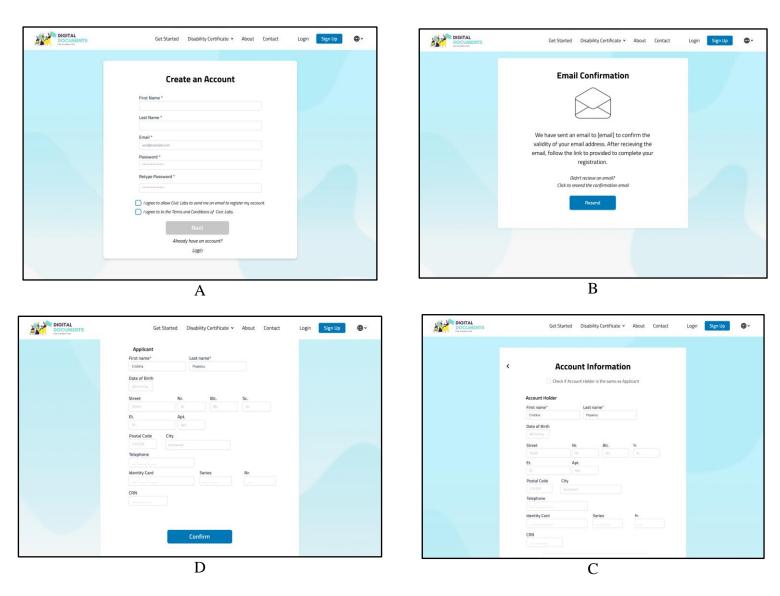
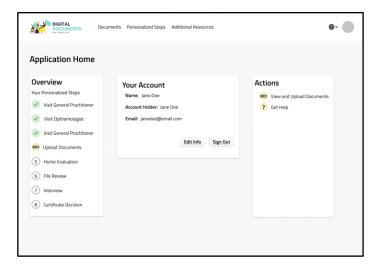


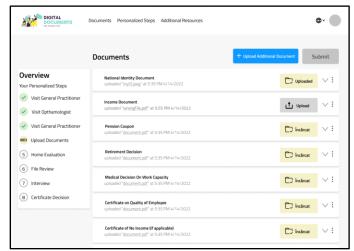
Figure 5.5 Create an account screens, clockwise from top left: image A shows Create an account page, image B shows email confirmation page, images C and D show account information pages part one and two

User Screens: Applicant Interface

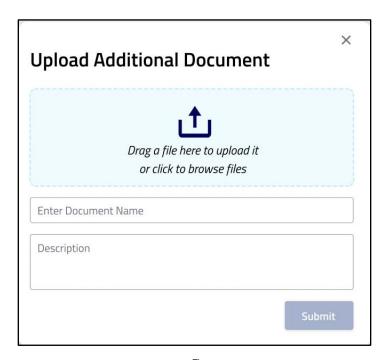
The applicant interface includes all pages that a registered, logged in applicant can access. Figure 5.6 presents some of these pages, and *Appendix P* presents all pages. The application home page shows three panels (*Figure 5.6, image A*). On the left, the user can see their condensed application process overview with personalized steps as well as their progress through those steps. The green icon with a check mark represents that the step is complete, the yellow icons with a progress bar represent that the step is in progress, and the gray icons along with the process number mean that the step is incomplete or has not been started. The center of the page is an account overview containing the same general personal information that the social worker sees, including the applicant's name, the account holder's name, and an email address. The applicant can also edit their information or sign out of their account using the buttons labeled "Edit Info" and "Sign Out." The right side of the screen contains a panel with actions the applicant can take, including accessing the overview page with their documents or requesting help and viewing resources.

On the documents page, (*Figure 5.6*, *image B*), the left side of the webpage displays the user's progress overview. The main portion of the page is a list of the documents required for the application. The user can upload, reupload, view a brief description of, or delete a document. After an applicant uploads the document, the status will show 'uploaded' in yellow. If the user has yet to upload the document, the status will appear as a gray button to 'upload.' Additionally, they can request help, view comments from the social worker, or submit their application. The design includes a feature to upload additional or supporting documents the applicant may want to include, which the applicant can access with the large blue button titled "Upload Additional Documents." The applicant can upload, as well as include a title and description of the document. Figure 5.6, image C presents this feature.





A B



C

Figure 5.6 Applicant interface screens, clockwise from top left image A shows the Applicant home page, image B shows the documents overview page, image C shows the upload additional document popup

User Screens: Social Worker Interface

The website currently has two classes of registered users- social workers and applicants. The website grants social workers the ability to digitally view, comment on, as well as approve or deny specific documents or the final application. The social workers' interface divides into two main pages: *Dashboard* and *Applicants*.

The *Dashboard* page (*Figure 5.7*, *image A*) gives the worker an overview of their current applicant cases as well as a notifications inbox. The notification box displays updates on new applicants, updated applications, newly assigned applicants, etc. The worker is additionally able to click on the name of each applicant, bringing them directly to their case page. Figure 5.7 image A includes new notifications on the left, and new applications on the right. On the left of the screen, the social worker has the ability to switch between the dashboard and the applicant database (*Figure 5.7*, *image B*).

The social worker's applicant database displays a complete list of all applicants and case numbers, their status, and the dates of both the document submission and the last modification. The social worker marks the documents as 'approved,' 'in review,' 'denied' or 'submitted,' and these statuses are color-coded as green, yellow, red, and gray respectively. A social worker using the platform has the ability to select any of the applicants within the applicant database, and the website will bring them to the applicant's page. On a specific applicant's page, the worker can see further details on the applicant, primarily the status of their documents but also a list of the applicants' general information, including means of contacting them.

The applicant overview section displays the applicant's information, as shown in image C of Figure 5.7. There is also a status for each individual document that the applicant uploads. The social worker can mark the status as 'approved,' 'needs changes,' and 'new submission,' with the colors green, yellow and gray respectively.

By clicking on any document, the screen displays the uploaded image or file of the document, and details about the file such as the file name, upload date, and file size. Additionally, the worker has the ability to leave necessary comments on the document for the applicant to see and respond to, enabling the worker to request specific fixes to the submission. This is also where the worker changes the status of each document, from denied, to needs changes, to approved. In image D of Figure 5.7, the comment section displays the social worker commenting that the image is too blurry and requesting that the applicant reupload the document. The applicant can respond

to the comment for further clarification, or in this case, alert the social worker that the applicant has reuploaded the document for review.

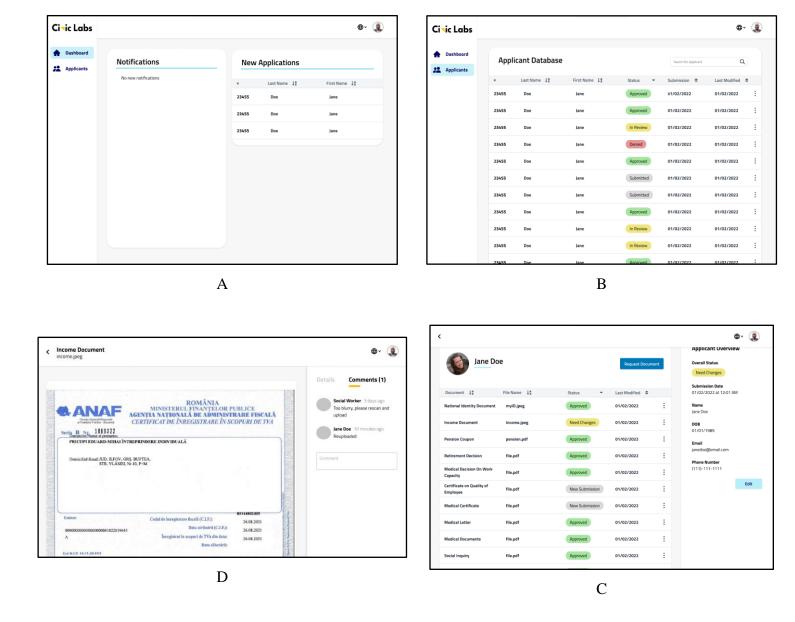


Figure 5.7 Social worker interface, clockwise from top left: image A shows Social worker dashboard, image B shows the applicants database, image C shows the applicant overview, image D shows the specific document overview

5.1.3 Aesthetic Elements of Prototype

During the prototype creation, the team considered many design and aesthetic elements to go from a rough wireframe to a more presentable prototype. As this was a prototype of a website, the team attempted to mimic a website as closely as possible. Hence, the team included common website elements such as top and side navigation bars, highlighted buttons when hovered over in dropdowns, as well as highlighted buttons when selected, as mentioned in Section 5.1.2.

Regarding accessibility, the team used a font size of at least 16 pixels on all of the user screens for visually impaired users and added many icons to further simplify the information for those who may struggle to understand the text.

Additionally, the team chose blue as the primary color for the prototype because people associate the color with calmness, which may help in preventing the stress and frustration the application process can induce (Cherry, 2020). To prompt users to do specific actions, the team made certain buttons bigger and used various colors to draw the users' attention to them. By using the color palette displayed in Figure 5.8, the team implemented a consistent color scheme throughout the prototype in an attempt to provide a more cohesive and seamless user experience. Additionally, the team utilized the font "Titillium Web" and the logo, Digital Documents for Disabilities, that Civic Labs provided the team throughout the whole website to mimic the feel and be consistent with Civic Labs's previous projects.



Figure 5.8 Color palette of the prototype

5.2 Evaluation of the Prototype

This section discusses the evaluation results from the user testing evaluations the team conducted with NGO representatives from Pentru Voi, Motivation Romania, and Asociația Autism Voice. The section begins with reviewing the positive feedback from the NGOs regarding the accessibility of the prototype. The section then delves into the constructive feedback which Civic Labs can implement in the future to create a more favorable and valuable tool.

Evaluation Result 1: The prototype is accessible.

The team gained significant feedback from the NGO representatives on the accessibility of the prototype from the user testing evaluations. Diana Ungureanu from Fundația Pentru Voi said the prototype "seems easy to navigate" and is "really readable and clear," in terms of finding information and completing various tasks. Additionally, Bianca Luca from Asociația Autism Voice stated that the information included in the prototype is "very detailed... on the subject" and is practical for users. Evaluators reported the page that includes personalized steps for the applicant was especially intuitive and clear. In terms of the appearance of the prototype, the NGO representatives noted that the colors and fonts were appealing for users, as well as accessible for readability. Overall, the team gained direct feedback and confidence in the construction of the design. The interviewees responded very positively to the concept of the design and stated that given how nothing similar is currently available, the design will likely be very impactful. Bianca Luca from Asociația Autism Voice said that "it would be amazing for... everybody to get to use this type of platform."

Evaluation Result 2: The website lacks notification features.

Part of the goal of the final design solution is to help people with disabilities in Romania begin and complete the process to obtain a disability certificate. A significant piece of achieving that is to keep all involved parties current with each other's progress and provide the information needed to complete the process. When performing the user testing with NGO representatives, the interviewees confirmed that this is crucial to creating a valuable design. Bianca Luca suggested that the social worker page include a red dot next to applicants' file to signify when the applicant makes changes. Including this feature will give the social worker a visual notification that there is an update to the application status.

The team also received feedback on implementing document approval timelines to help the users to decide which files or documents to prioritize based on their deadlines. Daniel Huma, an NGO representative from Motivation Romania, explained that after an applicant completes the complex assessment, there are just 40 days before the social worker has to approve or deny the file. Daniel Huma then pointed out that including a timeline, like the 40 days for the complex assessment approval, would aid the applicant in organizing their submission schedule.

Evaluation Result 3: Certain details regarding the functionality of the website are unclear.

Through the user testing, the NGO representatives revealed that the level of detail that the prototype provides may not be sufficient for optimal user functionality. Bianca Luca of Asociatia Autism Voice said that the current details in regard to uploading documents on the prototype may lead the users to believe that the users must scan the documents in order for successful uploads. While the prototype did not directly mention "scanning documents," it is evident by Bianca Luca's comments that there may be misconceptions with the instructions for uploading. If a user believes they must scan their documents in order to upload them, this could present a challenge if the user doesn't have access to a scanner. This suggests that the directions on the prototype are not clear at this point and may negatively impact the overall intuitiveness.

Another element that caused users confusion was needing to differentiate between which parts of the decision tree users must fill out and which are skippable. Below the "which disability classes does the applicant have?" prompt, there is a statement saying the prompt is skippable, but the prototype tester missed it.

Through the user testing sessions, the team also learned that certain process information is necessary on a case-by-case basis. The website should more clearly define which documents the government requires users to submit in all cases, and which documents are for unique situations. The information for unique situations can vary depending on disability type, who is applying (applicant or assistant), or the marital status of the applicant. In the user testing session Daniel Huma said that there are multiple instances in which a social assistant may reevaluate a certificate's issuance. Re-evaluation of the certificate's issuance may be necessary if the certificate is expiring, or if the DGASPC believes there may be suspicious circumstances. An applicant may also request re-evaluation to raise their grade of disability (severe, accentuated, moderate) for greater benefits. The different reasons for renewing or re-evaluating the certificate will result in the need for personalized procedures and processes.

It is important for those applying for the disability certificate to take into consideration the negative impact a certificate may have on a person. In the user testing, Luca stated that parents helping their child with the process will want to understand how the certificate may impact their child's future. Furthermore, an applicant or parent, should have a full understanding of the imposed limitations, especially in regard to employment. Bianca Luca further explained that having the certificate can impact eligibility for certain jobs, such as joining a police force. Additionally,

Bianca Luca explained that from the perspective of a parent or guardian, the user should know who has access to the applicant's information once they have with a certificate. The website must make clear which information is confidential and remains between the social worker and applicant, and which information will be accessible to various institutions and employers. Additionally, the prototype must provide clarity in regard to the other constraints that result from being certified as a person with a disability in Romania.

5.3 Final Recommendations

As the team conducted user testing, the NGO representatives responded with meaningful feedback, which the team then recommended to Civic Labs for future implementation. In the user testing, Daniel Huma from Motivation Romania, stated that it would be beneficial for applicants to receive a digital version of their disability certificate immediately following their approval. This would allow the applicants to avoid the delay of waiting for the certificate to arrive via mail and permit them to access their benefits more promptly. As a result, future teams should consider implementing a feature within the prototype that allows for the delivery of an electronic version of the disability certificate. European nations are currently using QR codes as proof of vaccination; this is a possible solution for proving a disability certification via a mobile device. Digitizing the certificate document would require legal assistance and approval from the Romanian government, but it could be a highly favorable feature for users.

Daniel Huma also discussed the possibility of the website allowing approved applicants to immediately receive pensions by adding their bank information to their account information. This feature would allow funds to be transferred more conveniently, and the recipient could access the money immediately, as opposed to waiting for a check to come via mail. Future teams could develop this into the prototype to increase the convenience of which benefits are received. When implementing, future teams should consider the confidentiality and security of the platform, and the degree to which the website protects the user's bank and financial information.

Future developers on the project should be aware of the upcoming, potential changes that the Romanian government has planned for the certification process. National legislation regarding the protection of people with disabilities, and especially the implementation of these laws, is a constant work in progress, and Georgiana Pascu expects changes to the certification process to occur.

A point nearly every interviewee and tester mentioned was the need to make the website accessible to as many stakeholders in the certification process as possible. This includes applicants with disabilities, those assisting them, such as their family members, as well as social workers from city and county levels, their general doctors and specialist doctors. By involving as many parties as possible, the exchange of information and documents within the certification process is further streamlined to create a more versatile application for all users. This will require Civic Labs to collaborate with many government ministries, medical institutions, and other specialists. Additionally, it will require more in-depth research into laws and privacy rights, such as the General Data Protection Regulation (GDPR).

5.4 Summary

Throughout this chapter, the team describes the process of developing a prototype of a website on Figma. This consisted of establishing user flows, implementing the user screens, and evaluating the design. During this process, the team made their design choices based on the user tasks and the aesthetics of the website that will best suit the needs of disabled Romanians. The prototype provided visitors of the website with information on the certificate and a decision tree that ultimately gives applicants a personalized process to assist them in acquiring their disability certificate. The prototype gave applicants a database of documents needed for the certification along with the ability to upload documents. The team also included into the design for the database of applicants and their documents with the ability to approve the documents or leave comments requesting changes. Based on the feedback given by NGO representatives, the team proposed several final recommendations to Civic Labs regarding further development of the project. While the issues surrounding the navigation of the Romanian certificate process are numerous, the project team's solution is a step towards making the certificate more accessible for any person with disabilities in Romania.

6.0 Conclusions

In the initial stages of the project, Civic Labs was interested in exploring the different ways to assist Romanians with disabilities and improve their quality of life. The team took it upon themselves, with the help of their collaborators, to develop a prototype of a digital tool to guide Romanians with disabilities who are seeking a Romanian disability certificate. Each stakeholder that the team introduced to the prototype expressed the great impact that the design could potentially have on the many lives that suffer due to inaccessibility. A website that centralizes the information on the Romanian disability certificate as well as providing applicant's ability to apply online could offer a multitude of benefits for those interested in the certificate.

While Civic Labs' researchers and UX designers can further improve and develop the prototypes current design using the team's recommendations, the prototype as it stands still has the potential to streamline the certification process. The prototype and the team's final recommendations serve as a strong foundation for the future work Civic Labs plans to do. The implementation of the prototype has the opportunity to better support and dramatically enhance the quality of life for the Romanian disabled community. This platform currently serves as a momentous step in building a deep-rooted, valuable impact on this vulnerable group, as well as a significant stride towards creating accessible, inclusive, and equitable living for Romanians with disabilities.

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Appendix A: Email introduction for Interviews with NGOs

English

Hello, we are a team of four undergraduate students from a small science and technology school in Worcester, Massachusetts, US, called Worcester Polytechnic Institute. Our names are Sophia Calandrello, Charlotte Kokernak, Evelyn Tran, and John Clewley.

We are requesting an interview with a member of your organization about what your organization does and its role in assisting people with disabilities.

This interview will ask about your organization's experience helping people with disabilities and how your organization presents important information to people with disabilities. The goal of this interview is to help our team propose an informative digital tool that will guide the process of seeking a handicap certificate for Romanians with disabilities. Our collaborator, Code for Romania (https://code4.ro/ro), will assist us in reaching this goal.

We will ask for your consent to participate and record this interview prior to its commencement. We will associate your name and organization in our report, and answers will not remain confidential or anonymous.

Completion of this interview should take approximately 30-40 minutes. You may stop at any time or skip any questions presented. Comments, questions, and concerns can be addressed at gr-C-Labs-D22@wpi.edu.

This email will be accompanied by an email invite to our interview [DATE] at [TIME EEST] with a zoom link.

Română

Bună ziua, suntem o echipă de patru studenți de la o mică școală de știință și tehnologie din Worcester, Massachusetts, SUA, numită Worcester Polytechnic Institute. Numele noastre sunt Sophia Calandrello, Charlotte Kokernak, Evelyn Tran și John Clewley.

Solicităm un interviu cu un membru al organizației dumneavoastră despre ceea ce face organizația dumneavoastră și rolul acesteia în asistența persoanelor cu dizabilități.

Acest interviu va întreba despre experiența organizației dumneavoastră în a ajuta persoanele cu dizabilități și despre modul în care organizația dumneavoastră prezintă informații importante persoanelor cu dizabilități. Scopul acestui interviu este de a ajuta echipa noastră să propună un instrument digital informativ care să ghideze procesul de căutare a unui certificat de handicap pentru românii cu dizabilități. Colaboratorul nostru, Code for Romania (https://code4.ro/ro), ne va ajuta în atingerea acestui obiectiv.

Vă vom cere acordul pentru a participa și a înregistra acest interviu înainte de începerea acestuia. Vă vom asocia numele și organizația în raportul nostru, iar răspunsurile nu vor rămâne confidențiale sau anonime.

Finalizarea acestui interviu ar trebui să dureze aproximativ 30-40 minute. Vă puteți opri în orice moment sau puteți sări peste orice întrebări prezentate. Comentariile, întrebările și preocupările pot fi adresate la gr-C-Labs-D22@wpi.edu.

Acest e-mail va fi însoțit de o invitație prin e-mail la interviul nostru [DATE] [TIME] cu un link Zoom.

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Appendix B: Signed Informed Consent Agreements

Informed Consent Agreement for Participation in a Research Study

Investigators: John Clewley, Sophia Calandrello, Charlotte Kokernak, Evelyn Tran

Contact Information: gr-c-labs-d22@wpi.edu

Title of Research Study: Accessible Digital Tools for Romanians with Disabilities

Sponsor: Code for Romania: Civic Labs

Introduction

You are being asked to participate in a research study. Before you agree, however, you must be

fully informed about the purpose of the study, the procedures to be followed, and any benefits,

risks or discomfort that you may experience as a result of your participation. This form presents

information about the study so that you may make a fully informed decision regarding your

participation.

Purpose of the study: The goal of this study is to find the information we need to design a digital

tool that will outline and simplify the process of receiving a handicap certification in Romania for

people with disabilities. The purpose of interviewing/creating a questionnaire is to learn more

about the Romanian handicap certificate and its process from people who have experienced it or

heard about the experience.

Procedures to be followed: We will request participation via email or social media. Introduction

to each study procedure will start with an introduction to our project, explaining their right to

refuse any questions, and recording consent to participate with a digital signature or verbal audio-

recorded consent. Participation in the interview should take 30 minutes.

Risks to study participants: There are no foreseeable risks of participating in this survey.

Benefits to research participants and others: No benefits for study participants.

Record keeping and confidentiality: Study records will be kept by the investigators. Only the investigators will have access to the records. Study participants will not be required to identify themselves or reveal any information about their demographics.

Records of your participation in this study will be held confidential so far as permitted by law. However, the study investigators, the sponsor or it's designee and, under certain circumstances, the Worcester Polytechnic Institute Institutional Review Board (WPI IRB) will be able to inspect and have access to confidential data that identify you by name. Any publication or presentation of the data will not identify you.

Compensation or treatment in the event of injury: There is no risk of injury or harm from this survey. There is no compensation or treatment in the event of an injury. You do not give up any of your legal rights by signing this statement.

For more information about this research or about the rights of research participants, or in case of research-related injury, contact:

- gr-c-labs-d22@wpi.edu
- Worcester Polytechnic Institute IRB Manager Ruth McKeogh, Tel. 508 8316699, Email: irb@wpi.edu
- Worcester Polytechnic Institute Human Protection Administrator Gabriel Johnson, Tel.
 508-831-4989, Email: gjohnson@wpi.edu

Your participation in this research is voluntary. Your refusal to participate will not result in any penalty to you or any loss of benefits to which you may otherwise be entitled. You may decide to stop participating in the research at any time without penalty or loss of other benefits. The project investigators retain the right to cancel or postpone the experimental procedures at any time they see fit. Should a participant wish to withdraw from the study after it has begun, the following procedures should be followed: contact gr-c-labs-d22@wpi.edu. There are no consequences for early withdrawal for the subject.

By signing below, you acknowledge that you have been informed about and consent to be a participant in the study described above. Make sure that your questions are answered to your satisfaction before signing. You are entitled to retain a copy of this consent agreement.

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Date: __2022/03/22_____

Elena Georgiana Pascu

Date: 2022/03/22

Study Participant Signature

Elena Georgiana Pascu

Study Participant Name (Please print)

Scalandrello

Signature of Person who explained this study

Special Exceptions: Under certain circumstances, an IRB may approve a consent procedure which differs from some of the elements of informed consent set forth above. Before doing so, however, the IRB must make findings regarding the research justification for different procedures (i.e. a waiver of some of the informed consent requirements must be necessary for the research is to be "practicably carried out.") The IRB must also find that the research involves "no more than minimal risk to the subjects." Other requirements are found at 45 C.F.R. §46.116.

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Acord de consimțământ informat pentru participarea la un studiu de cercetare

Anchetatori: John Clewley, Sophia Calandrello, Charlotte Kokernak, Evelyn Tran

Informații de contact: gr-c-labs-d22@wpi.edu

Titlul studiului de cercetare: Instrumente digitale accesibile pentru românii cu dizabilități

Sponsor: Cod pentru România: Civic Labs

Introducere

Vi se cere să participați la un studiu de cercetare. Cu toate acestea, înainte de a fi de acord, trebuie

să fiți pe deplin informat cu privire la scopul studiului, procedurile care trebuie urmate și orice

beneficii, riscuri sau disconfort pe care le puteți experimenta ca urmare a participării

dumneavoastră. Acest formular prezintă informații despre studiu, astfel încât să puteți lua o decizie

pe deplin informată cu privire la participarea dumneavoastră.

Scopul studiului: Scopul acestui studiu este de a găsi informațiile de care avem nevoie pentru a

proiecta un instrument digital care va contura și simplifica procesul de primire a certificării de

handicap în România pentru persoanele cu dizabilități. Scopul intervievării/creării unui chestionar

este de a afla mai multe despre certificatul de handicap românesc și despre procesul acestuia de la

persoane care l-au experimentat sau au auzit despre experiență.

Proceduri de urmat: Vom solicita participarea prin e-mail sau rețelele sociale. Introducerea

fiecărei proceduri de studiu va începe cu o introducere în proiectul nostru, explicând dreptul lor de

a refuza orice întrebări și înregistrarea consimțământului de participare cu o semnătură digitală sau

consimțământ verbal înregistrat audio. Participarea la chestionar ar trebui să dureze 5-10 minute.

Participarea la interviu ar trebui să dureze între 30 de minute și o oră.

Riscuri pentru participanții la studiu: Nu există riscuri previzibile ale participării la acest

sondaj.

Beneficii pentru participanții la cercetare și pentru alții: Nu există beneficii pentru participanții

la studiu.

Păstrarea evidenței și confidențialitatea: Înregistrările studiului vor fi păstrate de anchetatori. Doar anchetatorii vor avea acces la înregistrări. Participanții la studiu nu vor fi obligați să se identifice sau să dezvăluie informații despre demografia lor.

Înregistrările participării dumneavoastră la acest studiu vor fi păstrate confidențiale în măsura permisă de lege. Cu toate acestea, anchetatorii studiului, sponsorul sau desemnatul acestuia și, în anumite circumstanțe, Consiliul de revizuire instituțional al Institutului Politehnic din Worcester (WPI IRB) vor putea inspecta și avea acces la datele confidențiale care vă identifică după nume. Orice publicare sau prezentare a datelor nu vă va identifica.

Despăgubiri sau tratament în caz de vătămare: nu există niciun risc de vătămare sau vătămare din acest sondaj. Nu există compensație sau tratament în cazul unei răni. Nu renunțați la niciunul dintre drepturile dumneavoastră legale prin semnarea acestei declarații.

Pentru mai multe informații despre această cercetare sau despre drepturile participanților la cercetare sau în caz de vătămare legată de cercetare, contactați:

- gr-c-labs-d22@wpi.edu
- Directorul IRB al Institutului Politehnic din Worcester Ruth McKeogh, Tel. 508 8316699,
 Email: irb@wpi.edu
- Administrator pentru protecția umană a Institutului Politehnic din Worcester Gabriel Johnson, Tel. 508-831-4989, e-mail: gjohnson@wpi.edu

Participarea dumneavoastră la această cercetare este voluntară. Refuzul dvs. de a participa nu va duce la nicio penalizare pentru dvs. sau nicio pierdere a beneficiilor la care ați avea dreptul altfel. Puteți decide să opriți participarea la cercetare în orice moment, fără penalități sau pierderea altor beneficii. Anchetatorii proiectului își păstrează dreptul de a anula sau amâna procedurile experimentale în orice moment consideră necesar. În cazul în care un participant dorește să se retragă din studiu după ce acesta a început, trebuie urmate următoarele proceduri: contactați gr-c-labs-d22@wpi.edu. Nu există consecințe pentru retragerea timpurie pentru subiect.

Prin semnarea mai jos, luați la cunoștință că ați fost informat și sunteți de acord să participați la studiul descris mai sus. Asigurați-vă că întrebările dvs. primesc un răspuns satisfăcător înainte de a semna. Aveți dreptul să păstrați o copie a acestui acord de consimțământ.

	Data: 31.03.2022
Semnătura participantului la studiu	
Ungureanu Diana-Valentina	
Numele participantului la studiu (vă rugăm să impr	imați)
Chulot Zopuk	
	Data: 3/31/2022

Semnătura persoanei care a explicat acest studiu

Excepții speciale: în anumite circumstanțe, un IRB poate aproba o procedură de consimțământ care diferă de unele dintre elementele consimțământului informat menționate mai sus. Înainte de a face acest lucru, totuși, IRB trebuie să facă constatări cu privire la justificarea cercetării pentru diferite proceduri (adică o renunțare la unele dintre cerințele de consimțământ informat trebuie să fie necesară pentru ca cercetarea să fie "realizată în mod practic"). IRB trebuie, de asemenea, să găsească că cercetarea implică "nu mai mult decât un risc minim pentru subiecți". Alte cerințe se regăsesc la 45 C.F.R. §46.116.

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Acord de consimțământ informat pentru participarea la un studiu de cercetare

Anchetatori: John Clewley, Sophia Calandrello, Charlotte Kokernak, Evelyn Tran

Informații de contact: gr-c-labs-d22@wpi.edu

Titlul studiului de cercetare: Instrumente digitale accesibile pentru românii cu dizabilități

Sponsor: Cod pentru România: Civic Labs

Introducere

Vi se cere să participați la un studiu de cercetare. Cu toate acestea, înainte de a fi de acord, trebuie

să fiți pe deplin informat cu privire la scopul studiului, procedurile care trebuie urmate și orice

beneficii, riscuri sau disconfort pe care le puteți experimenta ca urmare a participării

dumneavoastră. Acest formular prezintă informații despre studiu, astfel încât să puteți lua o decizie

pe deplin informată cu privire la participarea dumneavoastră.

Scopul studiului: Scopul acestui studiu este de a găsi informațiile de care avem nevoie pentru a

proiecta un instrument digital care va contura și simplifica procesul de primire a certificării de

handicap în România pentru persoanele cu dizabilităti. Scopul intervievării/creării unui chestionar

este de a afla mai multe despre certificatul de handicap românesc și despre procesul acestuia de la

persoane care l-au experimentat sau au auzit despre experiență.

Proceduri de urmat: Vom solicita participarea prin e-mail sau rețelele sociale. Introducerea

fiecărei proceduri de studiu va începe cu o introducere în proiectul nostru, explicând dreptul lor de

a refuza orice întrebări și înregistrarea consimtământului de participare cu o semnătură digitală sau

consimțământ verbal înregistrat audio. Participarea la chestionar ar trebui să dureze 5-10 minute.

Participarea la interviu ar trebui să dureze între 30 de minute și o oră.

Riscuri pentru participanții la studiu: Nu există riscuri previzibile ale participării la acest

sondaj.

Beneficii pentru participanții la cercetare și pentru alții: Nu există beneficii pentru participanții la studiu.

Păstrarea evidenței și confidențialitatea: Înregistrările studiului vor fi păstrate de anchetatori. Doar anchetatorii vor avea acces la înregistrări. Participanții la studiu nu vor fi obligați să se identifice sau să dezvăluie informații despre demografia lor.

Înregistrările participării dumneavoastră la acest studiu vor fi păstrate confidențiale în măsura permisă de lege. Cu toate acestea, anchetatorii studiului, sponsorul sau desemnatul acestuia și, în anumite circumstanțe, Consiliul de revizuire instituțional al Institutului Politehnic din Worcester (WPI IRB) vor putea inspecta și avea acces la datele confidențiale care vă identifică după nume. Orice publicare sau prezentare a datelor nu vă va identifica.

Despăgubiri sau tratament în caz de vătămare: nu există niciun risc de vătămare sau vătămare din acest sondaj. Nu există compensație sau tratament în cazul unei răni. Nu renunțați la niciunul dintre drepturile dumneavoastră legale prin semnarea acestei declarații.

Pentru mai multe informații despre această cercetare sau despre drepturile participanților la cercetare sau în caz de vătămare legată de cercetare, contactați:

- gr-c-labs-d22@wpi.edu
- Directorul IRB al Institutului Politehnic din Worcester Ruth McKeogh, Tel. 508 8316699,
 Email: irb@wpi.edu
- Administrator pentru protecția umană a Institutului Politehnic din Worcester Gabriel Johnson, Tel. 508-831-4989, e-mail: gjohnson@wpi.edu

Participarea dumneavoastră la această cercetare este voluntară. Refuzul dvs. de a participa nu va duce la nicio penalizare pentru dvs. sau nicio pierdere a beneficiilor la care ați avea dreptul altfel. Puteți decide să opriți participarea la cercetare în orice moment, fără penalități sau pierderea altor beneficii. Anchetatorii proiectului își păstrează dreptul de a anula sau amâna procedurile experimentale în orice moment consideră necesar. În cazul în care un participant dorește să se retragă din studiu după ce acesta a început, trebuie urmate următoarele proceduri: contactați gr-c-labs-d22@wpi.edu. Nu există consecințe pentru retragerea timpurie pentru subiect.

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Prin semnarea mai jos, luați la cunoștință că ați fost informat și sunteți de acord să participați la

studiul descris mai sus. Asigurați-vă că întrebările dvs. primesc un răspuns satisfăcător înainte de

a semna. Aveți dreptul să păstrați o copie a acestui acord de consimțământ.

Data: 01.04.2022

Semnătura participantului la studiu

Etelka Czondi

E Ozridi

Numele participantului la studiu (vă rugăm să imprimați)

Scalamarello

Data: April 1, 2022

Semnătura persoanei care a explicat acest studiu

Excepții speciale: în anumite circumstanțe, un IRB poate aproba o procedură de consimțământ care diferă de unele dintre elementele consimțământului informat menționate mai sus. Înainte de a face acest lucru, totuși, IRB trebuie să facă constatări cu privire la justificarea cercetării pentru diferite proceduri (adică o renunțare la unele dintre cerințele de consimțământ informat trebuie să fie necesară pentru ca cercetarea să fie "realizată în mod practic"). IRB trebuie, de asemenea, să găsească că cercetarea implică "nu mai mult decât un risc minim pentru subiecți". Alte cerințe se regăsesc la 45 C.F.R. §46.116.

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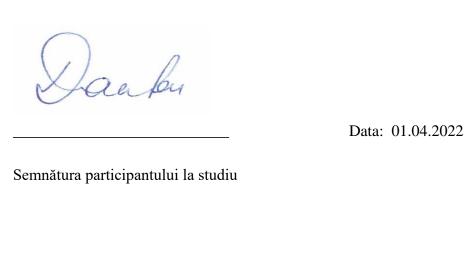
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TONTSCH DANIELA

Numele participantului la studiu (vă rugăm să imprimați)

Sclandrello ______ Data: ____01.04.2022

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Appendix C: Interviews with NGOs: Introduction and Questions

"Hello, my name is ____ and I will be conducting our interview today. This is ____ who will be taking notes. You are being asked to participate in a research study. Before you agree,

however, you must be fully informed about the purpose of the study, the procedures to be followed, and any benefits, risks or discomfort that you may experience as a result of your participation. This form in this Zoom chat presents information about the study so that you may make a fully informed decision regarding your participation. The purpose of this study is to understand complexities people with disabilities face when seeking a handicap certification and determine the best practices to present information through a digital application. Our team is conducting research for Worcester Polytechnic Institute in the U.S. with the purpose of creating a digital tool to help people with disabilities in Romania to have an easier time navigating the process of receiving a handicap certificate. Thank you for taking time to answer questions about your organization and experience in helping people with disabilities. This interview should take no more than 40 minutes. There is no risk when participating in this study. We need to inform you that information given in this interview will not be confidential, and your name, any quotes you say during this interview, or your organization's name may be attached to our final report. However, if you wish to exclude your name or any quotes, please let us know and we will remove it. You are allowed to stop the interview or skip any questions. We plan on recording this interview in order to transcribe it at a later time. The link we sent in the Zoom chat is a consent form outlining the information we just covered. If we have your consent to participate in this interview, could you sign your name on this form?"

If yes, begin recording. Confirm "Now that we are recording, can you confirm we have your permission to record?"

- C1. What do you know about the handicap certification process in Romania?
- C2. How does your organization provide information online?
 - a. A website or mobile app with a list of information or a decision flowchart?
- C3. Has your organization helped people with disabilities get certified?
 - b. What have you heard from people who have tried to go through the certification process?
 - c. What are some difficulties that you see in the process?
- C4. What could help make the process go smoother or become easier to navigate?

CRJ

- C5. What way will the procedure change?
- C6. Is the procedure different for the different kinds of disabilities?

CRJ and **AMAis**

- C7. Who else would you recommend that we talk to? And do you have a contact?
- C8. Can you have a look at our survey?

Appendix D: Centrul de Resurse Juridice (CRJ) Coded Transcript

SC: Sophia Calandrello (Interviewer) | GP: Georgiana Pascu (Interviewee) | LM: Laura Micle

SC: What do you know about the handicap certification process in Romania?

GP: So the name of this is, you know, that in Romania we are still struggling between these two terms disability and handicap. We still have in the Constitution the word "handicap". But we also ratified it almost more than 10 years ago. So in 2010, the UN Convention on the Rights of Persons with Disabilities, and according to the Romania legal system if we ratify a human rights treaty then this can be applied and it's kind of above the constitution, so we should use the word disability. It's true that in all the legislation, as the law for the rights of persons with handicap Romanian legal framework is still using the word "handicap". So in Romania we have this certificate for the persons with handicap, which is actually disability. So this is the kind of administrative document that should be provided in order to a person with a disability or with a number of disabilities, in order to have access to social and financial benefits. Now we documented this for a while, and it seems to be in contradiction with the human rights treaties and the UNCPD Convention in terms of who should recognize the disability of a person. So according to Romanian legislation, this certificate, in order to receive this certificate, you have to provide to the local administration with a number of documents: proof. How much do you know about our administrative social work and legal system? Maybe I should tell you like the institutions, where they are and which one should provide with the certificate, because there are kind of different levels.

SC: We know there's the National Authority. And then underneath that there's the Ministry of Labor and Social Protective Services, we know that they have to go through multiple appointments and have various documents that they have to provide in order to be considered a person with disabilities and then also to later get their certificate.

GP: Okay. So first of all, the person that considered that she or he is entitled to receive a certificate of disability, that proved the disability, they should fill in a request and put together a number of documents at the county directorate for social work and child protection. This is one at every county level, and in order to, I mean this, ? should provide with a social work evaluation, and this should be done by the social worker from the diplomacy level of that person. Then are a number of medical evaluation and psychological evaluation depending on the disability, if it's a physical disability or a visual, hearing, psychiatric, or intellectual disability. When all of these papers are put together, there is a commission at the county level under the County Council, and there are meetings established. The person should appear in front of this commission, and should prove again that she or he has a disability. This is something that, historically speaking, people are complaining in Romania, because they have to travel sometimes from very far away from rural area, and they consider that the treatment it's humiliating, because they have to I know wait like a number of hours, then actually the member of the Commissions, they will only, the Commission, they will only check the documents. They don't really analyze, because they have no, they are not specialized in different fields, and then they put a stamp, and then is the certificate. The problem, then with the certificate is that, according to the law, if a person with disabilities is unhappy with the result, like I don't know they were not recognized as having a disability or, as most of the

people are asking for the most severe grade of the disability in order to receive another amount of benefits in financial and social benefits. They can appeal against this certificate, but they have to appear direct to the county level court, which is the tribunal in Romania, and they have no access to legal pro bono support, and most of them don't know how to fill in the petition at the Court, how to ask for a lawyer, and there is no free legal aid access for them.

SC: Do you know if there's a different process for people with different types of disabilities, whether it's psychiatric or mental, or physical?

GP: I think most of the people that have intellectual or mental health problems. The problem in Romania is that we have psychiatric disability, mental disability and associated disability. So, we are still using the? terms, the old terms, not mental health problems or psychosocial disabilities for psychiatric, and we don't have the term intellectual disabilities. We have the term mental, probably, and then is associated disability for these two, and maybe other physical visual or hearing disabilities. But then are the others, the other disabilities for different somatic illness, like diabetes, or respiratory, or something. So, people in direct or and psychiatric disabilities are considered themselves like being more discriminated when they have to access this evaluation, because they consider that sometimes it's not objective, and they have to be sometimes hospitalized in psychiatric hospitals against their will. And then again, then there is the humiliation. And yeah, I know, with these invisible disabilities is very hard to prove them. This kind of common problem worldwide. Then I also own discussions around the evaluation of the degree of disability, again, of children with intellectual or psychosocial or mental health disabilities, or neurological disabilities. Here again parents are complaining about the fact that they should be hospitalized for a very long period of time with their children, or the use in order to be reevaluated. This is what that I know also, because at the Center for Legal Resources we are working to prevent or to represent people with, persons with intellectual and psychosocial disabilities that were and abused or their rights were not respected. Yeah, most of the people actually are asking, and here is this the discussion around people with severe disabilities that need someone to take care of him, of them. In Romania, we have this institution of personal assistant, so the person assistant should be someone that is employed by the person, and is paid by the Mayor office, or by the person to take care of that particular person with disabilities. The problem is that the State is paying for like 8 hours, the minimum salary in Romania, which is really really I don't know how it is, but it's not enough. But the person should be like supervised or taking care for 24 hours per 7 days, and they don't have holidays, we don't have for respite care services.

SC: **Do you have any ideas on what could make the process go smoother?** So our project is creating a digital tool. So we imagine, like putting together all the resources they need in one spot. It could either be a mobile app or a website whatever, like we figure out based on our surveys. Do you have any suggestions for that? Based off of like the challenges you've heard?

GP: The idea is that I know that the legal framework in Romania will change in the next one or 2 years. But you can never be too optimistic with changes in Romania in terms of legislation for these people. So the problem is like in between I know a year will have like a revolution in this area. I don't know what to think based on my experience, we'll see this after 20 years.

Probably so. The problem is that actually, every person will fill in an application, and they will receive automatically a certificate of disability if they will respond to some questions and then

there will be actually an evaluation of needs because there might be persons, for instance, if you want to get access to free legal aid. I'll give you an example, for some cases you have to prove to the judge that you had a disability. Even if you don't have a leg or don't hear and it is something you can prove like physically. I'm not thinking now about intellectual and mental health because this is really hard to prove. The judge will not consider you as a person with disabilities if you don't have the certificate which is an administrative document. But there are persons that don't want to be registered within the social assistance, and I know benefits in the Romania, and also they don't live with that, I don't know, \$100 per month. But what they need to get access like don't pay taxes. or don't pay the electricity because now is this discussion about electricity, don't want to pay the lawyer for some court taxes. They have to prove that they have this disability. So the system, if it, if will change, will give you the proof that you have disability, but then, if you want some social and financial benefits, you'll have to pass through specific evaluation, and after that the system will say, Okay, you are entitled to receive this and this and this. So the system will change in the future to have this kind of web platform and other kind of I know how digital this will be. Now, for the moment, I think this kind of a web platform now digital application that you are considering to develop it will be very useful, but you'll have to take into consideration also the social context in Romania. Most of the people that have a disability in Romania are poor. They don't have I know I mean, yeah, Internet here is not so expensive as in US. So most of the people have Internet but they don't have laptops that don't have that I don't know kind of cell phone, computer. So we'll have to see if we have this kind of application. Maybe they will have to use the social worker office from the village level to fill in the application on one computer from from the office, if there is a computer there. So this is one thing. The other thing is to they need to have this application as adaptive. Adapt? Is the world adaptive as possible. Oh, no I mean i'm not speaking about people with hearing disabilities because they can fill in without hear something. But for people with visual disabilities Also, there are plenty of tools that you can use, and they can use. But I'm speaking again about people with intellectual, and mental health problems, but mainly with intellectual. So you might need to have pictograms for them in order to explain them, so here download the documents and maybe put some pictograms with the type of the documents, if they don't know how to read. Maybe they don't understand the words. So there should be a part of the pictograms like what the name? easy to read language.

SC: Yes

GP: Is it easy to read? Yeah easy to read language to use in the I mean, not that legal words that we are using, and they don't understand anything.

SC: Just keep it simple.

GP: Exactly. Yeah. Oh, then, it's also a discussion here in Romania because we are not like Estonia that have everything electronically and digital. The problem is that here we have some public administration offices that are accepting documents in digital format. And then, when the person is at the commission for the evaluation they can't check the documents. But we are still in that era where people should put something like this. The word file at the administrative level. but who knows? Maybe with this kind of platforms local administration will change. So I think this I mean in any case then they don't pay for this, so they should be happy with this kind of tools. There should be a training for the local administration, how to use this, how to print did these documents

and how they can register, because I think it's also most more comfortable for more easy for public servant to receive this kind of paper, and just, you know, put a on the table of the member of the Commissions instead of printing, put them number in the pages, and do you know the word process. Oh, also, but I think this for people that cannot afford to travel or they're alone, or they're scared, or they live in the very remote rural area. This is a possibility that should be taken into consideration.

SC: There's only 10 min left. Correct? or 5 min left?

GP: 10.

SC: Okay, Well, in that case we have a survey that we're gonna send out to people with disabilities. It isn't too long. We were wondering if you could either look at it or if we don't have time to look at it you could just give us some recommendations on what you would ask people with disabilities that would help us create a better website or something. Okay, so at the beginning we just have demographic questions.

GP: Should I put my name here? At the 'I consent to participate'? I don't know

SC: No

GP: Okay, because I don't know how to fill in the

SC: You don't have to fill anything in it. I'll just more take feedback right Now, Yeah, this is what we are planning to submit through like NGO email lists or post on Facebook, to hear directly from people with disabilities after the interviews.

GP: Okay, so do you need me to check and give you feedback? At this questionnaire?

SC: Yeah. If you have time, we would absolutely love that. The question at the bottom will have to do like with what difficulties they had, and the benefits of the certificate and stuff about like mobile usage. We ask if they have phones, or if they prefer to use laptops and stuff.

GP: I can, If you allow me, I can put you in contact, and I can only check with my, with my colleagues from there is an NGO called [Romanian NGO name]. They are self advocates. So all of the members are persons with disabilities, all kind of disabilities. And usually when I have to check something I'm checking with them, and I'm asking them if they understand the language, or if they have any problems. Some of them speak English and if they don't speak they have a support person that can help them. I was wondering if you, if you want to be in touch with them, because they can help you a lot, and I feel more comfortable not to speak on their behalf.

SC: That would be amazing. You can either send us their email and we can send them the survey. We also have the survey in Romanian so if they don't speak English, then that's translations that we can make. Are there any other NGOs that you would be able to get us in contact with, either to submit the survey or do interviews with?

GP: I can, I mean, I know, plenty of NGOs that work with people with disabilities. And I can send them an email and introduce you.

SC: That'd be amazing

GP: I'll tell we spoke, and I'm in touch with you, and I will kindly ask if they can check the questionnaire, or if they have time for an interview with you if you want?

SC: Yeah, so we can send you an email after this with both links to the surveys, if possible. And then you can reach out to them, and then, if they can get back to that would be great. So far.

GP: Ok, so you want me to check this questionnaire that you sent to me right now?

SC: I don't need an answer right now, so if you'd like to do that later.

GP: Okay, because I want to read this properly.

SC: Yep, no problem.

GP: Can you also send to me the Romanian language?

SC: Yes,

GP: Just to check if the words are like our Romanian words.

SC: Yes

LM: I've had the first check on the Romanian but I think it's, and it needs another check today. I changed some of the phrasing again in some of the questions, but I will also have another look at the end. As Georgiana was saying, given that umm like mmm some of these people might have difficulties in understanding the question if it's not like really like straightforward in the way, right. We, yeah, we can simplify as much as we can.

GP: I can also check for, and I think this is also in English. I work at the research that was done at the end of last year on the evaluation on access to certificates of disabilities. And there were also plenty of information collected between interviews and statistical data about how people with disabilities get access to this certificate. If you want, I can check and see if this is public. If it's not public, I have to ask for permission and sent to you. I realize now, when I read your questions about its Q.2 page 4. And I remember that we had such questionnaires at that moment, and also interviews with people, and how they get the certificate. And also these were inter- I mean, we have some people that were worked on research and interview public servants, medical professions, and others.

SC: That would be great information to have. We will absolutely take that. You can either send that to Laura or directly to us. My email is... I sent you an email yesterday. You can just send it right there.

GP: So again, let's do my checklist so I will check for your questionnaire. Yes, and give you feedback

LM: On the Romanian version. I-

GP: Okay

LM: I think it's the best

GP: Okay on the Romanian version. I will check for this research and find out if it's public, or if it's not, see what can I do? *Romanian* And I will also speak with my colleagues from *NGO name in Romanian*, and I will check with other NGOs and put you in contact with... introduce you, and then you will follow up.

LM: yeah, just a few or one or two which you think are like relevant or good to help us with this.

SC: Yeah just a couple

GP: What do you mean by just a couple?

LM: Just a few of them like one or two for starts? So it's not

GP: Yeah. I didn't think of more than three.

LM: Yeah. Also, do you know, if the law project is available anywhere about the new procedure.

GP: As far as I know, there is nothing because the new procedure was not elaborated yet. They are discussed in this in one or two, three years.

LM: And you are... Are you involved in the talks there as well?

GP: A little bit. I studied, uh like a very, very small part of the appears mechanism(?), but I was involved in all the meetings when people presented the data on the data collections and interviews with people with disabilities, and interviewing judges and just analyzing the legal part of the meeting. I know they're working I know, I mean I'm also so, but I'm not in charge of this yet. I mean I don't have this part on providing with the future. What's the name? Questionnaires on you know the stuff that they are evaluating: medical, psychosocial, physical stuff. But I'm kind of part of the team so I'm hearing everything. But I have to analyze just a small amount of information. But I will check. And yeah, I'll tell you. On the other hand, what you are doing, I think it's something that can be done, now, very soon. I wouldn't wait for this project. I was thinking a lot in the last days. This could be like a pilot. If it's working in this stage, then this can be replicate in the in the future, if they have a platform of something. And Laura. I know governments, they are always like promising digital people, but in the end, it's not too much. So I think it's better to start with your application and see how it's going.

LM: Yeah, we'll do that

SC: I think that should be everything

GP: Yes

SC: Thank you so much, thank you so much.

GP: I thank you as well because you are doing this for us and I will send you this information. I will check. Just send in the meantime, if you have any other questions, you can email me.

Appendix E: Asociația Metodelor Alternative de Integrare Socială (AMAis) Coded Transcript

ET: Evelyn Tran (Interviewer) | AC: Alexandru Cucu (Interviewee) | LM: Laura Micle (C4R)

ET: Okay, So let's get started. I guess the first question we want to ask is, what do you know about the handicap certification process?

AC: I know information, and before, before the pandemic period I have information. And it's necessary to collect model documents from, I don't know, two or three medical forms from doctors, and also go back to the General Directory for the person with disability. Excuse me one moment.

LM: Yeah, we don't know the name either.

AC: It's a bitch. like the direction for people with disabilities in every state. There is one in every county.

LM: County. You have this direction (directory), and they're 42. One for, yeah, for every county.

AC: Yeah, it's a state direction in every county, and the people with disabilities go with parents or something to give the one director with more documents, and wait for a commission. This direction (directory) makes a commission for the proof and establishes a grade of disability, because in Romania we have right now four disability grades. Also.. Laura can help me.Complete complete disability, accentuated.

LM: yeah it's like, severe, maybe like severe disability. I am not sure.

AC: It's a complete disability and for the blind, for blind it's established if people see before one meter. Also Grade 2, its before 3 meters. And another another 2. It's all... details are in law Ledger. In no of 418 per 2006.

LM: It's 410. Yeah, I put it on 410 or 2006.

ET: Okay, yeah. I think I did look into that, that law.

AC: And this information or with all documents or something was and I don't know if right now it's on a website from the disability authority.

LM: Yeah, I think It's on every directory or DGASPC

AC: No its on the National Disability Authority.

LM: Okay, Okay, Okay, Okay, yeah.

AC: *Romanian...* from Work Ministry.

LM: Okay. Okay, yeah.

AC: And they are uh. What was this procedure on? No, No, I don't know if it is right now on website because it's only one page with documents and the technology can can help in this process in my opinion, with transfer documents and between different authorities also can be better to transfer also with doctor and the people go to the doctor, and after can.

LM: I get what you're saying like she what's the possible *Romanian*

AC: *Romanian*

LM: Okay, yeah. So Alex is suggesting that well, it would be great if all the parties involved in obtaining this certificate, would be, could access this platform. And, for example, If the doctors could fill in the form there and also the direction for social protection can also make their evaluation there. So the person who has to order, or the person who accompanies them. The person who has obtained the certificate doesn't have to do all this, like to obtain all these papers physically, and do all these journeys. So it would be nice, Yeah, to have this not only the information, but like a place where everybody can provide the input.

ET: So, have it in a centralized area for everyone to access.

AC: Oh, yeah, a centralized area. And also for... I don't know, for a person with disabilities is a mobile person. because have a severe mobility disability.

LM: So they could do the interview online. You think?

AC: Yeah, to do an interview online or to talk with doctors and another person to go in one way for every physical document, or something because it's difficult for family to help and transfer 1, 2 more times to the few doctors, to one committee.

LM: Yeah. So it would be great if this would help them schedule everything in one go and not do multiple journeys to the several doctors in one go. Just have it in, just somehow, in one day.

AC: Or especially if people are in a village, or Yeah, yeah

LM: So it's because there is only one place where you can submit all these documents in every county. It would be great to do it. Not have to travel. To do it online,

AC: To do what, to get the information easier. Not that particularly for this project is to write more information in Easy reading. Easier to read for everyone, because sometimes education is low. Right now, in Romania, we are 8% disability employed with every grad(e?). Every disability.

LM: Okay, So just 8%. Yeah,

AC: just 8%. 8, 8, 8, 8, 8.

LM: Okay, 8% are employed.

AC: Oh, okay, yeah, yeah, that's uh. talking about making the information accessible. That's what we talked to Georgiana from another NGO from CRJ, and she said the same thing: that It's very important to make the text very easy to understand, you know.

ET: Keeping the language simple. That's definitely something that we want to look into. Do you have any suggestions on, because I know your organization does work with creating accessible applications, and do you have any suggestions on how we can best present our information online?

AC: Oh, I don't know if you know more information about me, or AMAis. I'm Alex, I'm a programmer and working in a company, and [I] also work with AMAis, Alternative Methods for Social Integration. and we promote and try to integrate in Romania inclusive design with architecture and technology, and to make an inclusive society. And we, an application we have information, more more information about structure. We don't have any specialized person for disability. it's begun filled because domain about text reading for different persons. a person for if our narrow is motor of disability or learning disability, or another, we have information for the structure, or the another information. Structure, to be easier to access different points, to use, to read tables, or something with screen readers, with magnifiers, and something.

LM: Do we find this information on AMAis somewhere.

AC: Yea.

LM: That's great.

AC: Right now it's in Romanian. AMAis website. And I find presentations in English about them.

ET: Okay, Yeah, We'll be sure to check out your website. I was actually looking at the website earlier.

LM: I have also had the look a few days ago, and I thought it was really great. I hadn't yeah. I hadn't known about AMAis. I lived in a different city, so I don't know a lot of that is happening in Bucharest. So I was very impressed that this organization exists and definitely studied in more detail.

AC: Yeah, we tried to learn from all persons. We have services with inclusive design and more social projects. One of them is an Urban mobility club. In this club, we organize events with people, with blind people and able people with sleeping masks too and everyone knows learn to cook on, blind, to work with a cane, to use technology, and something.

LM: Oh, this nice, really nice.

AC: Yeah, Yeah, Also we have an online response for the pandemic period, because we don't have we, Don't we, can't have events with more more people, we make Cmu talks. It's an online, a series of events to talk about more information from, I don't know, cooking too, of how you protect on online, you know, in online, protect your credit card, and also talk about inclusive devices. Because we have inclusive devices, and we don't know more information. This information about I mean iot devices, for example, because I have a washing machine with Wi-fi and right now I can set the program from my phone. Also I think of another washing machine. It's necessary to learn and to have buttons, if doesn't have buttons we try to I don't know touch.

LM: Yeah, I think that's also useful for people with motor disabilities, or to know these kind of things.

ET: Yeah, Just in regards to time, we have about 8 minutes. We also wanted to ask if you had any other contacts to other NGOs that we could possibly talk to, to interview as well.

AC: I don't know right now, I ask and provide to Laura for contact

.

ET: Yeah, Yeah, if you could send that whenever you could. It's okay if you don't have it right now, but that would be really helpful. We also have, we have, we were planning on setting out a survey to people with disabilities, so we can get a better understanding of their experience with the certification process and also like more of their general technology usage. We were wondering if you had any like suggestions on questions and things. I don't know if you would mind reviewing it I think it might be a little difficult, because there a lot of questions. But if you, if you have like a sample survey that you guys have used in the past, maybe we can like refer to those kinds of questions so it can better help our our prototype.

AC: Also more information about people with disability can be get from, can be requested from the national law disability authority.

ET: Okay.

AC: Also, they have more data.

ET: Yeah, Okay, we can definitely take a look at that. Do you know if that's on their website? Like to be able to request that information?

AC: One moment. This is the official website.

ET: Okay, thank you so much. We'll definitely take a look at that.

AC: Also. Oh, yeah, they publish a lot of information. Also, I see, I see the report I don't know mean best one year they have public information about, I don't know, what's the number of blind people and side chair people, or something.

ET: Okay, Yeah, we'll take a look at the site. and see those annual reports for sure. Thank you for that.

AC: I don't have exactly... I read this report on this website.

LM: Okay, so they should be here.

ET: Yeah, we'll yeah take a look at that. And then, I guess going back to my earlier question I don't know if your organization does like any sort of surveys when you guys like before you start developing any software or designing websites or anything like that, do you guys, would you guys happen to have suggestions on the types of questions we should ask in regards to accessibility?

AC: Yeah, I have a suggestion for a question and the I don't know if it's a if we were collect important data because the people disability, what some problems with you know for, I don't know, for obtaining certificates [that] are not online.

ET: Okay.

AC: It's another problem for Romania, also, I try to make a community to help other people, now we start from blind people and try to make a community to help other people and other people, because in Romania, we don't have services for integration. If you I don't know *Romanian*

LM: Yeah, if you get to be disabled, there are services for disabled people, like public services.

AC: Public services.

AC: Yeah, we are more. I don't know, few NGOs and the power is not very big to help all people from the country.

LM: It's a problem. That's why many people don't get the certificate because they... they don't know what to do and they don't know where to ask for help, or there are no public services to help with the process also.

AC: In the last 3, 4 years, I see few important changes, because I have this website and the people are online and can generate information on, and the websites, it's important to solve for part of people with disability.

ET: Yeah, for sure.

AC: and also doesn't exist is a very good communication channel with people with disabilities. I made a platform called seeyou. We put together people with disabilities and volunteers to help blind people to go, I don't know, to the concert. there are doctors or something. And also to go running or something. And for volunteers of communication, standard communication channels working and for people with visual impairment, not working. Standard communication channels I don't know, TV, newspapers or something.

LM: And what works?

AC: I don't know. We are searching well, only I see, *Romanian* One people tell to another people,

LM: Word of mouth. Yeah, what is the platform called? Is it public?

AC: yeah it is public. seeyou.ro

LM: see you? S e e?

AC: S E E Y O U.ro And this is the reason why Seeyou in this moment is present only in Bucharest. Because we want to make a model and uh extend the functional model. No, not only the platform and not using, and people not using.

LM: Yeah, So it's people like it's people with and without disabilities, helping people with disabilities.

AC: Yea. people with and without disabilities Yeah, if I go to... I don't know the North rail station so I can help other people. Other blind people if he isn't he isn't independent.

LM: Yeah, Yeah, yeah, that's a great platform.

AC: Yeah, we try to solve a real project. and I tried to share with you what information I have.

ET: Yeah, it's been very useful. I think the platform is very very cool.

AC: Yeah also I used to go to the concert in Suffolk, because I'm blind and I don't have every time a friend or uh one of family members to go with me to the heavy metal concert.

LM: Okay, Okay, okay. So you use it yourself too Yeah. So I think maybe we could integrate it like with our platform for obtaining the certificate. and some people could...

ET: communicate. like having assistance and stuff.

LM: have assistance, when they attend yeah. Yeah.

AC: I'm also the developer and the leader of the project.

LM: Oh, okay.

AC: Develop it. A few programmers. Yeah, I try to make real publication use.

LM: Yeah, yes, it looks great. I've opened it.

AC: We try to increase, especially right now a number of requests from people with disability and the number of accounts for people with disability.

LM: Yeah. Nice nice. Alex. You. Do you think you could read the survey that the girls made? And just if you feel like anything. Like the wording or the question. If you can give us any suggestions.

AC: I can give a suggestion. I'm not treated the survey(?)

LM: Okay.

AC: I don't know right now. Also, I can provide you an email if I have a suggestion. Yeah, I can this weekend.

ET: Yeah, we can send you an email with these surveys. There's an English and a Romanian version, so any suggestions would be really helpful.

LM: I think the Romanian... the Romanian is, enough.

AC: It's the same, yeah? The questions are the same?

ET: Yeah. yeah. The questions are the same. Yeah, I will be sure to send you a follow-up email with that as well as the consent form. I think that concludes our time. Do you have any questions for us?

AC: Oh, I don't have one right now.

ET: Okay, No, that's gonna be fine. Thank you so much. If you could give us your suggestions for the survey and then also if you're able to find a contact from other NGOs that we could possibly survey, that would be super helpful for us. Otherwise, thank you so much. We really appreciate it.

AC: You're welcome. That's good. It's important to try to develop new digital platforms and to digitalize whole information about relation with administration. Something.

LM: Yeah, we are looking at people with disabilities this year. Well start, I think, starting from maybe august we will do like, we'll try to think of more projects and more ideas. But we started a bit early with the group and from Worcester [Polytechnic Institute] University, but we'll be back on the topic with what we will. We'll look more broadly from all this onwards. Okay, Thank you. Thank you, Alex. And when you keep in touch, Yeah.

Appendix F: Council for Disabilities Coded Transcript

SC: Sophia Calandrello (Interviewer) | DT: Daniela Tontsch (Interviewee) | LM: Laura Micle (Translator, C4R)

DT: *Romanian*

LM: I'm also the president of the National Council for Disability, and also the Vice President for the Association for this dystrophic people in muscular dystrophy. "Romanian*

DT: *Romanian*

LM: Vice President in the national organization and the president of the Bucharest association

DT: *Romanian*

LM: The biggest problem is bureaucracy.

DT: *Romanian*

LM: Yes, so the process involves making a lot of trips to these institutions, and the public servants don't have patience to explain what should be done. They use very specialized words. People with disabilities, and their parents, or the people who take care of them, are quite lost.

DT: *Romanian*

LM: And so the website of all the county level agencies, "*Romanian**, they are very very badly made and the information is not easily is not well explained, and they're not not accessible at all.

DT: *Romanian*

LM: So Because there are many institutions involved. First you have to find out which agency you have to go to. Then you have to find out in which direction, where you have to apply for the social evaluation, which is a phase into this process. And then, if you obtain the certificate you don't know how you get to have it like to get it into your possession. So there's a lot of unknowns there's no clear categories, a clear button where you can find out what you need for your situation you're in.

DT: *Romanian*

LM: Yeah. So because the information is not available online, we have to go personally in person to a county agency, and then, like for a disabled person like myself, it's very difficult. And then it's even humiliating as they don't even have toilets there.

DT: *Romanian*

LM: And there the public servants are a bit angry. They don't have patience, also because they don't know how to explain the process, and most of the time ... some document is missing, and we have to do another trip to go get the document, and come again.

DT: *Romanian*

LM: So for her it took 3 months of preparing this file, going to doctors, obtaining all the documents that she needed. So when she got to the agency to submit it, it was almost 3 and a half centimeters thick, and the person who went through it said that she's still missing some and she couldn't do it anymore. She said that she's just her own responsibility. She's not going for this test anymore. and they can, if they will, reject her file for this, they can do it. So there you have it, So this coming and going between institutions, and there is no place where you can do everything, you don't have where to scan your documents or print your documents, and if you get there and something is missing you have to just go to very far and come back again.

DT: *Romanian*

LM: So if there was an online site where we could update all these documents and somebody like, they would have notified us that something is missing, we wouldn't have had to do all this trips to the agency, and while Mrs. Daniela worked on the diagnosis, so report that I sent you, and though she was invited in interviews with other people, with all kinds of disabilities, and her experience was quite general. Everybody complained about the same thing.

DT: *Romanian*

LM: So yeah, is this good enough for this question?

SC: Yes, that works. Thank you. I was wondering if, since you have personal experience, we could talk about the process. We understand that first, you have to go to your family, doctor or personal doctor, and they recommend you to a specialist that will help with your disability. And then you have to go to the county house. where they do a multi-dimensional assessment. Do you know what happens after that?

LM: So after you submit the file?

SC: Mhm

LM: "Romanian*
DT: *Romanian*

LM: So she said, I've simplified the process a lot because it involves a lot more documents. and also many. There are times when the Commission sends the person with this ability to to get the referrals from a university center, and it's very hard, and costly. Let's not forget that many people with disabilities are always in a poor financial situation and in a precarious situation and it's very difficult to do what they are asked to do. And once they get the once they are evaluated and get

the the certificate, they will start to be paid immediately, and I'm going to ask a more clarifying question.

DT: *Romanian*

LM: *Romanian*

DT: *Romanian*

LM: *Romanian*

DT: *Romanian*

LM: *Romanian*

DT: *Romanian*

LM: *Romanian* So the amount of money the people with disabilities are paid after they get the certificate is just 500 lei, which is like €100 per month for the highest degree, which is very little. It's like 300, and something for the more accentuated degree of disability, but not the highest one, and just \$15 for *Romanain*, 70 lay or \$15 for the medium or degree. *Romanian*

LM: So this, demanding a referral from our university center, can be done like during the files evaluation or the file can be rejected, and then they are given this motivation, and they have to just lie all over again. *Romanian*

DT: *Romanian*

LM: *Romanian*

DT: *Romanian*

LM: *Romanian*

DT: *Romanian*

LM: So there is also a very, there can be a very long period of time between submitting the file at the like the complete file, and being called for an interview. As we found yesterday from the other interview, it can be like 2 months, for example, in cities. This happens also, because many people are very poor, and try to get the disabilities certificate to obtain this as an additional income, even if they were don't qualify like really

DT: *Romanian*

LM: *Romanian*

DT: *Romanian*

LM: So there is a problem with submitting the documents online because they want to certify that it's original so people have to apply with the original document, *Romanian*

DT: *Romanian*

LM: So even if they have those documents, so in the file you put copies of the document, of the original documents, but when you, before you apply, somebody has to see the original too, so they have to certify them, but this could be done more easily if you just submit everything online. and they communicate with you online that okay, your file is complete or you or it's not complete, you need to upload this or that, and then they could certify this just before you submit so supposing that you will still have to submit the firing person. They will certify them there when you submit it, you wouldn't have to do all this coming and going just to ask a question. You could do this online

DT: *Romanian*

LM: So for the highest degree of disability, apart from that to income of 500 lei, you are entitled to a personal assistant. And normally the State would have to provide you with an assistant like employed by the State. But there are very few in social assistance working in the public system. So usually it's a family member who will take care of the person with disability, and then they are provided also with an income for that.

DT: *Romanian*

LM: *Romanian*

DT: *Romanian*

LM: So if there are no social assistants employed in the state's system, and you have a family member who's taking care of you, you have this income, which is 1200 lei. It's much smaller than what the State would pay to hire social assistance for time to take care of you, because it's the salary plus all the taxes so more than 3 times higher. Since 2017 they moved this, the payment for this income, for the social assistant, [to being] paid by the local level by the City mayor, like the city hall and ... they financially are worse than the government, the central government. so you have fewer social assistants employed. They prefer to pay, [to] give money directly to family members, which is much lower than that they would pay your social assistant

DT: *Romanian*

LM: Yeah, for so this income is *Romanian*

DT: *Romanian*

LM: So even if the income that the person with disability of the highest degree is not as big, like

the lei, many people are so poor that they would do anything to have this income, even if they don't have this level of disability.

DT: *Romanian*

LM: So some of the benefits of obtaining the certificate is that you would have access to a range of services. We have toilitation (rehabilitation). I don't know how it's called.

SC: Rehabilitation, I think

DT: *Romanian*

LM: So some of the benefits involved, but they are only on paper access to some rehabilitation services. But the State has not invested, so these services are not really available.

DT: *Romanian*

LM: So other benefits are travel tickets for within a city or between cities and that's about it.

DT: *Romanian*

LM: So some other benefits are some physical facilities, like the texts or like the house or the car. and lately she also managed to get the right for money for guests. So as the people, with disabilities to a higher degree of disability, are allowed to go between cities for free with the train, but there is no platform. So people who are in a wheelchair cannot use the train for example, and she asked for money for guests. But they would give the money for guests as far as it would be like as the train ticket would cost between cities, which is, which is much lower. I just want to ask just a question Sophia and then I'll let you. *Romanian*

DT: *Romanian*

LM: One interesting thing with all the benefits is that even if people obtain the certificate, they don't know what their rights are. So the commissions, when you receive the certificate, you should be informed, you should be informed about all your rights, but this doesn't really happen. She gave the example of a friend of hers. which is, I think, was diagnosed with *Romanian* We should look this up.

SC: Polio?

LM: No *in Romanian* Yeah, so she obtained a certificate, but she didn't know that she's entitled to receive the subsidy like the income. So she didn't get it for 5 years and like because you didn't ask, they didn't inform her, they didn't offer it to her. So a lot of people, even if they have the certificate, don't know their rights. And we started this- I asked her the question, out of all these agencies, county level agencies which are responsible for this certification process? Is there one reason- which has more like complete information, or which is good practice? And she gave me the example of an agency from Sector 6 in Bucharist. So I'll send you the link so

Romanian from Sector 6, and they are a bit better than the others. But still it's not where it should be .

DT: *Romanian*

LM: *Romanian*

DT: *Romanian*

LM: So she mentioned that another important thing about medical devices is that the certificate would give you the right to receive assistive technology from the State, but like the amount of money that States give for that is quite ridiculous. For example, for a wheelchair, they only keep like \$200 once every 3 years, which is much much less than a proper chair. Not to mention that some people need to be elevated from the wheelchair, so they need elevators, or they need an electrical bed. And the State does not cover this kind of technology at all. So there are very, very few people, like less than 1%, no like one in, and I don't know how many hundreds of people with disabilities who need this kind of technology and have it. So it's only through donations that you can get this in Romania. And this is also a problem. Why? Because you don't have assisted assistive technology in the form of elevators or beds, it's very difficult for social assistants to do their job because they have to lift the persons, and it's very hard for them. They ruin their backs. Even Mrs. Stanley's husband has [had] hernia operations because of this so it's really really sad. Do you have other questions Sophia?

SC: I think we have finished up. I want to thank Mrs. Taunch for taking time out of her day to talk to us.

LM: I could ask, I would ask myself, if she has other suggestions. I don't think she's that worried about time.

SC: Oh okay!

LM: If you're fine with this yeah okay *Romanian*

DT: *Romanian*

LM: *Romanian*

DT: *Romanian*

LM: *Romanian*

DT: *Romanian*

LM: *Romanian*

DT: *Romanian*

LM: So I asked her what suggestions for improving this process and she said that a guide, a printed brochure even, would be very, very useful. That should be present in all the agencies, and also in the doctor's offices, online as well, and a lot of simplification needs to take place, because people are really in desperate situations when they need to obtain the certificate, and like they are overwhelmed by the information and by the language that they find on the public authorities web pages, and they really need like a glossary. What is *Romanian*? What is this thing like this institution? What is it in charge of? And they really need really simple, simple explanations with step-by-step instructions. And this should be adapted for all kinds of disabilities. A friend of hers, who is blind, and his wife is blindly there, child as well. For them, it was almost impossible to follow this process, it took months and months. And she said that people are so desperate for information, they would be even willing to pay for it. Yeah so this and making it up to date because they like the regulations, change very often. And yeah, I said, who should we talk to, to have it disseminated in all the agencies, because the procedures are a bit different from one county to the other. And well, she said that the legislation is the same for everybody, so this is just their internal regulation. Why things are different from one county to another, so with a bit of coordination, and maybe will power from above, the law is in place to make it uniform everywhere. so they just need to want to and coordinate with this. Yeah so that's about it broadly. *Romanian*

DT: *Romanian*

LM: *Romanian* Sofia, I think we're getting closer to the end. Do you want to just say something

in the end? Sorry, I will just make a quick update. It was not related to our subject, that's why, it's yeah. She recommended some other documents that we can consult, and like the diagnosis from the world bank about the evaluation process. There is another diagnosis about the situation of people with disabilities in Romania, which will be very useful for us, as we like proceed with the research this year and she's also told me about the wider strategy for people with disabilities, and what the government is doing, and not doing actually and that's why sorry for the keeping you with this it was. It was interesting information, nonetheless, even if it was not connected to our interviews. And now I'll let you say the conclusions

SC: No, I'm glad that it will help you guys in the future. Don't worry about it. Just thank you, Miss Taunch, for speaking with us. We really appreciate you, sharing your experience and giving suggestions on how to help us, and how to help the community.

LM: *Romanian*

DT: *Romanian*

LM: *Romanian* She thanks us too, and she's convinced that this will help the community somehow.

DT: *Romanian*

SC: Can you just send us the agreement that she signed?

LM: Oh, yeah, yeah, okay, thank you. Sorry to be that long I I couldn't

Appendix G: Pentru Voi Foundation Coded Transcript

CK: Charlotte Kokernak (Interviewer) | DU: Diana Ungureanu (Interviewee) | LM: Laura Micle (Translator, C4R)

CK: For our first question we're gonna talk about the handicap certification process in general, and we wanted to know, what do you know about the process in Romania and the steps to go to get the certificate?

DU: *Romanian*

LM: Okay, So Pentru Voi Foundation supports adults with disabilities, so we're going to talk about this specific case of obtaining the certificate for adults.

DU: *Romanian*

LM: Yeah. So first of all, the parent, usually the parent, or somebody with responsibility over the person makes a request with the GP, and the GP sends them to the specialist doctor.

DU: *Romanian*

LM: Yea, given they are dealing with people with mental disability that the GP usually sends them to a psychiatrist or a neurologist.

DU: *Romanian*

LM: Yeah. So the doctor, the specialist, makes a quite extended report of all his medical history. And quite detailed, not just for the mental or psychiatric condition, but for everything.

DU: *Romanian*

LM: Inclusively he sets the diagnostic. (diagnosis)

DU: *Romanian*

LM: Yeah, the diagnosis is very important, because it will set the degree, like the level of the disability that the Commission will decide. Okay, Well, same portal, and maybe could the family here?

DU: *Romanian*

LM: So they go back with this report to the GP. and the GP has to file it in a form, it's called an Annex ??

DU: *Romanian*

LM: So here everything will be in this form. Everything will be centralized. Like the report from the specialist and what the GP has in his file.

DU: *Romanian*

LM:*Romanian*

DU:*Romanian*

LM: So the doctor writes everything in this form, all his medical history, if they have been in a hospital, or if they can walk, or if they need a wheelchair.

DU: *Romanian*

LM: Then they have to go to the city hall and ask for a social evaluation.

DU: *Romanian*

LM: In the city (Bucharest) the foundation is strong. In Timişoara it's a bit larger so they have to wait for the social evaluation, maybe 2 months. In smaller places, towns, say it can be short. The time can be shorter.

DU: *Romanian*

LM: Yeah so don't worry about it. *Romanian*

DU: *Romanian*

LM: Okay, yeah, so with the note from the City Hall, from the social protection and with everything else with the file is made. The medical documents, and this from the city, like the social protection. And this file is submitted.

DU: *Romanian*

LM: So then they fill in another form, which is called the Nextra Peatra D(??) and this centralizes all other types of information like if a person is employed, if they are retired, if they have any studies, or any kind of income, and to this they also attach any kind of identity cards and proof of all these things that they marked in the last form.

DU: *Romanian*

LM: So they submitted to the (??). It's like the management service for adults in the agency which does this evaluation, which is their DGASPC at the county level.

DU: *Romanian*

LM: So based on the file that they have submitted, they will receive an invitation with the... They're scheduled for an interview. If the person can go there, they will have the interview there, or if not, they will send somebody to their home.

DU: *Romanian*

LM: So, as you can see the process is yeah, it's quite lengthy and difficult, and if they don't have somebody to help them like a family member it's very unlikely that they can do this on their own. But the good thing is that the social assistance from the City Hall, and also from the County Level agency, the DGASPC, they are quite willing to help, and then they can accompany them to the doctor.

CK: Good. So I guess we have like 3 min left. Do you think we have time for one more short question?

DU: Da.

LM: Yes

CK: So I guess, based off of what we just talked about. What do you think could make the process go smoother or become easier for someone to navigate to ultimately get a certificate if they would like one?

DU: *Romanian*

LM: So from our side we can stay longer if you can stay longer.

DU: *Romanian*

LM: So she had thought about it. She had anticipated that question, and thought a bit about this. So for the specific people that they are working with it is very difficult, so any app would be difficult. But, it would be an app for the parents or for the person who takes care of them. So yeah, this is something we should have in mind.

DU: *Romanian*

LM: ??? like the visit to the doctor, for example.

DU: *Romanian*

LM: *Romanian*

DU: *Romanian*

LM: Yeah. So for children who are under age they have to do this periodically. So they will be reevaluated at a certain time, but for adults, so over 18, they usually get this certificate for an undetermined period. At least for people with mental disabilities I suppose or, you know?

DU: *Romanian*

LM: So for the people they are working with it's for an undetermined period of time, and they usually have all the documents so when they apply it's not like something new for them. They usually had needed these documents before.

DU: *Romanian*

LM: *Romanian*

DU: *Romanian*

LM: So she talked a bit about how they provide assistance. In this respect they usually mostly provide assistance by phone. Yeah, they just inform people about the process, and if it's necessary, they even join them to renew their identity cards or to the doctor. And does the NGO help them apply?

DU: *Romanian*

LM: So I asked if they usually apply in the name of these people, and they said, no, usually they don't have to. They just accompany these people as a support to wherever they need.

DU: *Romanian*

LM: Like a close collaboration with doctors would be very useful because they initiate this process.

DU: *Romanian*

LM: So she's been raised brainstorming on ideas. And what could be digitized in this process and like seeing the doctor is not something you could easily skip, like going there in person. But maybe the doctor could upload the form in the app, on the website. Or maybe he could just fill it in.

DU: *Romanian*

LM: So it would be useful for the GP to see the referral that the specialist doctor submitted on this website. So like for the person, when they make the application, they have all the documents, and they won't have to resubmit them again. So it would be nice to be interconnected between the doctors.

CK: Okay, that makes sense. So we could either wrap up now, since...

LM: I just forgot to say something. They also have to request the social evaluation, and that they could also do this request through this website. *Romanian*

DU: *Romanian*

LM: Yeah, So this state... This social evaluation that they request, **Romanian** at the City Hall could also be made through this website.

DU: *Romanian*

LM: There's a standard form for, at least for Timişoara, and yea the social assistant could fill it in there. But the social assistant? Does he have to see the person to fill it in?

DU: *Romanian*

LM: *Romanian*

DU: *Romanian*

LM: So before they submit the big file, they have to have this social evaluation from a social assistance services the City Hall, and when it's properly done, they come at home and do the evaluation at home. So the social assistance could fill in this form, in the website as well.

DU: *Romanian*

LM: I have one more question, one small question if that's fine. Do some of the people you work with apply for themselves, or it's usually a parent or the tutor who does this?

DU: *Romanian*

LM: *Romanian*

DU: *Romanian*

LM: So some of the people they work with have the mental ability to apply for themselves. They might need a bit of support, though. But it's usually the parents or the tutors who apply. Maybe it's because the process is so difficult, and they have to do a lot of trips for documents and it's very bureaucratic, yeah.

DU: *Romanian*

LM: We have to take into account that people with mental disabilities usually also have some behavioral challenges so it's very stressful for them to go through this process, and even if they have to wait at the doctor or if the doctor makes a mistake, they have to go back. It's a lot for a normal person like one who doesn't have disabilities to handle this and for them it's too challenging

DU: *Romanian*

LM: It's a challenging project but yeah, possibly very useful hopefully. Is there anything else that you'd like to add?

DU: No.

CK: I think that honestly, that helped a lot. Yeah, we got a lot of information that will help us. I don't think I have any other questions right now. Yeah, Laura, do you have any other questions?

LM: If you have any other suggestions, you have my email now, or and my phone number, so you can call us. And maybe if we have other questions as well, we can come back to you.

DU:*Romanian*

LM:So Diana is very excited about this project. So if we have any other questions or things that we hear or we're not sure about we can easily come back to her, and she'll help us. DU:*Romanian*

LM: Yeah, I mentioned that for it to be for the website to have the to be the change that is needed. You have to work with the authorities as well. So we, on our side, can just build a concept, a prototype and then put it forward, and it's up to them to take it on, or maybe do something together.

Appendix H: Sense International Coded Transcript Română (Original)

Salut Eti,

Vi se cere să participați la un studiu de cercetare. Cu toate acestea, înainte de a fi de acord, trebuie să fiți pe deplin informat cu privire la scopul studiului, procedurile care trebuie urmate și orice beneficii, riscuri sau disconfort pe care le puteți experimenta ca urmare a participării dumneavoastră. Formularul de mai jos prezintă informații despre studiu, astfel încât să puteți lua o decizie pe deplin informată cu privire la participarea dumneavoastră. Vă mulțumim pentru timpul acordat pentru a răspunde la întrebări despre organizația dvs. și experiența în a ajuta persoanele cu dizabilități. Nu există niciun risc atunci când participați la acest studiu. Trebuie să vă informăm că informațiile furnizate în acest interviu nu vor fi confidențiale, iar numele dvs., orice citate pe care le spuneți în timpul acestui interviu sau numele organizației dvs. pot fi atașate raportului nostru final. Cu toate acestea, dacă doriți să excludeți numele dvs. sau orice citate, vă rugăm să ne anunțați și îl vom elimina. Aveți voie să săriți peste orice întrebare. Documentul pe care l-am trimis împreună cu acest interviu este un formular de consimțământ care prezintă informațiile pe care tocmai le-am acoperit. Dacă avem consimțământul dumneavoastră pentru a participa la acest interviu, ați putea să vă semnați numele pe următorul formular? Puteți alege versiunea în engleză sau română.

Întrebări

1. Ce știi despre procesul de certificare a handicapului din România?

Din punctul de vedere al organizației la care lucrez de aproape 15 ani, Fundația Sense Internațional România (www.surdocecitate.ro), am avut tangență cu procesul de certificare a handicapului în România începând cu anul 2006, când Legea 448 privind protecția și promovarea drepturilor persoanelor cu handicap a recunoscut surdocecitatea ca dizabilitate distinctă, ca urmare a eforturilor organizației noastre. Această recunoaștere ar fi trebuit să ducă, teoretic, la certificarea acestor persoane ca având tipul de dizabilitate "surdocecitate". Din păcate, la 16 ani de la această lege, situația persoanelor cu surdocecitate din România rămâne una confuză, la nivel statistic oficial fiind înregistrate la 31.12.2021 doar 87 de persoane cu surdocecitate* (80 adulți și 7 copii). Cauza este lipsa criteriilor clare de încadrare în acest tip de handicap.

*http://anpd.gov.ro/web/transparenta/statistici/trimestriale/

2. Cum oferă organizația dvs. informații online?

a. Un site web sau o aplicație mobilă cu o listă de informații sau o diagramă de decizie?

Organizația noastră nu oferă în mod specific informații legate de certificarea handicapului, informațiile generale fiind oferite pe site-ul organizației, <u>www.surdocecitate.ro</u>

3. A ajutat organizația dumneavoastră persoanele cu dizabilități să obțină certificare?

a. Ce ați auzit de la oameni care au încercat să treacă prin procesul de certificare?

Nu am fost implicați direct în sprijinirea persoanelor cu surdocecitate să obțină certificare. Nu am avut astfel de solicitări și, în plus, nu oferim servicii directe persoanelor cu surdocecitate ci lucrăm prin intermediul partenerilor noștri, școli speciale din toată țara.

Ce știm însă este faptul că procesul de certificare este unul greoi, ce implică multe drumuri din partea persoanei cu dizabilități la medici și apoi la instituții.

b. Care sunt unele dificultăți pe care le vedeți în acest proces?

- Informațiile stufoase, complicate, neaccesibilizate
- Lipsa unei abordări coordonate, ceea ce pune persoana cu dizabilități, respectiv părintele copilului cu dizabilități, să facă drumuri nenumărate din instituție în instituție.

4. Ce ar putea ajuta procesul să meargă mai ușor sau să devină mai ușor de navigat?

În domeniul oncologic există meseria de "navigator"*, meseria de navigator de pacienti a fost introdusa in Codul Ocupatiilor din Romania la solicitarea Asociatiei pentru preventia si lupta impotriva cancerului Amazonia, la finalul anului 2016.

Navigatorii de pacienti pot fi utili in orice institutie medicala, dar si in afara acestora, prin consultanta individuala. Rolul poate fi asumat atat de persoane care lucreaza in domeniile medical sau asistenta sociala, dar si de alte persoane, care isi doresc sa practice aceasta meserie si urmeaza cursuri de specialitate.

Ar fi ideal să existe un astfel de "navigator" și pentru ghidarea persoanei cu dizabilități în procesul de certificare.

*https://www.amazonia-navigators.ro/

English (Translation)

Hello Eti,

You are being asked to participate in a research study. Before you agree, however, you must be fully informed about the purpose of the study, the procedures to be followed, and any benefits, risks or discomfort that you may experience as a result of your participation. The form below presents information about the study so that you may make a fully informed decision regarding your participation. Thank you for taking time to answer questions about your organization and experience in helping people with disabilities. There is no risk when participating in this study. We need to inform you that information given in this interview will not be confidential, and your name, any quotes you say during this interview, or your organization's name may be attached to our final report. However, if you wish to exclude your name or any quotes, please let us know and we will remove it. You are allowed to skip any question. The document we sent with this interview is a consent form outlining the information we just covered. If we have your consent to participate in this interview, could you sign your name on the following form? You can choose the English or Romanian version.

Ouestions

1. What do you know about the handicap certification process in Romania?

From the point of view of the organization I have been working for almost 15 years, Sense International Romania Foundation (www.surdocecitate.ro), I have been involved with the disability certification process in Romania since 2006, when Law 448 on the protection and promotion of rights [for] People with disabilities recognized deafblindness as a distinct disability, as a result of our organization's efforts. This recognition should have led, in theory, to the

certification of these people as having the type of disability "deafblindness". Unfortunately, 16 years after this law, the situation of people with deafblindness in Romania remains confusing, at the official statistical level being registered on 31.12.2021 only 87 people with deafblindness * (80 adults and 7 children). The reason is the lack of clear criteria for inclusion in this type of disability. * http://anpd.gov.ro/web/transparenta/statistici/trimestriale/

2. How does your organization provide information online?

a. A website or mobile app with a list of information or a decision flowchart? Our organization does not specifically provide information related to disability certification, the general information being provided on the organization's website, www.surdocecitate.ro

3. Has your organization helped people with disabilities get certified?

a. What have you heard from people who have tried to go through the certification process?

We were not directly involved in supporting people with deafblindness to obtain certification. We have not had such requests and, in addition, we do not offer direct services to deafblind people but we work through our partners, special schools from all over the country.

What we do know is that the certification process is a difficult one, which involves many paths from the person with disabilities to doctors and then to institutions.

b. What are some difficulties that you see in the process?

- -Busy, complicated, inaccessible information
- -The lack of a coordinated approach, which puts the person with disabilities, respectively the parent of the child with disabilities, to make countless trips from institution to institution.

4. What could help make the process go smoother or become easier to navigate?

In the field of oncology there is the profession of "navigator"*. The profession of patient navigator was introduced in the Romanian Code of Occupations at the request of the Association for the prevention and fight against cancer Amazonia, at the end of 2016.

Patient navigators can be useful in any medical institution, but also outside them, through individual consultation. The role can be assumed both by people working in the fields of medical or social assistance, but also by other people, who want to practice this profession and take specialized courses.

It would be ideal to have such a "browser" to guide the person with disabilities in the certification process.

* https://www.amazonia-navigators.ro/

Appendix I: Survey Questions for People with Disabilities

English Start of Block 1: Default Ouestion Block Introduction: Hello! We are a team of four undergraduate students from a science and technology school in Worcester, Massachusetts in the United States, called Worcester Polytechnic Institute. We are working in collaboration with Code for Romania (https://code4.ro/ro) on a project for Civic Labs. Our names Calandrello, Charlotte Kokernak, Evelyn Tran, and We created a survey for Romanian people with disabilities along with our collaborator to learn more about their experience with using technology and getting a Romanian handicap certificate. The results will assist us in our project to help people with disabilities have an easier time finding information receive certificate. the to a handicap We encourage people with all types and levels of disabilities and impairments to participate, regardless handicap certification of status. Completion of this survey should take approximately 5-10 minutes. Your participation is voluntary, and you may complete the survey in either Romanian or English. There is no risk in participating in this survey. You may choose to stop at any time or skip any questions by simply proceeding. Consent By checking below, the participant is consenting to participate in this study.

Start of Block 2: Requirements

I consent to participate in this study. (1)

End of Block 1: Default Question Block

Q1 Do you have a disability?
O No (1)
O Yes (2)
O Prefer not to say (3)
Skip To: End of Survey If Do you have a disability? = No
Q2 How old are you?
O Under 18 (1)
18-24 years old (2)
25-34 years old (3)
O 35-44 years old (4)
○ 45-54 years old (5)
○ 55-64 years old (6)
○ 65+ years old (7)
O Prefer not to say (8)
Skip To: End of Survey If How old are you? = Under 18
End of Block 2: Requirements
Start of Block 3: General Questions
Q1 Do you currently reside in Romania?
○ Yes (1)
O No (2)

Q2 How do you describe yourself?
O Male (1)
Female (2)
O Non-binary / third gender (3)
O Prefer to self-describe (4)
O Prefer not to say (5)
Q3 What is the highest degree or level of education you have completed?
O Primary school (1)
Middle School (2)
O Vocational school (3)
O High School (4)
O License (5)
O Master (6)
O PhD (7)
O Prefer not to say (8)

Q4 W	hat type of disability do you have? Check all that apply		
	Physical (1)		
	Visual (2)		
	Auditory (3)		
	Deafblindness (4)		
	Somatic (5)		
	Mental (6)		
	Psychic (7)		
	HIV/AIDS (8)		
	Associated (9)		
	Rare (10)		
	Other (11)		
	Prefer not to say (12)		
Q5 Ha	we you ever been issued a Romanian handicap certificate?		
\bigcirc Ye	es (1)		
O No	O No (2)		
End o	f Block 3: General Questions		

Start of Block 4: With Certification

Q1 When did you first receive the handicap certificate?					
O Within the pa	ast year (1)				
1-5 years ago	(2)				
6-10 years ag	go (3)				
O 11-15 years a	ago (4)				
0 16-20 years a	ago (5)				
20+ years ag	o (6)				
· · j · · · · · · · · · · · · · ·	- (-)				
Q2 Select the lev	vel of difficulty o	of each given pro	mpt that best des	cribes vour expe	rience.
	Extremely difficult (1)	Somewhat difficult (2)	Neither easy nor difficult (3)	Somewhat easy (4)	Extremely easy (5)
Finding information on the process online (1)	0	0	0	0	0
Being evaluated by a social assistant (2)	0	0	0	0	0
Obtaining medical letter from doctor (3)	0	0	0	0	0
Obtaining letter from specialist on diagnosis (4)	0	0	0	0	0
Submitting administrativ e documents (identity card, employment	0	0	0	0	0

.....

status,

(5)

etc.)

Q3 W apply	What benefits do you currently take advantage of from having a certificate? C	theck all that
	Facilities services/benefits (1)	
	Financial benefits (2)	
	Employment opportunities (3)	
	Education accommodations (4)	
	Transportation benefits (5)	
	Tax reductions (6)	
	Other (7)	
Q4 W	/hy did you decide to obtain a certificate?	
Q5 W	That, if any, complications did you experience when gaining the certificate?	

Q6 What would make the process easier?	
End of Block 4: With Certification	
Start of Block 5: Without Certification	
Q1 Have you ever applied for a Romanian handicap certificate?	
○ Yes (1)	
O No (2)	
Q2 If you checked "No" to Q1, have you ever started the process?	
○ Yes (1)	
O No (2)	

	you checked "Yes" to Q2, what prevented you from completing the process? Check all the as that apply.
	Difficult scheduling appointments with doctors (1)
	Difficulty obtaining required documents (2)
	Difficulty understanding the process (3)
	Process was too invasive (4)
	Benefits were not substantial (5)
	Other (6)
Q4 If y	you checked "No" to Q2, why did you choose to not start the process? Check all the reasons
	Benefits were not substantial (1)
	Process was difficult to understand (2)
	Was not aware of the certificate (3)
	Was not aware of the available benefits (4)
	Other (5)
Q5 W	hat benefits of the certificate are you aware of?

End of Block 5: Without Certification

Start o	of Block 6: Digital/Technology Usage		
Q1 Wh	nat devices do you own? Check all that apply		
	Smartphone (1)		
	Tablet (2)		
	Laptop (3)		
	Desktop (4)		
	Other (5)		
	Prefer not to answer (6)		
Q2 Wh	nich device do you use most?		
O Sm	artphone (1)		
O Tal	plet (2)		
	ptop/Desktop (3)		
Oth	ner (4)		
O Pre	efer not to answer (5)		
Q3 Wh	nich are you more familiar with using?		
\bigcirc We	ebsite (document viewed from an Internet browser) (1)		
\bigcirc Mo	O Mobile App (software application for phone or tablet) (2)		
O No	preference (3)		

End of Block 6: Digital/Technology Usage

Start of Block 7: Closing

Submission By clicking below, responses will be recorded and submitted to the project team. Thank you for your participation in our survey.

O By filling in this form, I accept that the data I provided is processed by Code for Romania NGO and Worcester Polytechnic Institute (WPI), in accordance with the EU Regulation 2016/679. (1)

End of Block 7: Closing

Română

Start of Block: Default Ouestion Block

O Prefer să nu spun (3)

Salut!

Suntem o echipă de patru studenți de la o școală de știință și tehnologie din Worcester, Massachusetts, în Statele Unite, numită Worcester Polytechnic Institute și lucrăm în colaborare cu Code for Romania (https://code4.ro/ro) la un proiect pentru programul lor Civic Labs. Numele noastre sunt Sophia Calandrello, Charlotte Kokernak, Evelyn Tran și John Clewley.

Împreună cu Code4Romania, am creat acest sondaj pentru persoanele cu dizabilități din România pentru a afla mai multe despre experiența lor cu utilizarea tehnologiei și obținerea unui certificat de handicap. Rezultatele ne vor ajuta în proiectul nostru de a ajuta persoanele cu dizabilități să găsească mai ușor informațiile pentru a primi un certificat de handicap.

Încurajăm persoanele cu toate tipurile și gradele de dizabilități și deficiențe să participe la acest sondaj, indiferent de statutul de certificare într-un grad de handicap.

Completarea acestui sondaj ar trebui să dureze aproximativ 5-10 minute. Participarea ta este voluntară și poți completa sondajul fie în română, fie în engleză. Nu există niciun risc în participarea la acest sondaj. Poți alege să te oprești în orice moment sau să sari peste orice întrebare

participarea la acest sondaj. Poți alege să te oprești în orice întrebare.	e moment	sau să	sari	peste	orice
Bifând mai jos, îți dai acordul să participi la acest studiu. O Sunt de acord să particip la acest studiu. (1)					
End of Block: Default Question Block					
Start of Block: Cerințe					
Q1 Ai o dizabilitate?					
O Da (1)					
O Nu (2)					

Q2 Cati ani ai?	
O Sub 18 (1)	
O 18-24 (2)	
O 25-34 (3)	
O 35-44 (4)	
O 45-54 (5)	
O 55-64 (6)	
○ 65 și peste (7)	
O Prefer să nu răspund (8)	
Skip To: End of Survey If Cati ani ai? = Sub 18	
End of Block: Cerințe	
Start of Block: Intrebari generale	
Q1 În prezent locuiești în România?	
O Da (1)	
O Nu (2)	

Skip To: End of Survey If Ai o dizabilitate? = Nu

Q2 Ca	are e genul tău?				
	O Masculin	(1)			
	O Feminin (2	2)			
	O Non-binar	/ al treilea gen((3)		
	O Prefer	să	mă	auto-descriu	(4)
	O Prefer să n	u spun (5)			
Q3 Ca	are este cel mai î	nalt grad sau niv	vel de studii pe	care l-ai încheiat?	
	O Școala prir	mară (1)			
	O Școala gim	nnazială (2)			
	O Școala pro	fesională (3)			
	O Liceu (4)				
	O Licență (5)			
	O Masterat ((6)			
	O Doctorat (7	7)			
	O Prefer să n	u răspund (8)			

Q4 Ce	tip de handicap ai? Bifează tot ce se aplică
	Fizic (1)
	Vizual (2)
	Auditiv (3)
	Surdocecitate (4)
	Somatic (5)
	Mental (6)
	Psihic (7)
	HIV/SIDA (8)
	Asociat (9)
	Rar (10)
	Alte (11)
	Prefer să nu răspund (12)
Q5 Ți	s-a eliberat vreodată un certificat de handicap în România?
	O Da (1)
	O Nu (2)
End o	f Block: Intrebari generale

Start of Block: Cu Certificare

○ În ultimul an (1)									
O acum 1-5 ani (2)									
acum 6-10 ani (3)									
O acum	O acum 11-15 ani (4)								
O acum	16-20 de ani (5)							
O acum	20 de ani (6)								
Q2 Selectează cât de dificilă ți s-a părut fiecare activitate din procesul de aplicare									
	Extrem de dificil (1)	Oarecum dificil (2)	Nici ușor, nici dificil (3)	Oarecum ușor (4)	Extrem de ușor (5)				
Să găsesc online informații despre proces (1)	0	0	0	0	()				
Să fiu evaluat de un asistent social (2)	0	0	0	0	0				
Să obțin scrisoarea de la medicul de famile (3)	0	0	0	0	0				
Să obțin scrisoarea de la medicul specialist (4)	0	0	0	0	0				
Să depun documentele (carte de identitate, statut de angajare etc.) (5)	0	0	0	0	0				

Q1 In ce an ai primit certificatul de handicap?

Q3 Ce	e beneficii îți aduce acest certificat? Bifează tot ce se aplică	
	Facilități servicii (1)	
	Beneficii financiare (2)	
	Oportunități de angajare (3)	
	Cazare școlară (4)	
	Beneficii de transport (5)	
	Reduceri de impozite (6)	
	Altele (7)	
Q4 De	e ce ai decis să obții un certificat?	
	<u> </u>	
Q5 Ce	e complicații ai întâmpinat, dacă au existat, la obținerea certificatului?	
_		
_		

Q6 C6	e ar face procesul mai ușor?				
_					
_					
End of Block: Cu Certificare					
Start	of Block: Fara Certificare				
Q1 Ai	aplicat vreodată pentru un certificat de handicap în România?				
	O Da (1)				
	O Nu (2)				
Q2 Da	ncă ai bifat "Nu" la întrebarea anterioară, ai început vreodată procesul? O Da (1)				
	O Nu (2)				
	acă ai bifat "Da" la Q2 a doua întrebare, ce te-a împiedicat să finalizezi procesul? Bifează notivele care se aplică.				
	Program dificil de programare la medici (1)				
	Dificultăți în obținerea documentelor solicitate (2)				
	Dificultăți în înțelegerea procesului (3)				
	Procesul a fost prea invaziv (4)				
	Beneficiile nu au fost atractive (5)				

	Altele (6)
	acă ai bifat "Nu" la Q2 a doua întrebare, de ce ai ales să nu începi procesul? Bifează toate ele care se aplică.
	Beneficiile nu au fost atractive (1)
	Procesul a fost greu de înțeles (2)
	Nu știam de existența certificatului (3)
	Nu am înțeles care sunt beneficiile (4)
	Altele (5)
Q5 De	espre ce beneficii ale certificatului de handicap ai auzit până acum?
_	
End o	f Block: Fara Certificare

Start of Block: Întrebări digitale

Q1 Ce	e dispozitive deții? Bifează tot ce se aplică					
	Smartphone (1)					
	Tabletă (2)					
	Laptop (3)					
	Desktop (4)					
	Altele (5)					
	Prefer să nu răspund (6)					
Q2 Ce	e dispozitiv folosești cel mai mult?					
	O Smartphone (1)					
	O Tableta (2)					
	Captop/Desktop (3)					
	O Alte (4)					
	O Prefer să nu răspund (5)					
Q3 Ce	e ți-e mai ușor să folosești?					
	O Un site web (document vizualizat dintr-un browser de internet) (1)					
	O aplicație mobilă (aplicație software pentru telefon sau tabletă) (2)					
	O Nici o preferință (3)					
End o	f Block: Întrebări digitale					
	^					

Start of Block: Închidere

Q1 Făcând clic pe cercul de mai jos, răspunsurile vor fi înregistrate și transmise echipei de proiect. Iți mulțumim pentru participarea la sondajul nostru.

O Prin completarea formularului accept ca datele oferite să fie procesate de Asociatia Code for Romania si Worcester Polytechnic Institute (WPI) în prevedere cu Regulamentul UE 2016/679. (1)

End of Block: Închidere

Appendix J: Informed Consent Agreements for User Testing

Acord de consimțământ informat pentru participarea la un studiu de cercetare

Anchetatori: John Clewley, Sophia Calandrello, Charlotte Kokernak, Evelyn Tran

Informații de contact: gr-c-labs-d22@wpi.edu

Titlul studiului de cercetare: Instrumente digitale accesibile pentru românii cu dizabilități

Sponsor: Cod pentru România: Civic Labs

Introducere

Vi se cere să participați la un studiu de cercetare. Cu toate acestea, înainte de a fi de acord, trebuie să fiți pe deplin informat cu privire la scopul studiului, procedurile care trebuie urmate și orice beneficii, riscuri sau disconfort pe care le puteți experimenta ca urmare a participării dumneavoastră. Acest formular prezintă informații despre studiu, astfel încât să puteți lua o decizie pe deplin informată cu privire la participarea dumneavoastră.

Scopul studiului: Scopul acestui studiu este de a proiecta un instrument digital care va contura și simplifica procesul de primire a certificării de handicap în România pentru persoanele cu dizabilități. Scopul acestei evaluări de testare a utilizatorilor este de a primi feedback cu privire la designul nostru actual de prototip, în special despre modul în care acesta poate fi mai intuitiv și mai util pentru utilizatori.

Proceduri de urmat: Vom solicita participarea prin e-mail. Introducerea fiecărei proceduri de studiu va începe cu o introducere în proiectul nostru, explicând dreptul lor de a refuza orice întrebări și înregistrarea consimțământului de participare cu o semnătură digitală sau consimțământ verbal înregistrat audio. Participarea la interviu ar trebui să dureze între 15 si 30 de minute.

Riscuri pentru participanții la studiu: Nu există riscuri previzibile ale participării la acest sondaj.

Beneficii pentru participanții la cercetare și pentru alții: Nu există beneficii pentru participanții la studiu.

Păstrarea evidenței și confidențialitatea: Înregistrările studiului vor fi păstrate de anchetatori. Doar anchetatorii vor avea acces la înregistrări. Participanții la studiu nu vor fi obligați să se identifice sau să dezvăluie informatii despre demografia lor.

Înregistrările participării dumneavoastră la acest studiu vor fi păstrate confidențiale în măsura permisă de lege. Cu toate acestea, anchetatorii studiului, sponsorul sau desemnatul acestuia și, în

anumite circumstanțe, Consiliul de revizuire instituțional al Institutului Politehnic din Worcester (WPI IRB) vor putea inspecta și avea acces la datele confidențiale care vă identifică după nume. Orice publicare sau prezentare a datelor nu vă va identifica.

Despăgubiri sau tratament în caz de vătămare: nu există niciun risc de vătămare sau vătămare din acest sondaj. Nu există compensație sau tratament în cazul unei răni. Nu renunțați la niciunul dintre drepturile dumneavoastră legale prin semnarea acestei declarații.

Pentru mai multe informații despre această cercetare sau despre drepturile participanților la cercetare sau în caz de vătămare legată de cercetare, contactați:

- gr-c-labs-d22@wpi.edu
- Directorul IRB al Institutului Politehnic din Worcester Ruth McKeogh, Tel. 508 8316699, Email: <u>irb@wpi.edu</u>
- Administrator pentru protecția umană a Institutului Politehnic din Worcester Gabriel Johnson, Tel. 508-831-4989, e-mail: gjohnson@wpi.edu

Participarea dumneavoastră la această cercetare este voluntară. Refuzul dvs. de a participa nu va duce la nicio penalizare pentru dvs. sau nicio pierdere a beneficiilor la care ați avea dreptul altfel. Puteți decide să opriți participarea la cercetare în orice moment, fără penalități sau pierderea altor beneficii. Anchetatorii proiectului își păstrează dreptul de a anula sau amâna procedurile experimentale în orice moment consideră necesar. În cazul în care un participant dorește să se retragă din studiu după ce acesta a început, trebuie urmate următoarele proceduri: contactați gr-c-labs-d22@wpi.edu. Nu există consecințe pentru retragerea timpurie pentru subiect.

Prin semnarea mai jos, luați la cunoștință că ați fost informat și sunteți de acord să participați la studiul descris mai sus. Asigurați-vă că întrebările dvs. primesc un răspuns satisfăcător înainte de a semna. Aveți dreptul să păstrați o copie a acestui acord de consimțământ.

	Data: 4/20/2022	
Semnătura participantului la studiu		
Diana-Valentina Ungureanu		
Numele participantului la studiu (vă ru	ıgăm să imprimați)	
_Evelyn Tran	Data: 4/20/2022	
Semnătura persoanei care a explicat ac	cest studiu	

Excepții speciale: în anumite circumstanțe, un IRB poate aproba o procedură de consimțământ care diferă de unele dintre elementele consimțământului informat menționate mai sus. Înainte de a face acest lucru, totuși, IRB trebuie să facă constatări cu privire la justificarea cercetării pentru diferite proceduri (adică o renunțare la unele dintre cerințele de consimțământ informat trebuie să fie necesară pentru ca cercetarea să fie "realizată în mod practic"). IRB trebuie, de asemenea, să găsească că cercetarea implică "nu mai mult decât un risc minim pentru subiecți". Alte cerințe se regăsesc la 45 C.F.R. §46.116.

Acord de consimțământ informat pentru participarea la un studiu de cercetare

Anchetatori: John Clewley, Sophia Calandrello, Charlotte Kokernak, Evelyn Tran

Informații de contact: gr-c-labs-d22@wpi.edu

Titlul studiului de cercetare: Instrumente digitale accesibile pentru românii cu dizabilități

Sponsor: Cod pentru România: Civic Labs

Introducere

Vi se cere să participați la un studiu de cercetare. Cu toate acestea, înainte de a fi de acord, trebuie să fiți pe deplin informat cu privire la scopul studiului, procedurile care trebuie urmate și orice beneficii, riscuri sau disconfort pe care le puteți experimenta ca urmare a participării dumneavoastră. Acest formular prezintă informații despre studiu, astfel încât să puteți lua o decizie pe deplin informată cu privire la participarea dumneavoastră.

Scopul studiului: Scopul acestui studiu este de a proiecta un instrument digital care va contura și simplifica procesul de primire a certificării de handicap în România pentru persoanele cu dizabilități. Scopul acestei evaluări de testare a utilizatorilor este de a primi feedback cu privire la designul nostru actual de prototip, în special despre modul în care acesta poate fi mai intuitiv și mai util pentru utilizatori.

Proceduri de urmat: Vom solicita participarea prin e-mail. Introducerea fiecărei proceduri de studiu va începe cu o introducere în proiectul nostru, explicând dreptul lor de a refuza orice întrebări și înregistrarea consimțământului de participare cu o semnătură digitală sau consimțământ verbal înregistrat audio. Participarea la interviu ar trebui să dureze între 15 și 30 de minute.

Riscuri pentru participanții la studiu: Nu există riscuri previzibile ale participării la acest sondaj.

Beneficii pentru participanții la cercetare și pentru alții: Nu există beneficii pentru participanții la studiu.

Păstrarea evidenței și confidențialitatea: Înregistrările studiului vor fi păstrate de anchetatori. Doar anchetatorii vor avea acces la înregistrări. Participanții la studiu nu vor fi obligați să se identifice sau să dezvăluie informații despre demografia lor.

Înregistrările participării dumneavoastră la acest studiu vor fi păstrate confidențiale în măsura permisă de lege. Cu toate acestea, anchetatorii studiului, sponsorul sau desemnatul acestuia și, în anumite circumstanțe, Consiliul de revizuire instituțional al Institutului Politehnic din Worcester (WPI IRB) vor putea inspecta și avea acces la datele confidențiale care vă identifică după nume. Orice publicare sau prezentare a datelor nu vă va identifica.

Despăgubiri sau tratament în caz de vătămare: nu există niciun risc de vătămare sau vătămare din acest sondaj. Nu există compensație sau tratament în cazul unei răni. Nu renunțați la niciunul dintre drepturile dumneavoastră legale prin semnarea acestei declarații.

Pentru mai multe informații despre această cercetare sau despre drepturile participanților la cercetare sau în caz de vătămare legată de cercetare, contactați:

- gr-c-labs-d22@wpi.edu
- Directorul IRB al Institutului Politehnic din Worcester Ruth McKeogh, Tel. 508 8316699, Email: irb@wpi.edu
- Administrator pentru protecția umană a Institutului Politehnic din Worcester Gabriel Johnson, Tel. 508-831-4989, e-mail: gjohnson@wpi.edu

Participarea dumneavoastră la această cercetare este voluntară. Refuzul dvs. de a participa nu va duce la nicio penalizare pentru dvs. sau nicio pierdere a beneficiilor la care ați avea dreptul altfel. Puteți decide să opriți participarea la cercetare în orice moment, fără penalități sau pierderea altor beneficii. Anchetatorii proiectului își păstrează dreptul de a anula sau amâna procedurile experimentale în orice moment consideră necesar. În cazul în care un participant dorește să se retragă din studiu după ce acesta a început, trebuie urmate următoarele proceduri: contactați gr-c-labs-d22@wpi.edu. Nu există consecințe pentru retragerea timpurie pentru subiect.

Prin semnarea mai jos, luați la cunoștință că ați fost informat și sunteți de acord să participați la studiul descris mai sus. Asigurați-vă că întrebările dvs. primesc un răspuns satisfăcător înainte de a semna. Aveți dreptul să păstrați o copie a acestui acord de consimțământ.

	Data: 4/20/2022
Semnătura participantului la studiu	
Daniel Huma	
Numele participantului la studiu (vă rugăm să impr	imați)
Evelyn Tran	Data: 4/20/2022

Semnătura persoanei care a explicat acest studiu

Excepții speciale: în anumite circumstanțe, un IRB poate aproba o procedură de consimțământ care diferă de unele dintre elementele consimțământului informat menționate mai sus. Înainte de a face acest lucru, totuși, IRB trebuie să facă constatări cu privire la justificarea cercetării pentru

diferite proceduri (adică o renunțare la unele dintre cerințele de consimțământ informat trebuie să fie necesară pentru ca cercetarea să fie "realizată în mod practic"). IRB trebuie, de asemenea, să găsească că cercetarea implică "nu mai mult decât un risc minim pentru subiecți". Alte cerințe se regăsesc la 45 C.F.R. §46.116.

Informed Consent Agreement for Participation in a Research Study

Investigators: John Clewley, Sophia Calandrello, Charlotte Kokernak, Evelyn Tran

Contact Information: gr-c-labs-d22@wpi.edu

Title of Research Study: Accessible Digital Tools for Romanians with Disabilities

Sponsor: Code for Romania: Civic Labs

Introduction

You are being asked to participate in a research study. Before you agree, however, you must be fully informed about the purpose of the study, the procedures to be followed, and any benefits, risks or discomfort that you may experience as a result of your participation. This form presents information about the study so that you may make a fully informed decision regarding your participation.

Purpose of the study: The goal of this study is to design a digital tool that will outline and simplify the process of receiving a handicap certification in Romania for people with disabilities. The purpose of this user testing evaluation is to receive feedback on our current prototype design, specifically on how it can be made more intuitive and useful for users.

Procedures to be followed: We will request participation via email. Introduction to each study procedure will start with an introduction to our project, explaining their right to refuse any questions, and recording consent to participate with a digital signature or verbal audio-recorded consent. Participation in the interview should take 15 to 30 minutes.

Risks to study participants: There are no foreseeable risks of participating in this survey.

Benefits to research participants and others: No benefits for study participants.

Record keeping and confidentiality: Study records will be kept by the investigators. Only the investigators will have access to the records. Study participants will not be required to identify themselves or reveal any information about their demographics.

Records of your participation in this study will be held confidential so far as permitted by law. However, the study investigators, the sponsor or its designee and, under certain circumstances, the Worcester Polytechnic Institute Institutional Review Board (WPI IRB) will be able to inspect and have access to confidential data that identify you by name. Any publication or presentation of the data will not identify you.

Compensation or treatment in the event of injury: There is no risk of injury or harm from this survey. There is no compensation or treatment in the vene of an injury. You do not give up any of your legal rights by signing this statement.

For more information about this research or about the rights of research participants, or in case of research-related injury, contact:

- gr-c-labs-d22@wpi.edu
- Worcester Polytechnic Institute IRB Manager Ruth McKeogh, Tel. 508 8316699, Email: irb@wpi.edu
- Worcester Polytechnic Institute Human Protection Administrator Gabriel Johnson, Tel. 508-831-4989, Email: gjohnson@wpi.edu

Your participation in this research is voluntary. Your refusal to participate will not result in any penalty to you or any loss of benefits to which you may otherwise be entitled. You may decide to stop participating in the research at any time without penalty or loss of other benefits. The project investigators retain the right to cancel or postpone the experimental procedures at any time they see fit. Should a participant wish to withdraw from the study after it has begun, the following procedures should be followed: contact gr-c-labs-d22@wpi.edu. There are no consequences for early withdrawal for the subject.

By signing below, you acknowledge that you have been informed about and consent to be a participant in the study described above. Make sure that your questions are answered to your satisfaction before signing. You are entitled to retain a copy of this consent agreement.

Luca Anamaria-Bianca Date: 20.4.22

Study Participant Signature

Luca Anamaria-Bianca

Study Participant Name (Please print)

Sclandrello	Date:4/20/22	
Signature of Person who explained this study		

Special Exceptions: Under certain circumstances, an IRB may approve a consent procedure which differs from some of the elements of informed consent set forth above. Before doing so, however, the IRB must make findings regarding the research justification for different procedures (i.e. a waiver of some of the informed consent requirements must be necessary for the research is

to be "practicably carried out.") The IRB must also find that the research involves "no more than minimal risk to the subjects." Other requirements are found at 45 C.F.R. §46.116.

Appendix K: User Testing Framework

Before Recording

Hello, thank you for joining us and participating in our study. The goal of this session is to test and evaluate the design of our prototype. The team designed the prototype to help people with disabilities find the information and submit files to become certified for a disability certificate.

We plan to record this session to rewatch your actions as well as transcribe the session. Before we begin, we need you to fill out this consent form.

Intro

Thank you again. We are going to give you a series of tasks to complete, and we would like you to "think-aloud" or say your thoughts out loud as you perform the tasks. Do you have any questions?

Here is the prototype link. () First can you.....

Tasks

- 1. Find Benefits of the Certificate
- 2. Find Personalized Information for an adult, applying alone for the first time, with a Vision Impairment
- 3. Submit an Application
- 4. Approve Jane Doe's application

Ouestions

Task 1. Find Benefits of the Certificate Notes

J1. On a scale of 1-5, how hard was it to find the Benefits of the Certificate? 1 being extremely easy, 5 being extremely difficult.

1 2 3 4 5
Extremely Easy
Difficult

J1a. What difficulties did you encounter, if any?

J1b. What did you like?

Notes	3						
th	J2. On a sca				-		sonalized Information of
1 Extremely Difficult	Easy	2		3		4	5 Extremely
J2a. V	What difficultie	es did you e	ncounter, if	any?			
J2b. V	What did you li	ike?					
Task <u>Notes</u>	3. Create an A	ccount					
			w hard was i		gate to Create	an Acc	count? 1 being extremely
1 Extremely Difficult	•	2 efficulties di	d vou encou	3	nv?	4	5 Extremely
J3b. V	J3a. What difficulties did you encounter, if any? b. What did you like?						
Task <u>Notes</u>	4. Submit an A	Application					
	J4. On a sca				navigate to su	ıbmit tl	ne Application? 1 being
1 Extremely	Easy	2		3		4	5 Extremely
Difficult	J4a. What di	fficulties di	d you encou	nter, if a	ny?		
	J4b. What di	id you like?					
At th	e end						

Task 2. Find Personalized Information for an adult, applying alone for the first time, with a

Vision Impairment

J5. On a scale of 1-5, overall, how was your experience navigating through the application? 1 being extremely easy, 5 being extremely difficult.

1 2 3 4 5

Extremely Easy Extremely

Difficult

- J6. What difficulties did you encounter, if any?
- J7. What did you like?
- J8. Do you have any other suggestions or ideas for this application?
- J9. What do you feel like we did well with the prototype?

Thank you

Thank you for taking the time to test our prototype. Your input is valuable in supporting our design. Goodbye!

Appendix L: Fundatia Pentru Voi User Testing Transcript

ET: Evelyn Tran (Interviewer) | DU: Diana Ungureanu (Interviewee) | LM: Laura Micle (C4R)

DU: *Romanian*

LM: *Romanian*

DU: *Romanian*

LM: Okay, so she asks about this step. Yeah, you can. If you know exactly like, you can choose it yourself, and if not, you can skip this step. *Romanian*

DU: *Romanian*

LM: *Romanian* Evelyn, is it, will all the branches of the decision tree go now? Run?

ET: What do you mean? Are like all of them, like to get the results?

LM: Mhm.

ET: I think as of right now, the only the like one result page that we have is there.

LM: Okay, *Romanian* Okay? And then *Romanian* yes, like here we know that these are not like the proper steps, and like we should, so when the new procedure is set there will be the specific steps, but we just want to give a preview of how it could look like all that they should do.

DU: *Romanian*

LM: *Romanian* So you you should have a button to start the process. *Romanian* to start the process and make an account. *Romanian*

DU: *Romanian*

LM: Yes like, Diana is saying that it's really good that we have a big font, and the information is, seems like, really readable and clear. Is the apply, and look and they have a print button if they want to print the steps.

DU: *Romanian*

LM: Also, there is an apply now button. Does that work, Evelyn?

DU: *Romanian*

LM: Yes, and now you, you don't you don't have to fill in. If you check the button like *Romanian* you can move forward.

ET: Yeah. And then for this one, she can just click anywhere and it should

LM: *Romanian* Yeah. And then you can introduce more information about the applicant.

ET: She can just confirm at the bottom for this.

DU: *Romanian*

LM: This is just an overview of the steps. Yeah, *Romanian*

DU: *Romanian*

LM: No, that's not clickable. Yeah, if you move to the right a bit. Yes, that is where you see.

DU: *Romanian*

LM: Yeah. So here you have all the documents that are required normally *Romanian*

DU: *Romanian*

LM: Yeah, thing is that you can have, Evelyn where is the notification?

ET: So, in this case you have because you haven't submitted the whole application yet, because you haven't uploaded all the files. So, if they don't want to upload the income document and then go through and then submit it then that's when like the notification would come because the social worker hasn't checked all the files.

LM: Oh, okay, and is the upload button applicable now?

ET: Yeah, for the if you click on the upload for the income document.

LM: *Romanian*

ET: Yeah, then from here she should be able to submit the application for the social worker to.

LM: *Romanian*

DU: *Romanian*

LM: Okay, it's like the yellow button, to the right.

DU: *Romanian*

LM: Okay, Okay. oh, can we do anything else here Evelyn?

ET: Did it not go through? It should go over to the next screen. Let me just. Could she try it again?

LM: Okay *Romanian*

DU: *Romanian*

LM: And if you go to the right a bit. Yeah, you know, if you go on the *Romanian*

DU: *Romanian*

LM: And here, if you go right here. So yeah, you can see the comment from the social worker. *Romanian*

LM: Okay. And now, we go back.

ET: So, from here she can re upload on the...

LM: *Romanian*

DU:*Romanian*

LM: They're up *Romanian*.

DU: *Romanian*

LM: Okay.

DU: *Romanian*

ET: Yeah, I think these are the buttons that weren't connected.

LM: Oh, okay, *Romanian*

DU: *Romanian*

LM: And if you go back. So yeah.

DU: *Romanian*

LM: Okay, so what's next? I think...

ET: So originally, so we had it so that once you re uploaded it, it would go, it would like, Submit the, she can resubmit the file, and then it would be approved, but because right now that button isn't working you can't get to the end.

LM: So **Romanian** it's hard to get to the next phase. Is there anything else that you can see here? Or we can go directly into Figma again.

ET: We could also take a look at the social worker pages. If possible. We'd have to go into, I don't know if she can't access.

LM: I think it's better that you show this like it will be hard for her to navigate like if we have to go in figma.

ET: Okay, I mean we can go straight into Figma. I think we just wanted them to to try it out and see what they liked.

LM: Yes, the social worker flow. Is it here as well?

ET: Yeah, I can send a link to it.Let me just make sure that this works, just so that it starts at the same point. But I guess before we get into that did she have any like other comments on things that she liked about like this flow or things that she thinks can be approved, that she hasn't mentioned?

DU: *Romanian*

LM: Let me put it down, and then I will say everything I want to make note of what you are saying.

DU: *Romanian*

LM: Okay, yeah. I think this could be the next step. *Romanian* So Yeah, so Diana says that it looks good. It's nice that it it spares the applicants of of some some trips to the City Hall social service, and that he can, they can upload here all the documents. But the main thing is that you still need a physical documents, and then you need a scanner, and this is also a problem for many. So like a proper service should take this into account that they they like scanning the documents, it's also it's also one of the hard steps. Also as it looks now, it's like it won't be for everybody, because people so, some digital competencies to use this. So i'm not sure that for some applicants is like the applying online is hard in itself, or the app can be made easier I'm not and also I will ask Diana *Romanian*

DU: *Romanian*

LM: Okay, yeah. So Diana said that this like applying online will be hard for some applicants, but not because the site is difficult, but because it's like hard for in itself, for them.

DU: *Romanian*

LM: Yes, *Romanian*

DU: *Romanian*

LM: Yeah, it would be easier for the like if they could use this on their phones, and they could take a picture of the files so they don't need to use a scanner, and yeah. So, she thinks the texts are easy, like it looks, it seems easy to navigate but yeah maybe I don't know. People will have to adapt and with the digital skills like the yeah, it's it's how the world goes now, I don't know.

DU: *Romanian*

LM: Yeah, Yeah, maybe the traditional option of taking the files personally should still be valid, available for some people who cannot, like don't have the digital skills. But it's not up to us at this point. And also she said that it would be nice if the doctor could fill in a form directly on the platform, so yeah. This is like for, for additional features. Maybe you could just show the social worker flow quickly. *Romanian*

DU: *Romanian*

LM: Can she close this?

ET: Yeah, I can send her a different link to have the social worker stuff come up, if she wants to do that.

LM: *Romanian*

DU: *Romanian*

LM: Okay, so Diana just that this, the person who will review the files is, it's from the county level the DGASPC. So, what yeah, it's it's okay so with the *Romanian*

DU: *Romanian*

LM: *Romanian* Okay, so just Diana just said that we will need a collaboration of the authorities for this to work, of course. And yeah, even for the doctors, yeah, it would be nice to have them involved but like right now, it's not like, it may be that they won't like it to use it, because they have already a lot going on with the vaccines and a lot of stuff. They are a bit like super, there is, they have a lot of demands so it might be too much. Unfortunately, we'll have to wrap up *Romanian*

DU: *Romanian*

LM: *Romanian* Thank you a lot.

ET: Thank you.

DU: Bye.

LM: Bye, and we keep in touch.

Appendix M: Motivation Romania User Testing Transcript

ET: Evelyn Tran (Interviewer) | Daniel Huma: (Interviewee) | LM: Laura Micle (Translator, C4R)

ET: You can record. Okay, Sophia is reporting right now. So that sounds good. Okay, Yeah. And you should have screen share access. So should be set for that.

LM: Yes, but where is it? It should be agreed by this screen share at the bottom. I just. I was looking for my file. Okay, there could be no I'm not sharing broadcasting. Now am I? Am I sharing Figma?

Romanian

LM: So the way its phrased, the renewal of of the certificate. so it's I I didn't use the correct word in Romanian, so it's rnot renewal it's, like reevaluation it's like the official term, and the evaluation can have 3 types, so it can be at term, so when the former certificate is expiring, at the request of the applicant, it can be before term, I think, if something changes in their condition, and it also can be at the request of the [DGASP], the agency, or when they have information that the new information that the applicant doesn't qualify anymore.

Romanian

LM: Okay, So this section is a bit too much for the applicant. He may not know exactly what the medical term for his affection/for his type of disability. So it's best to leave the 10 the first official categories like physics, somatic or deaf, blind people, blindness, mental, psychological, or psychiatric [unintelligible], HIV, rare disease and associated. So those 10, and it would be enough.

Romanian

LM: So we were just discussing the steps that I didn't name properly, so the social investigation. This ... and it was a bit confusing. And yes, he also reviewed the documents and They are not required in all the cases. Yeah, so we need to pay attention to the ... because this is distracting if it's not 100% correct.

ET: Yeah, I think the case that we did, for this was someone who was visually impaired. We just based it off of one case.

LM: No, no, that was good like with what it's required medically.

Romanian

LM: So we have some suggestions for further developments. This website would be great ... if it took care of things even after the admission of the certificate. So, for example, it could be made available here in the app for one. And they could use it before they get it through mail at home

ET: The application itself, get started before hand? Is that what you mean?

LM: Yeah, they could. Yeah, they could receive the digital one.

And also for those with degree one of disability, they need.

an agreement from ... picture that they have to use at the City Hall for the City Hall to give them a personal assistant. So it would be great if everybody could see this information here and they wouldn't have to go and take that agreement from the ... agenda and take it to the city hall. All these parties would communicate between each other. And for the other cases, where the disability degree is not the most serious they get the money instantly. They should get the money instantly after they receive certificate so they could input their bank details.

Romanian

LM: So yeah, this looks good. It would be nice something for the complex Evaluation Commission. So after the file is submitted, all the documents are submitted, and the request is made, they have 40 days to approve or deny the file, or move it forward to the committee, to the Commissioner Committee, the ones who make the decision. It would be nice to see how many days they have left, or something like that, and know which file they would have to prioritize. Yes, Additionally, if we are thinking to add the committee as a user, they have 15 days to make a decision. So that would also be for the developments to have this like time status that Yeah, , we we do have

ET: 2 min, so, I don't know if you would wrap it up soon.

Appendix N: Asociația Autism Voice User Testing Transcript

SC: Sophia Calandrello (Interviewer) | Bianca Luca : (Interviewee) | LM: Laura Micle (Translator, C4R)

LM: Would it be okay if I give you a form afterwards, just write your name in and say that, like you participated in this, it's the research procedure for university research. Okay, Thank you. So it would be just a Google Doc. And you just write your name.

BL: We have a lot of forums as well for everything we do. So it's okay, Understand?

LM: Okay, Okay, Okay, So you're recording. I can share my screen.

SC: Bianca. Thank you for hearing this

BL:you're welcome, I can help you with the the experience that we have. We would be happy for parents to be able to apply for the certificates online. It would make their life easier, and, moreover, to have all the information about the process in the same place, not everywhere on the Internet. So that would be really helpful for our beneficiaries.

LM: Yeah, so i'm i'm sharing my screen now? I don't know. can you see my screen.

BL:Yes, Yes, okay,

LM:Just a second. The thing is that we tried to make a prototype, I mean, like. So we also have a website. but not all the buttons are working, and it may be confusing. So that's why I seem to show you directly the screens where we are working on them so I hope It won't be too tiring. Lets try like this.

Romanian

Oh, sorry, I forgot so i'll just see you and we'll be tired sorry, so from our discussion and from other discussions that we had we found that there was a strong need for more clear information about the application procedure, but also about the rights and the benefits that the certificate offers. So we have a few flows in our website, and one is related to the information like general information from the certificate. And One relates to customized information. So you put in some details like about what the categories belong to. And then the steps become a bit more personalized. So we would have something like this certificate. This is by clicking the buttons up there in the menu. The process, like a general presentation of the application process. And this is like just a skeleton. I think that information has to be really well thought out before being put in here. But, the idea is to make everything clear and to use very personal and easy language

BL: Yeah, that's the issue with Romanian law. The language is not very accessible to people that don't have experience with law,

LM: And there would also be a page on benefits. So it's just like a scheme. But this would be part

of the website informing them about the certificate in general, the process in general and the benefits, and then they have the option of doing - Actually, from the first page they can find out the steps, but customized for their specific case. So if they click on this button, start, they can choose if it's the first time vacation or It's reevaluation No, it's a very important Yeah. Then if the applicant is applying for himself. or for somebody else, I think for kids, it's always gonna be the parent or in and you go back. So they will click on either of these and then, presumably they will click it for me, and then they will choose. If they're under 18 or over 18 okay, and also they will have to choose - if they click that they are applying for somebody else, they will choose the type of the relationship to the applicant if it's a parent, the legal representative. Yeah, I mean, you know another family member possibly it's not the best differentiation. But yeah, this is like the general idea. Then they can, and will also be able to choose. This is the disability that we've found from the testing that we did today that it's too much, and it will be confusing.

BL:How does this part help the persons

LM: So we checked them, for the [unintelligible] from Sector 6. and they have these categories, and the medical files that they have to submit are a bit different, depending on the disability or on the specific applicant. Maybe it's too specific in this case.

10:14:09 So this is like if you don't know me yeah so this could be.

10:14:22 Yeah one, because you don't have you might comment, or

BL: You might have persons that have certain health problems, and they might not find themselves here. And no whatever mental health problem. And so they need to continue. If they cannot find themselves in this list, maybe you can add another or some space where they can add their medical problem. So, because when I look at the psychiatric evaluation of our children, they are very complex, and some of them have 2 or 3 diagnoses.

10:15:10 So now, okay,

LM: Okay, So we also put that you can.... But I get it that this step is confusing or...

BL: Maybe I don't know if it's useful to add the place where they can write their diagnosis. That's helpful

LM: Yeah Okay, An idea. Yes, okay. So after they've gone through these steps they receive their own process which is personalized for what they picked. And I think this one is for an adult who's doing this for the first time. And it's got the site problem. So this would be different for all the combinations, slightly slightly different. So I know that they have to visit the medical, the family doctor, the Gp. Only at their first evaluation. If they are doing a renewal, they don't have to do this anymore. And this would be the page with the steps like it's purely informational at this point, but it's more catered to their disability and their specific case.

BL: It looks very clear, it's...

LM: And everybody does that yeah, something like this. And then he can apply. He can start. They can start the application. So if they click this button they will make an account which is here.I won't insist on this because it's like very creating an account, and after they create the account they

can put the rest of the information. What is necessary I don't know, maybe the national number, and there is one for the person who applied which created the account, and the other one for the applicant themselves. In case it's the parent. so we will have the information for both of them. So they put in the details, and this is the applicant page. I don't know if we thought that on the left they could have another, We can. And they could see which steps they have. concluded/finished already. So now they have to upload documents. And if they click on this visualization critical document, they have a list of all the documents they need to upload, and the ones that are already uploaded. So I talk with a master in English. I mean I'm why we are not properly translated. If they need all the medical, So the medical letter, the specialist. They will have here, like psychologist evaluation, psychiatric evaluation upload.

BL: They can upload any type of documents. Pdf, JPEG, PNG,. or any, the platform will allow them to use.

LM: Okay. No? yes. and if they click on one of the documents, they can see more information about what it should contain, and how it should be. I don't know the types of documents that need clarifications. And then when everything is uploaded they can just send and then they can see the status of files. So the case manager also has an account, and he will be able to review the documents. I will show you the case manager account in a few minutes, when what? After the case manager reviews the files he will see for every document, if it's approved, or if it needs some changes, or if it's, still hasn't been reviewed, so the documents can have different status and if it needs changes it click if they click on that, on this file, they will be able to see a comment from the case manager. And they will say the reason why they are not approving the documents. It may be that here imagining is the cloudy of what we're looking at, or the document is too old. I mean something.

BL: They can write the case, the manager can write the reason right, it's not. I think they can write because there can be many reasons that are not okay.

LM:Yeah, yes, they can write, and also the applicant. If you take the file on this they will see they uploaded and they can re-upload. We have a [card]. They can reupload, or they can see again the comment from the social worker. And maybe the social worker has left more comments. So they can see every year. Or if the document was denied or rejected, they can erase it there. Also they can upload additional documents. So if it's something that it's don't know specific to them like [*romanian*], or something that doesn't happen to everybody or It's not valid for every case they can upload additional documents, but also the social worker can also request additional documents. They also have a button, the social worker, where they can say, I need this document and leave comments, and they will have this section where they have the additional documents requested by the social worker.

BL: Yeah, this is great because they vary between local authorities, the documents and it's good to have the ability to change, and that, you know, receive any notifications by email when they are requested to add documents or when their card is ready and they don't need to worry about anything.

LM: Yeah, this is a good point. We have not included this yet, but I think it's a good idea.

BL: Just thinking about it, because maybe they like a document, and they don't check the platform, and they logged in after 3 days and they see that they need to add something, maybe if they receive an email notification just when the file is accepted, or when they meet something that would make the process faster for them. I don't know, it's just unlikely.

LM: Yeah, that's, I think, that's an important point. We initially made an inbox like a chat. Or yeah or more like an inbox in the app but we Haven't included it in the end. But yeah, they could also receive the notifications in their own mail. This is so good, and I don't know and I will show you the page. Yes, I think the communication by email is also important, important for the appointment or for anything going to the home evaluation and give us a channel or for going out today. [*romanian*]

Oh, yes, again. So here is the page for the case manager. Here they have the database with all the a dashboard with all the applicants, and they can see their status if they're from is approved and complete, or in a review or deny it, or if just files are submitted. And if they click on a specific applicant, they can see all the documents and the status of the pretty particular documents and if they click on a particular document, let's say this is a new submission it hasn't been reviewed. So they opened the file, and they can edit it here, and here they can change the status of the document to approve their needs changes or deny it, and they leave comments here. In a commentary, and they save. And these changes and the comments will appear through email. Now that you mentioned, and in the applicants dashboard. Okay, and yes, and they can also request additional documents. So they have here each document and this window will pop up, and they can select the document from a predefined list, or they can just write the name of the document, and then they can also leave comments here about how it should be, or any clarification, and if they click approve request this new line will appear in the applicants dashboard with the name of the file, and how it should be. And they will be able to upload it. So both the case manager and the applicant can request and upload the additional document, name them and comment on them. So this is what we have, so far.

BL: What I was thinking on the page where you have all the cases being approved. Maybe for me it would be helpful to see for those that are not finished, to see when something happens when the family has made this submission of a new document, let's say the yellow one in review. When a parent does something to what I've asked, I have a red dot or something to know to look into that file and check what has changed. Otherwise I would basically have to recheck what's not finished and see if they've done something. That would make things faster for me to know where in which place there has been a change.

LM: Yeah, Yeah, that makes a lot of sense.

BL: I don't know if that's complicated, because everything looks very very complicated. and I don't know how much time did you have to do this?

LM: So Sofia and Charlotte and 2 other students worked on this. We were just involved in coordinating this and talking to people, but they did all the work, so I don't know how many hours they put into what they know. But they've worked a lot. Yeah,

SC: We did this in 2 weeks.

BC: Well, it's amazing, it's very complex, You know.

LM: Since I last talked to you I think I spoke to you two weeks ago. Yeah. So that's when they started working on it but so yeah, it's just screens for now.

BC:Yes, the plan I think is a structure but it's very complex, very detailed, very on the subject. Maybe practical, not too fast you know. It would be amazing for us to get to you for everybody to get to use this type of platform. You know the life of everybody would be much easier okay

LM: Thank you I mean they've worked really hard. It's really nice that you say this.

BL: You can notice it's very complex from my point of view. Thank you very much. A lot of authorities, not in social services, don't have this type of platform in Romania. So yeah, and the ones that we do have are not so user friendly.

LM: Yeah, no, no at all. Yes, I know. I know. Well, we were talking that it would be great for everybody to have access to this app, even the Committee Commission, so they don't have to move files around. This should be a one stop for everybody and even afterwards, after they received the certificate, they could see their bank details, so they get the allowance here. So it's I think it could be very complex in the end if every all the parties involved have an account and manage everything here

BL: What feedback did you receive from the local authorities, or were they involved? Or did you manage to speak with somebody?

LM: No, not really. We spoke to somebody from within the commission but from an NGO and we are planning to- when we've included your feedback, we're planning to show it to them and then they can take this to, you know. Take this into account when they need to change procedures. I mean they could all work pass also we don't charge money from authorities. So this is how we work, but we would need external funding. I really hope there will be a way to develop this.

BL: Yes, it's even if it's not something national, if every county has its own platform, very similar to this. If they apply the law differently, it would be much easier for us.

SC: Do you have any additional comments or suggestions that could be implemented? I know you've given some throughout.

BL: Oh, there is nothing else I can think of, she said, about the social worker being able to make appointments and set up home visits through this platform. Maybe this can be helpful because it's easier from our experience to vote and text message and email if- Sometimes parents don't see they may not only the parents in the email. And if they send emails for home visits, if they're like that the parents won't see those events in time. So text messages would have

LM: Yeah that's a good idea.

SC: Thank you

BL: There's nothing else that I can speak of at the moment. If you have questions for me.

LM: Do they usually take pictures of the documents, or they normally scan them?.

BL: It's easier for them to take a picture. You know they It's not that sorry do they do this

LM: Do they take pictures at the beginning?

CL: When we ask them for documents, the majority of the families send pictures. They make pictures and you can see what's around the document. You can see a copper. Yeah, it's a journey to the shop to scan, so they make a photo and send it to us.

LM: But it's possible that it won't be good enough quality for when they...

BL: Maybe in time they can learn to make a photo that has a good quality for the size. I think it's important, maybe they may create a process that has big signs. I don't know how that will be managed. I work on a course I do at the moment on a platform and they have a maximum size for the documents I upload, and they don't accept the ones that are bigger than what they have. I don't know how you will manage this part.

LM: And how about the homepage? I went through really quickly through the first part. We've made it very basic. We, the group, Sophia, and the rest of the group. Do you think this is a good layout, or do you think that it should be for me?

BL: It looks nice. I like the layout. I like the colors. Maybe here where you write [*Romanian*]. Maybe looking at it I'm not sure about the difference between the two of them. What do you mean by just a certificate and about certificate? Maybe you can write.

LM: Yeah, that's a I think That's a mistake. It was an about page which is about the project, and when we translated it, it was about a certificate, but it was just an about page, and I think it contains terms and conditions so not this. and clicking on the certificate or this. Oh, what they call we take the user to this general information,

BL: You know, and I like the button begin and check. It's inviting to click through and see what it is it is about. Maybe when the second part, not this one, the next one certificate information. Maybe the text is too dense, maybe a bit more summarized here. Yeah, yes, more friendly yeah just I took the information from the I don't know from one of the digestive pitches.

BL: if it's possible. Yeah, if it's possible to make it friendlier. I I know it's not very easy because I do that in my work. But if it was somebody could have something that you have my what okay, Oh, something that you might add hearing information. It was just a thought. [unintelligible] about the process. Families sometimes think that, you know. if they get the certificate, their children will not be able to do certain jobs like pilots or police or military. They are. There are some myths around receiving this type of certificate, and maybe something about that information part would

be helpful.

LM:No: great. Yeah,

BL: Sometimes our parents say look, I'm not sure that they want to apply for the certificate. I'm not sure how this will affect my child in the future. Who will find out about him that he has a disability. I don't want for nobody to find out, and we assure them about the confidentiality of the process that only the structures you want to have access to this information, not friends or people, other people that are not involved. Maybe this might be helpful for them to learn about the confidentiality around the process.

LM: Yeah, that's a very good point here. Okay, and maybe any additional resources. And yes, this could, though, with a conference, needs a lot of her for it to be. Okay, So thank you, Bianca, if you don't have any other comments, we can wrap this up. And yeah, thanks a lot so much.

SC: Yeah thank you so much.

BL: You're all the way welcome. I hope that my ideas were helpful. And if you need any feedback or anything, just drop me an email, and we'll try to help out. And I really do hope we will manage to implement something like this in [unintelligible].

LM: Yeah. Yeah, Well, thank you. We will keep in touch, we'll let you know how this is going. And yeah, hopefully, hopefully, we can take it forward. Do something with it. Okay, So yeah, i'll send you the link with the form. Yeah, thanks a lot. And we'll keep in touch and possibly we'll all. And because our research this year involves others, other issues as well for people with disabilities.

BL: keep me in touch and good luck with your project. Bye.

SC: Thank you.

Appendix O: Coded User Testing Notes

Compliments Suggestions Feedback

Fundatia Pentra Voi (Diana Ungureanu)

- -Making an account later- make that clear
- -Information is readable and clear
- -Big fonts
- -Spares applicants of trips to the city hall social service, can upload documents here
- -Still need physical documents and scanner- could be an issue for some
- -Won't be for everybody- applying online can be a challenge
- -Would be easier if they could use this on their phone and take a photo of documents instead of scanning
- -Seems easy to navigate
- -Would be nice if a doctor could fill in a form directly on the platform
- -Need collaboration with authorities for this to work

Motivation Romania (Daniel Huma)

Translation issue: not renewal, reevaluation, 3 types, it can be before term if the applicant wants to reapply, at term, or by the DGASPC if there is new information that the applicant does not qualify anymore

Disability decision tree: they may not know the medical term, leave 10 categories; physical, somatic, HIV, rare, associated etc.

Personalized Steps: named improperly, Social Investigation, documents are not required in all cases

Overall Nice so far: would be great if the file is visible to all authorities, after it moves from complex evaluation, next authority can see it

Suggestions-

- Could take care of things after admission of certificate, certificate made available online, before mailing
- Those with the most severe disability, they need an agreement to have a personal assistant from DGASPC to city hall, could be online
- Those with less severe, they could input bank details to receive money instantly
- Add something for complex evaluation submission, after docs are submitted, they have 40
 days to approve or deny, would be nice to see how many days they have left, and which files
 to prioritize
- If thinking to add committee as user, they have 15 days to approve, could add this timeline

Asociata Autism Voice (Bianca Luca)

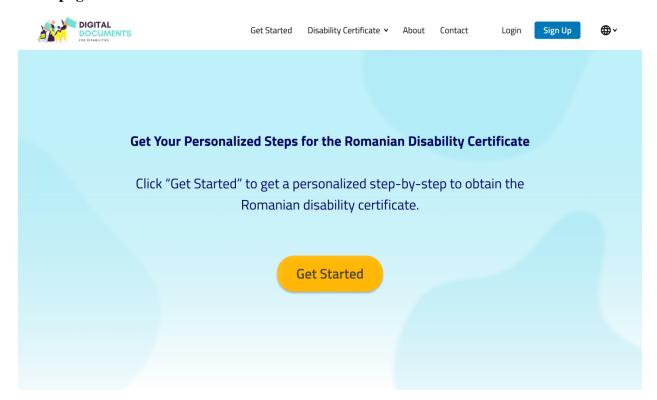
Notes:

- -A person might not find their condition on the types page- maybe add a space where they can add their condition, or be able to skip
- -Personalized steps page: looks very clear
- -Documents page- good to have possibility to change/add docs
- -Email notification for added documents?-might be beneficial to have email notifications to move the process along
- -Social worker page- for those not finished, see when something happens (submission of new doc), have a red dot to notify and see what has been changed (makes it faster for social worker)
- -Very practical and detailed, would be amazing for everyone to get to use this platform
- -Include text message and email as options for notifications (home visits)
- -easier to take a photo of documents to upload, many people do this instead of scanning
- -Nice colors
- -Certificate vs. about certificate (mistake in header)
- -Summarize about the certificate- less words and make friendlier
- -Add to info: might not be able to do certain jobs with having the certificate (police, etc.)
- -Some parents don't know how the certificate will impact child in future- who will have access to their info/know they have the certificate
 - -learn about the confidentiality of the process

Appendix P: Prototype Images

English

Homepage



General/Public Website



Get Started

Disability Certificate 🗸

About Contact

Login

Sign Up



About the Certificate

Process

Benefits

Additional Resources

About the Certificate



The Romanian Disability is certificate is an asset in place by the Romanian government (Law 448/2006 "Regarding the protection and promotion of the rights of disabled persons") to support people with disabilities living in Romania. There are many benefits in place by the government for certificate-owners to take advantage of. There is a detailed process to obtain the certificate, which involves visiting various medical specialists and government.

Next >

About the Certificate



About the Certificate

Process

Benefits

Additional Resources

Process Overview



There are a number of visits and assessments by doctors and government establishments to recieve a certificate. Above is the basic premise, but below will provide more details on the general process applicants take to acquire the certificate. Each visit will provide you with multiple documents and assessment reports. Keep these together for your file.

1. Visit your General Practioner

a. They will provide the applicant a referal to see a specialist

2. Visit your Specialist

a. They will provide an examination report, and a medical letter

3. Return to your General Practitioner

a. Obtain the applicant's medical history file

4. Visit the City Hall to prepare for a social evaluation

- a. Bring all previously acquired documents to this appointment
- The social worker will tell the applicant which other documents you need. These can be medical or personal identification documents

5. Apply for a Social Evaluation at the City Hall (SPAS)

a. The applicant will need all the documents they were told to provide at the last City Hall appoinment

6. Home Evaluation by SPAS

a. This include a home visit by a social worker, and interview

7. Submit full file at county level DGASPC to request a complex evaluation

- a. There will be other documents to fill out, like an application and information processing consent waiver to apply
- The applicant may be asked for more medical or information documents

8. Interview by the DGASPC

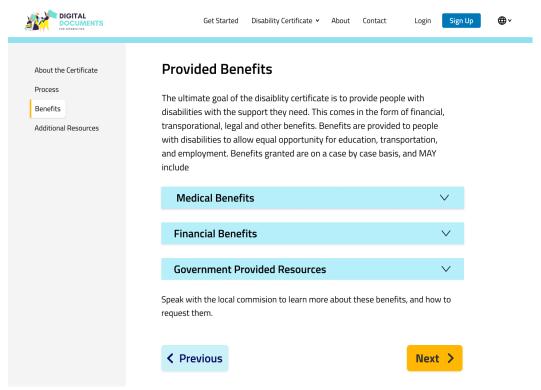
9. Obtain Certificate!

We understand this is a lengthy process, and the application may be rejected at any point. Use our additional resources tab to learn how to request personal or legal support.

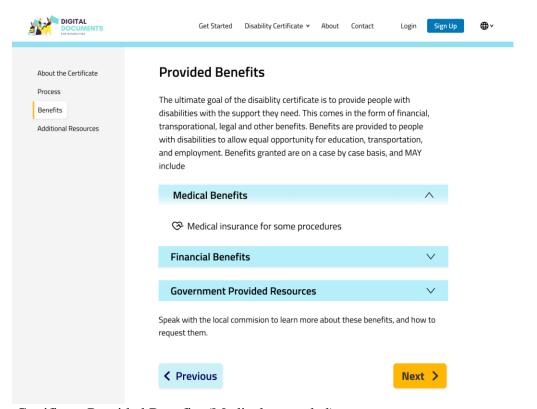
Click **Get Started** at the top of the page to learn more about the applicant's personalized certification process.



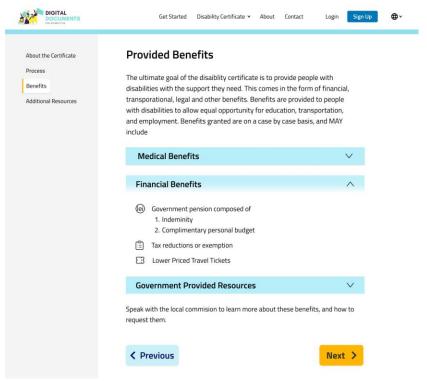
Next >



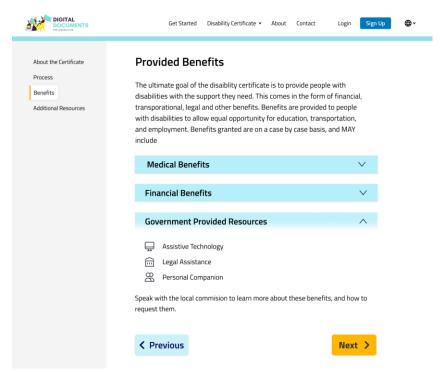
Certificate Provided Benefits



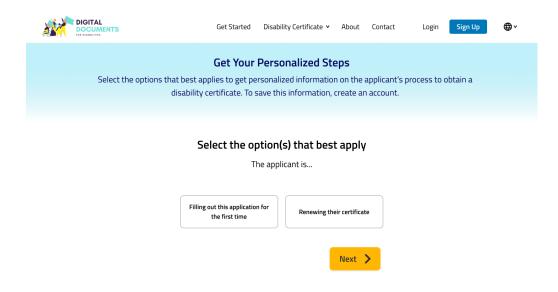
Certificate Provided Benefits (Medical expanded)



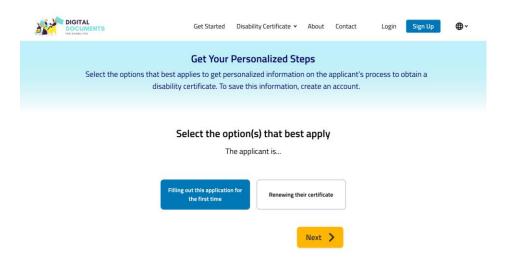
Certificate Provided Benefits (Financial expanded)



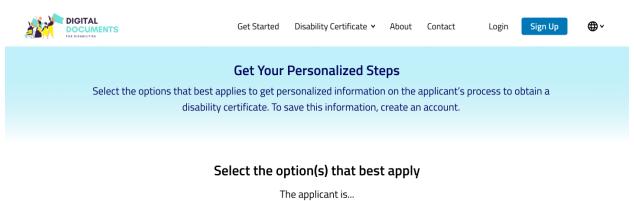
Certificate Provided Benefits (Government Resources expanded) **Decision Tree**



First decision tree prompt: Filling out this application for the first time or renewing their certificate



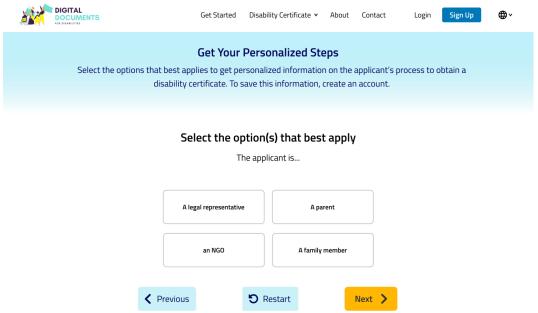
First decision tree prompt: Filling out this application for the first time selected



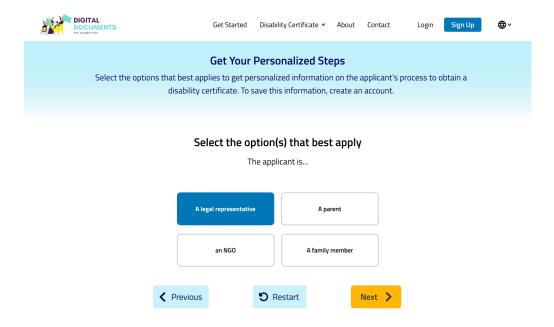
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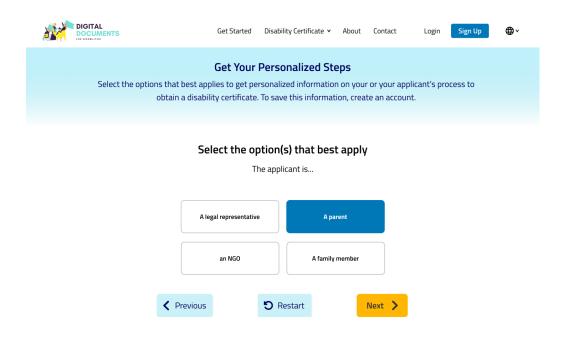
Second decision tree prompt: The applicant is myself or someone else



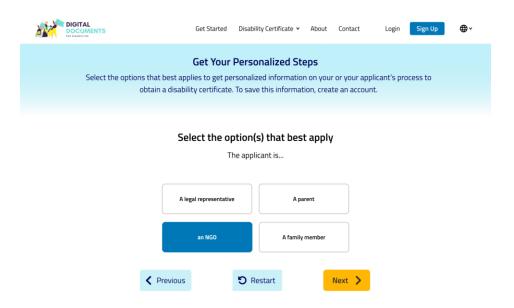
Third decision tree prompt: if selected someone else, a legal representative, a parent, an NGO, or family member



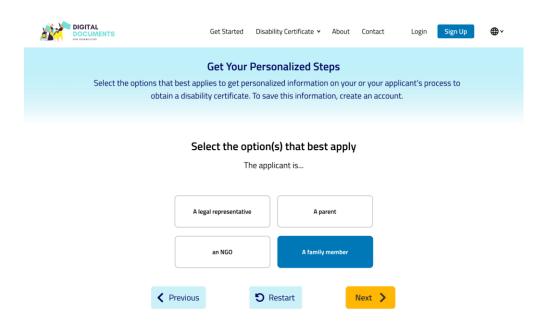
Third decision tree prompt: if selected someone else, a legal representative selected



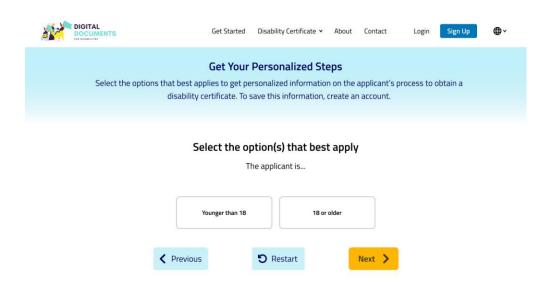
Third decision tree prompt: if selected someone else, a parent selected



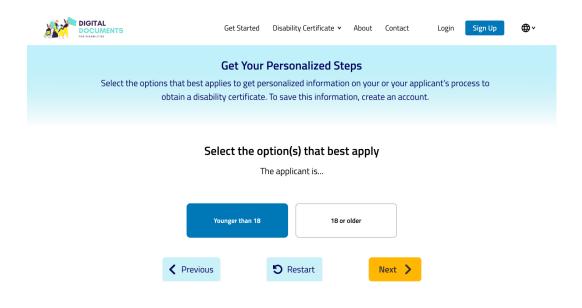
Third decision tree prompt: if selected someone else, an NGO selected



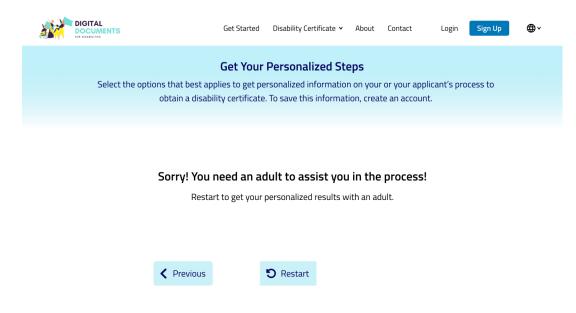
Third decision tree prompt: if selected someone else, a family member selected



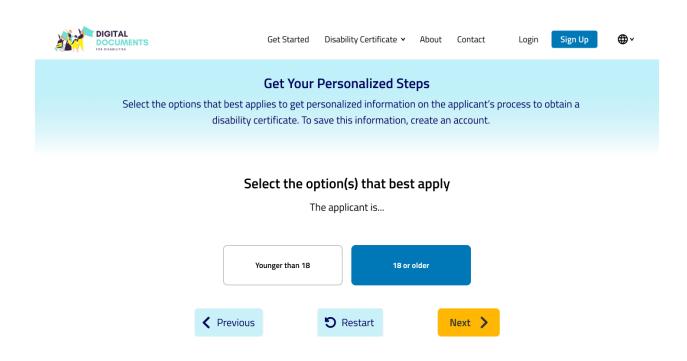
Fourth decision tree prompt: The applicant is younger than 18 or 18 or older



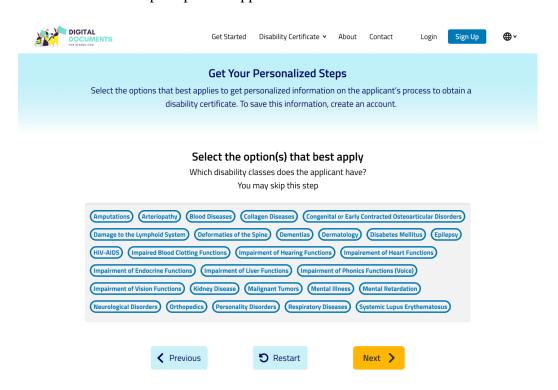
Fourth decision tree prompt: The applicant is younger than 18 selected



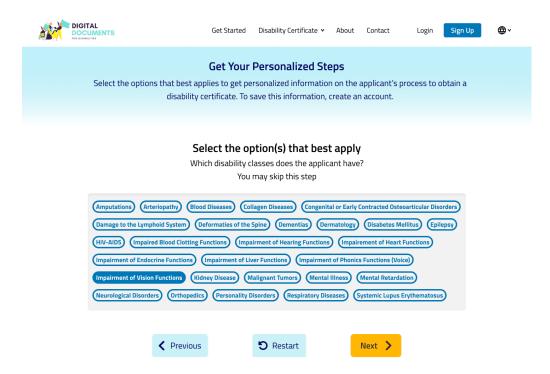
Error page for an applicant who is applying for themself and younger than 18



Fourth decision tree prompt: The applicant is 18 or older selected



Fifth decision tree prompt: disability type, skippable

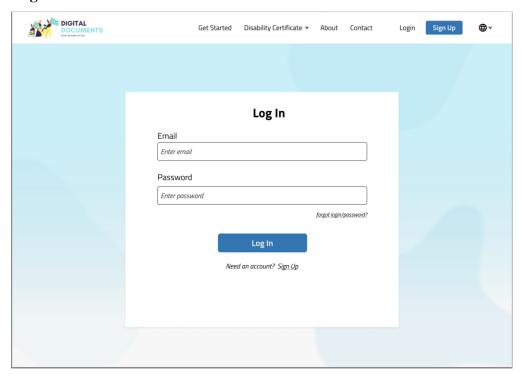


Fifth decision tree prompt: disability type, Impairment of Vision Function selected

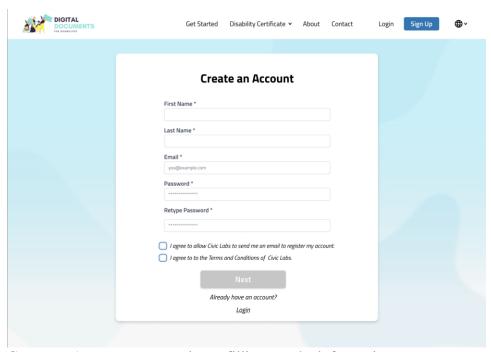


Results of a personalized decision tree: adult applying by themselves for the first time with impaired vision function

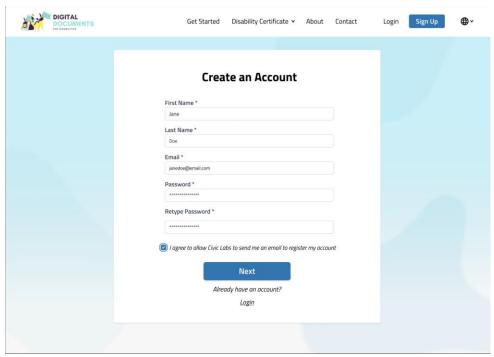
Log In Screen



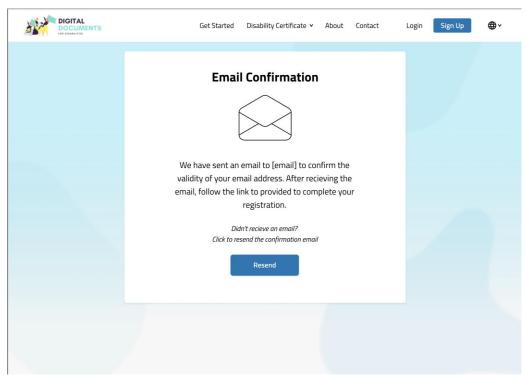
Create an Account Screens



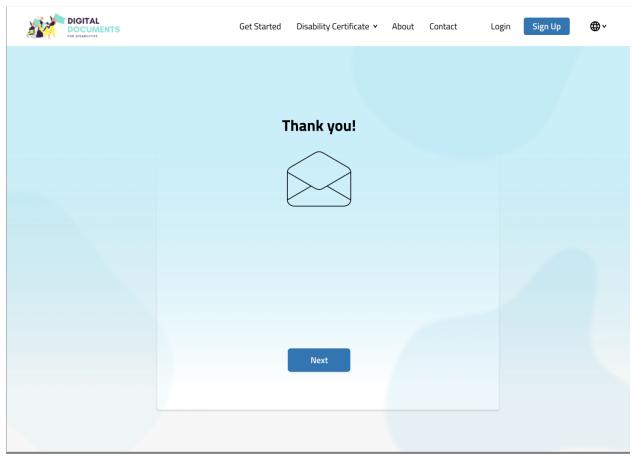
Create an Account screen prior to filling out the information



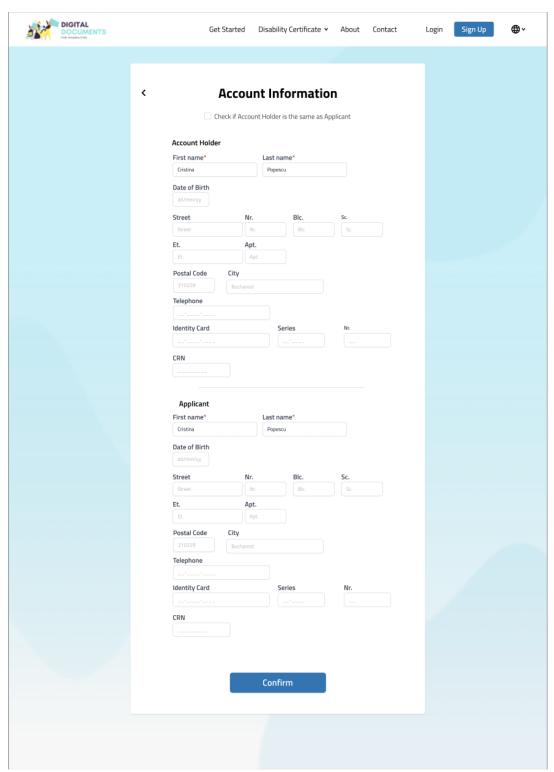
Create an Account screen after filling out information and accepting clauses



Email confirmation screen

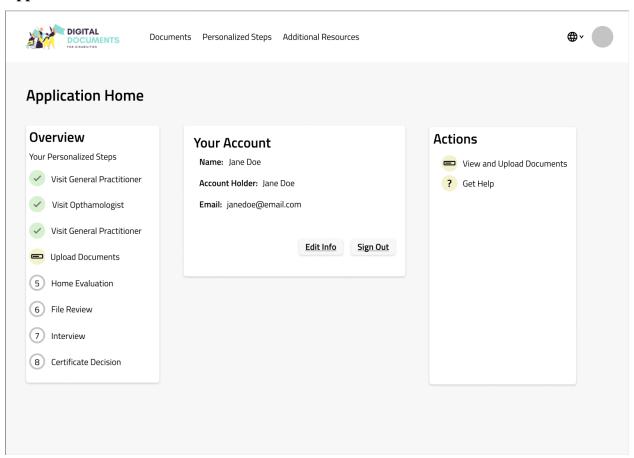


Thank you screen

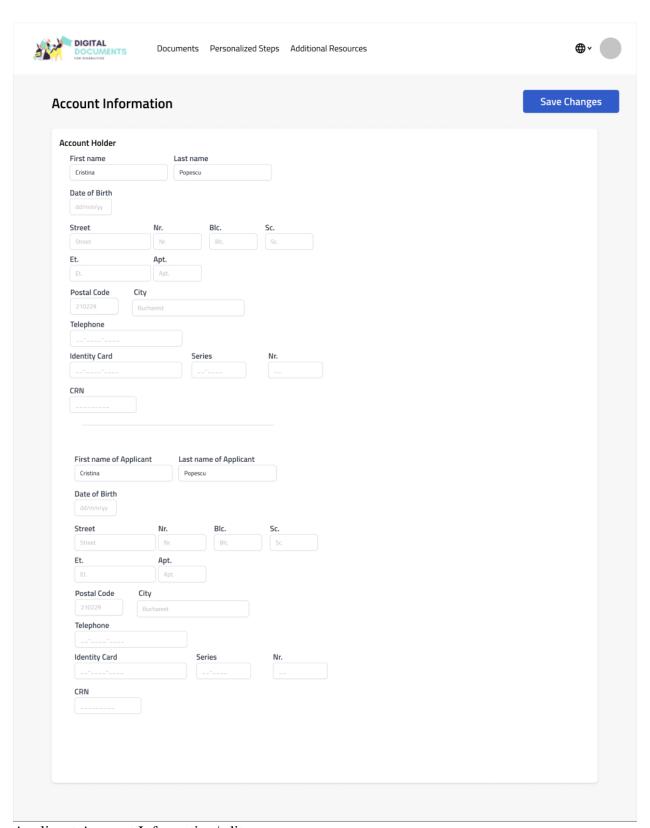


Adding account information screen (account holder is self or someone else)

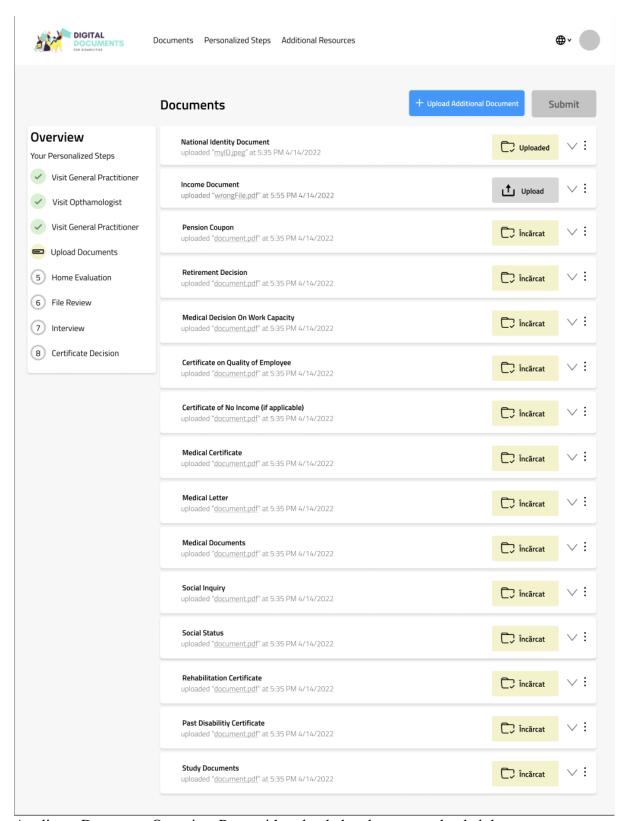
Applicant Interface



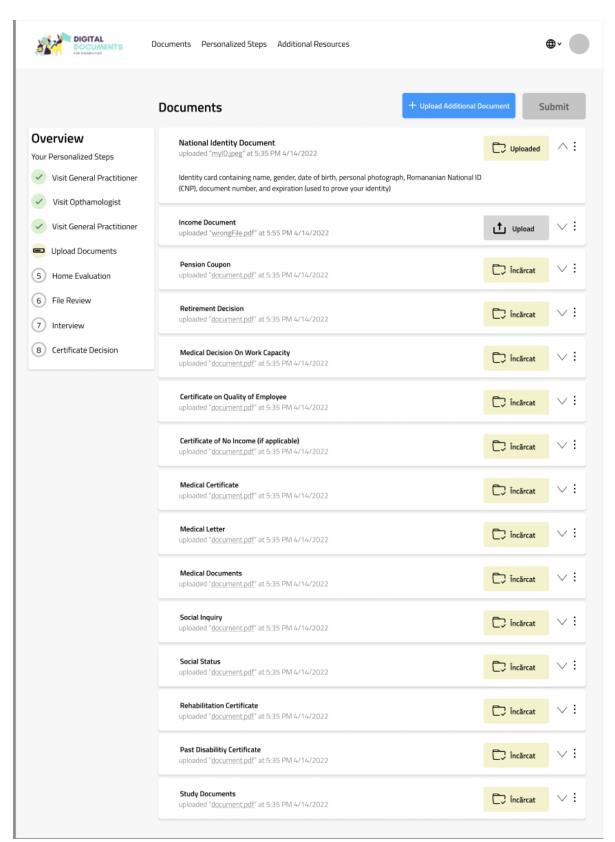
Applicant Homescreen



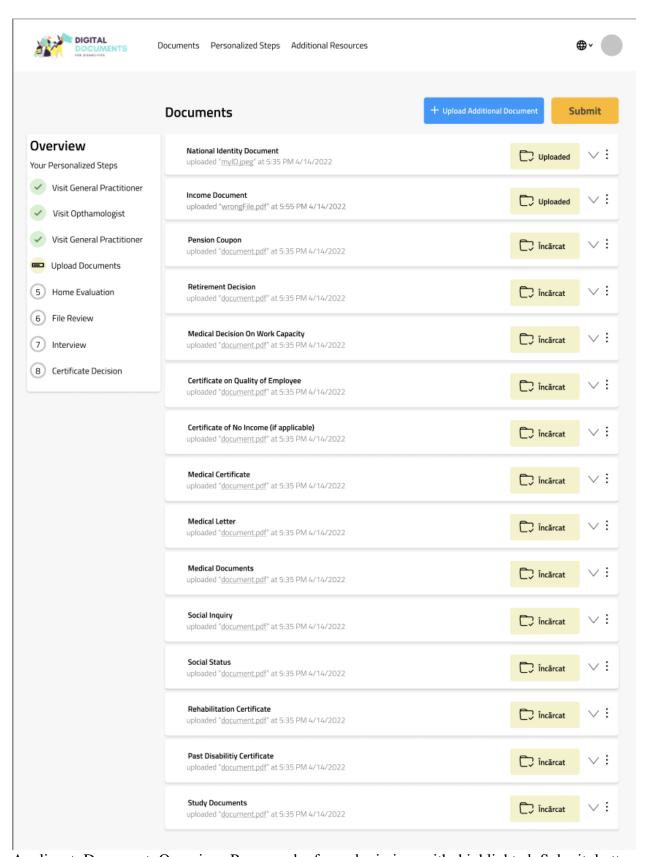
Applicant Account Information/edit page



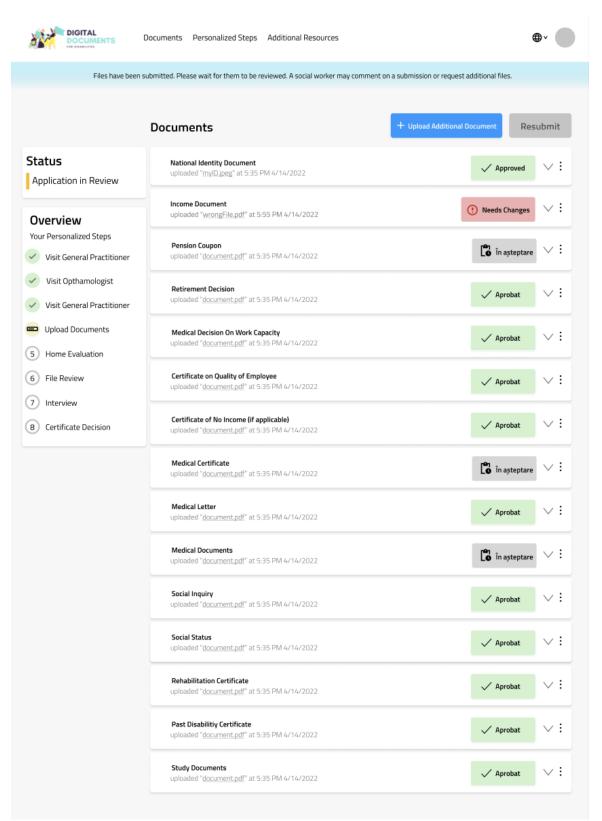
Applicant Document Overview Page with uploaded and not yet uploaded documents



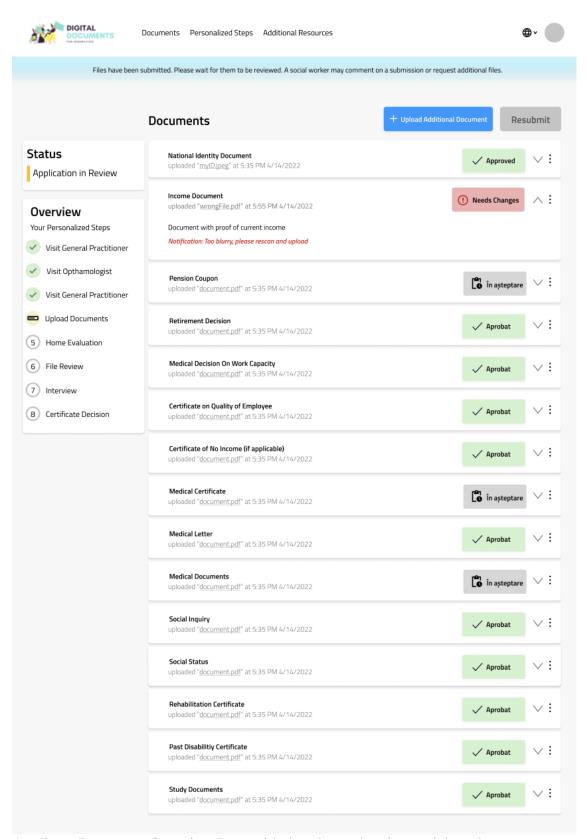
Applicant Document Overview Page with dropdown showing description of document



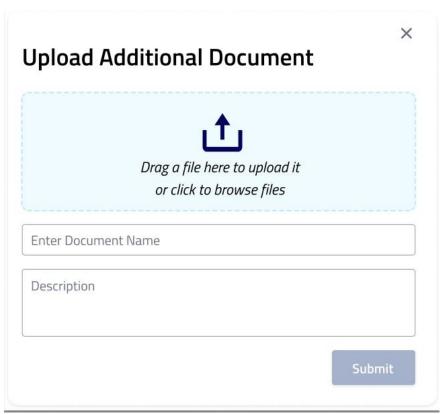
Applicant Document Overview Page ready for submission with highlighted Submit button



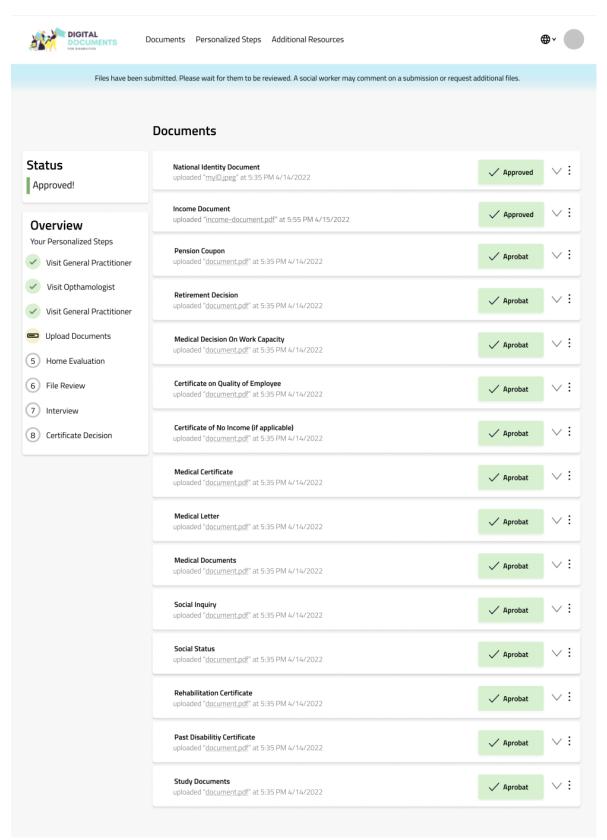
Applicant Document Overview Page after submission with accepted documents, documents in review, and a document that needs changes



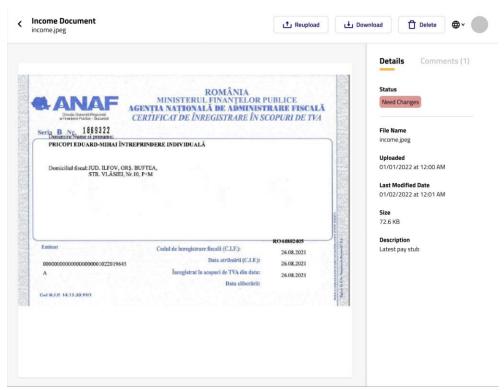
Applicant Document Overview Page with dropdown showing social worker comment



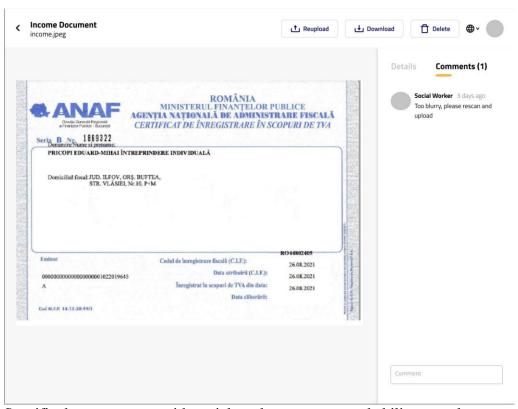
Upload Additional Document popup with title and description



Applicant Document Overview Page with approved documents and status at the top left

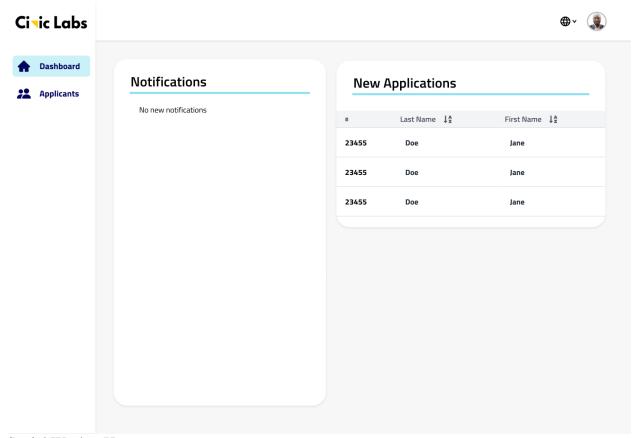


Specific Document page with description and status

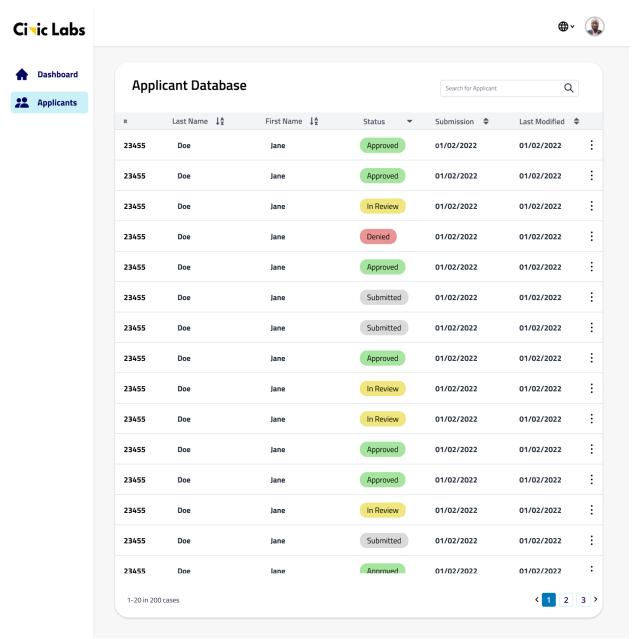


Specific document page with social worker comment and ability to reply

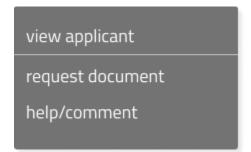
Social Worker Interface



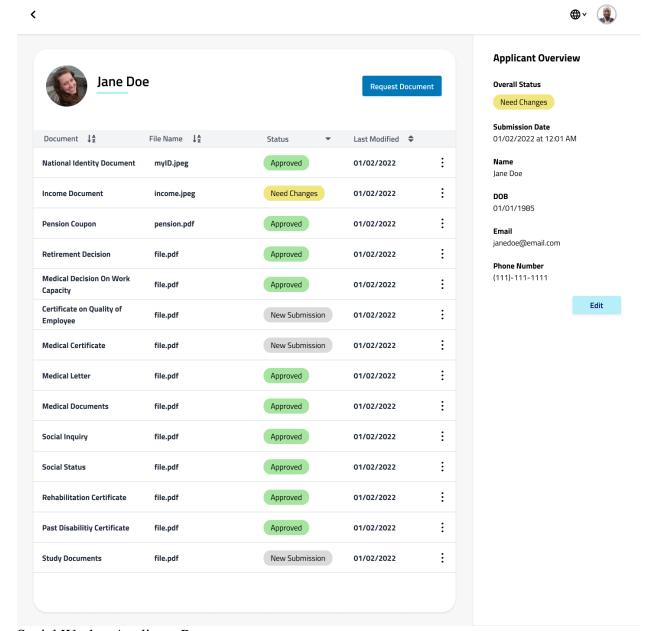
Social Worker Homescreen



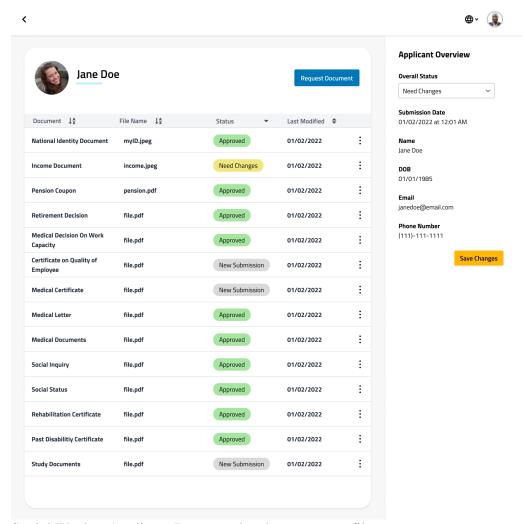
Social Worker Applicant Database



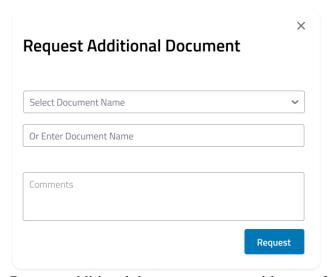
View applicant dropdown options (kebab, three buttons on side)



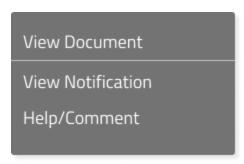
Social Worker Applicant Page



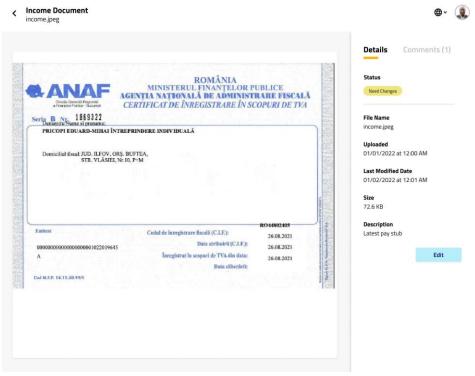
Social Worker Applicant Page - make changes to profile status



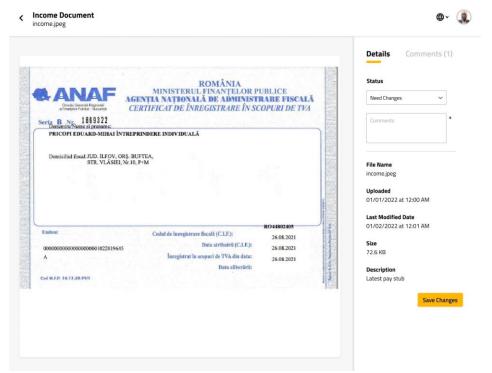
Request additional document popup- with name from dropdown or original and comments



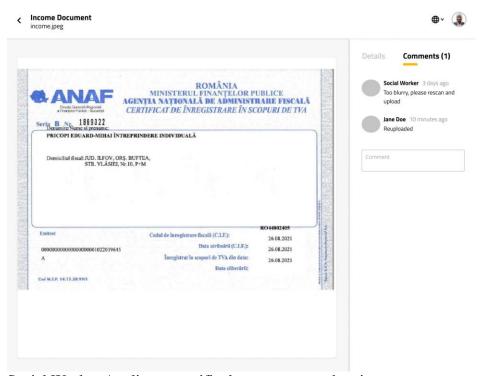
View document dropdown options (kebab, three buttons on side)



Social Worker Applicant specific document page with details



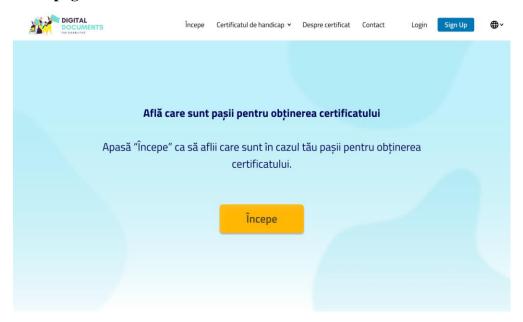
Social Worker Applicant specific document page with the ability to edit status and leave comments



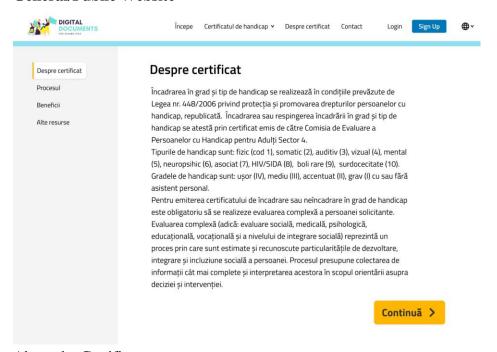
Social Worker Applicant specific document page showing comments

Romanian

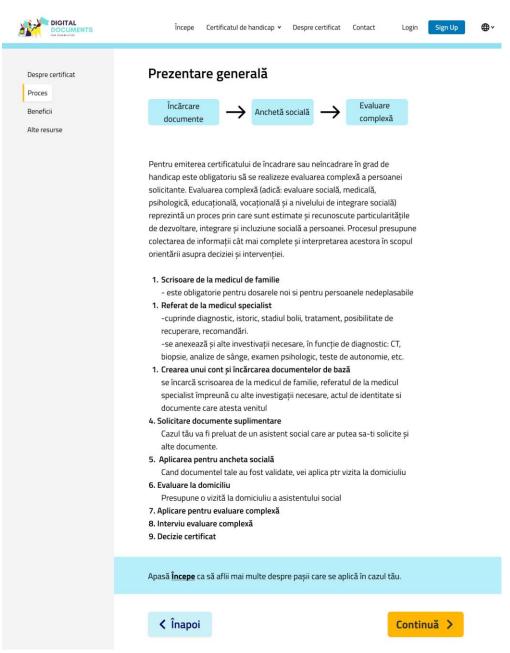
Homepage



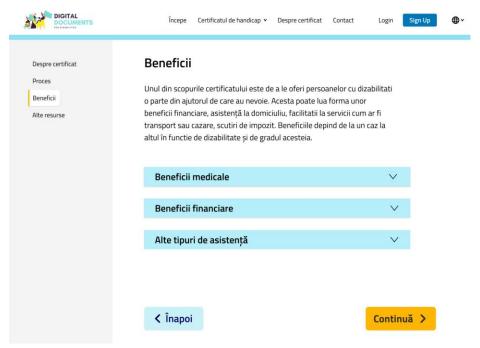
General/Public Website



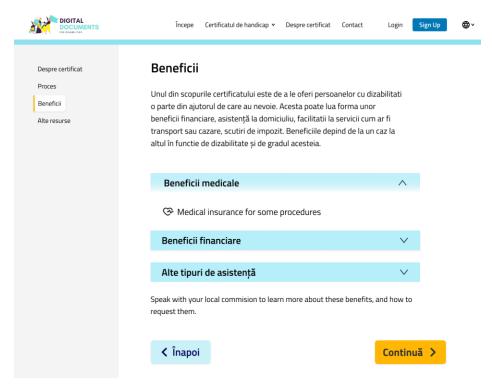
About the Certificate



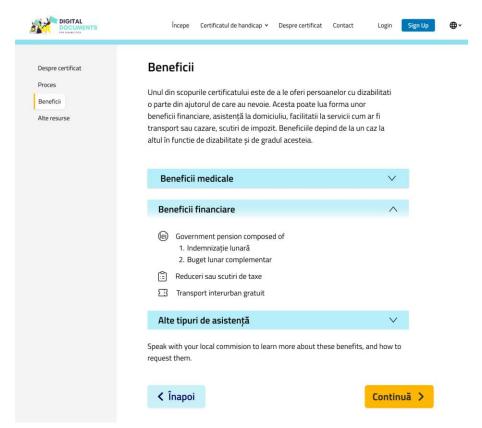
Process Overview



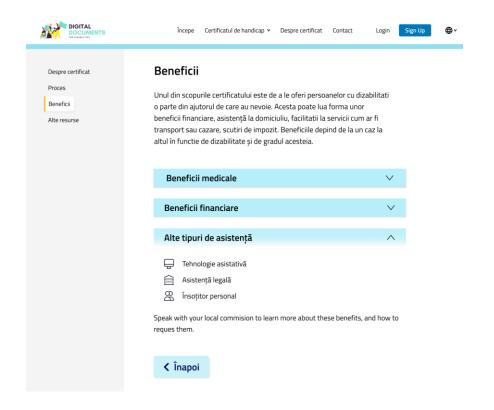
Certificate Provided Benefits



Certificate Provided Benefits (Medical expanded)



Certificate Provided Benefits (Financial expanded)

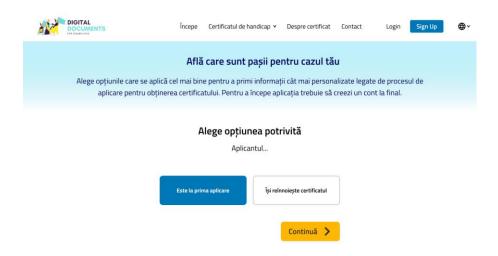


Certificate Provided Benefits (Government Resources expanded)

Decision Tree



First decision tree prompt: Filling out this application for the first time or renewing their certificate



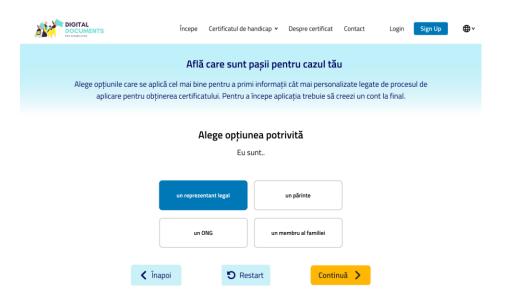
First decision tree prompt: Filling out this application for the first time selected



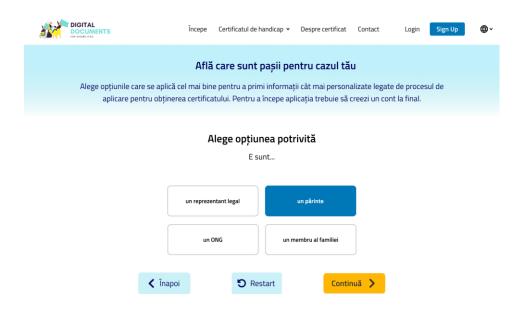
Second decision tree prompt: The applicant is myself or someone else



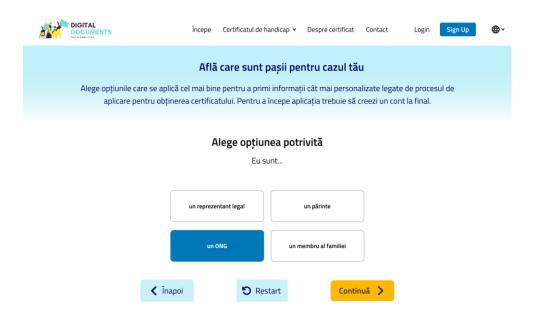
Third decision tree prompt: if selected someone else, a legal representative, a parent, an NGO, or family member



Third decision tree prompt: if selected someone else, a legal representative selected



Third decision tree prompt: if selected someone else, a parent selected



Third decision tree prompt: if selected someone else, an NGO selected



Third decision tree prompt: if selected someone else, a family member selected



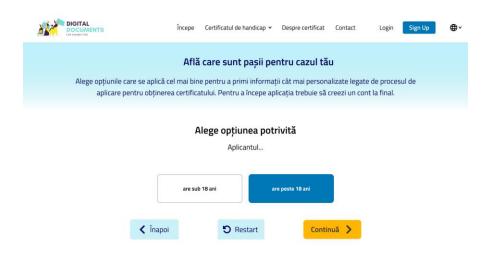
Fourth decision tree prompt: The applicant is younger than 18 or 18 or older



Fourth decision tree prompt: The applicant is younger than 18 selected



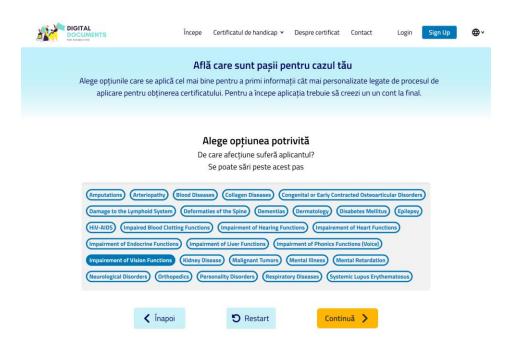
Error page for an applicant who is applying for themself and younger than 18



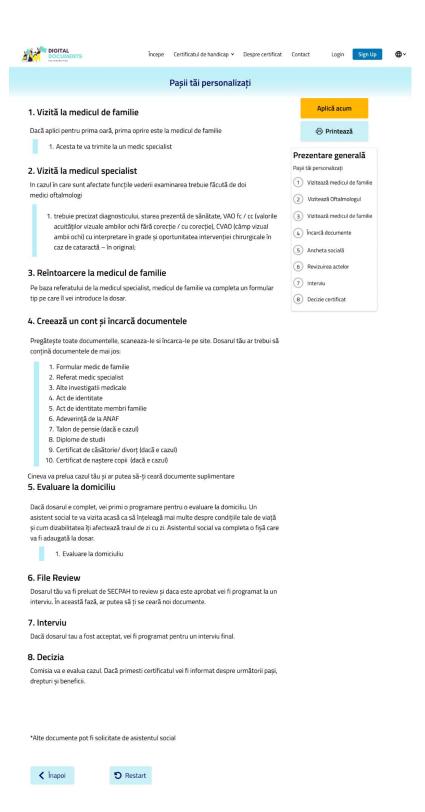
Fourth decision tree prompt: The applicant is 18 or older selected



Fifth decision tree prompt: disability type, skippable

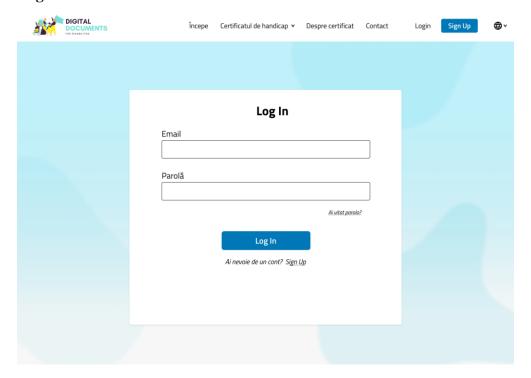


Fifth decision tree prompt: disability type, Impairment of Vision Function selected

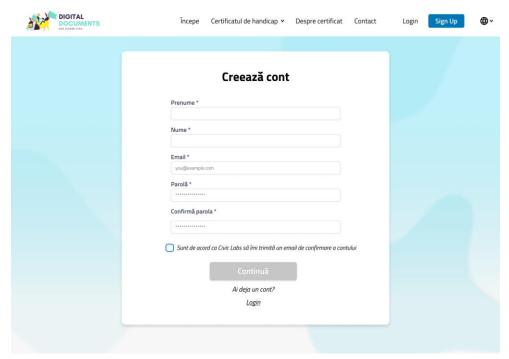


Results of a personalized decision tree: adult applying by themselves for the first time with impaired vision function

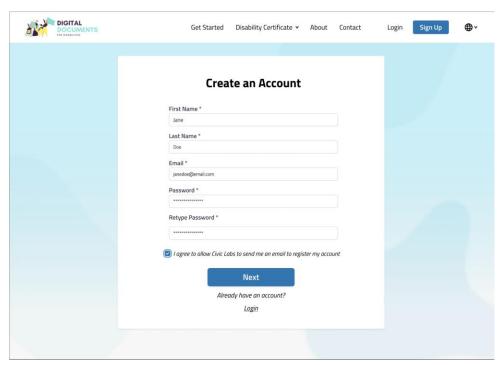
Log In Screen



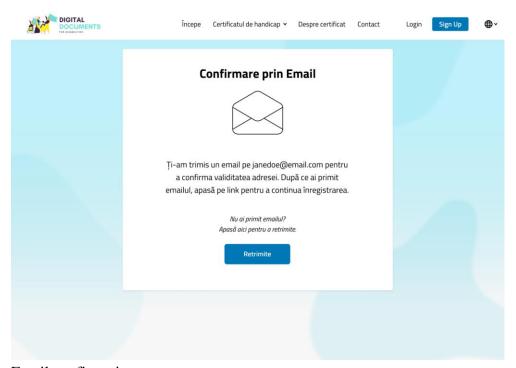
Create an Account Screens



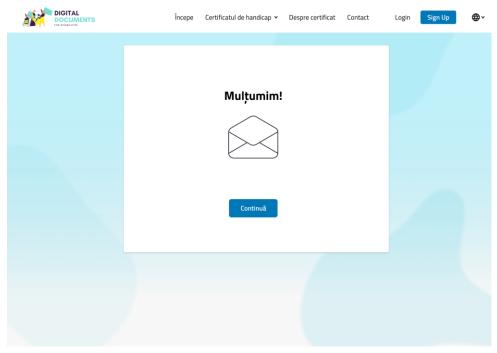
Create an Account screen prior to filling out the information



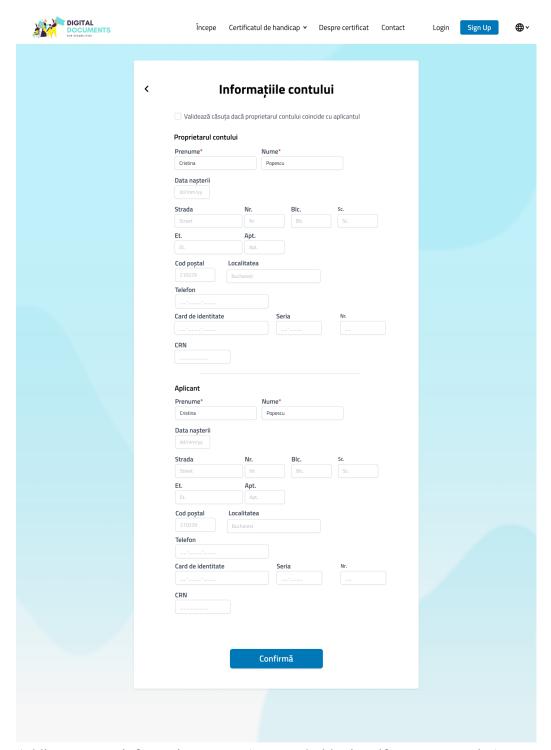
Create an Account screen after filling out information and accepting clauses



Email confirmation screen

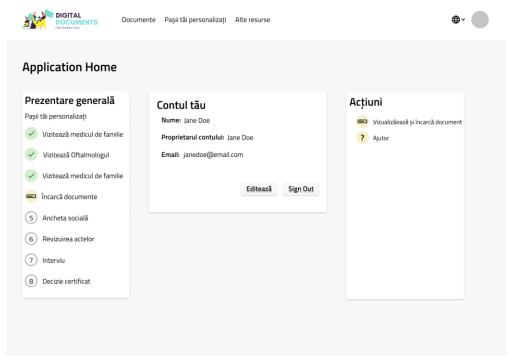


Thank you screen

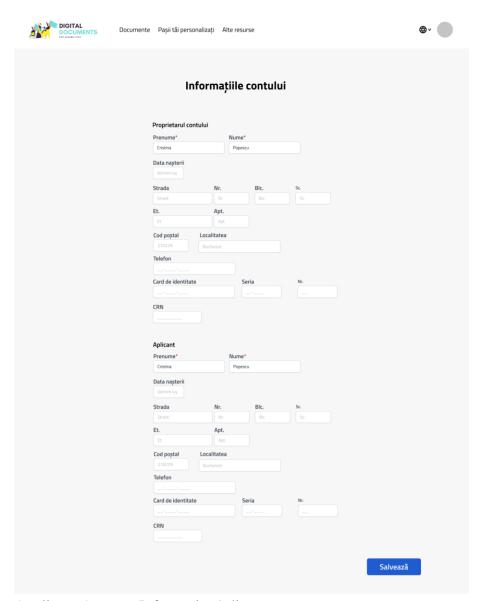


Adding account information screen (account holder is self or someone else)

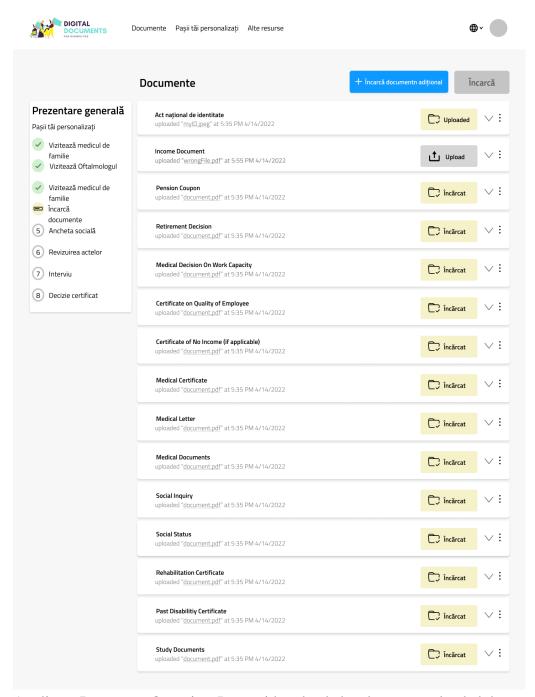
Applicant Interface



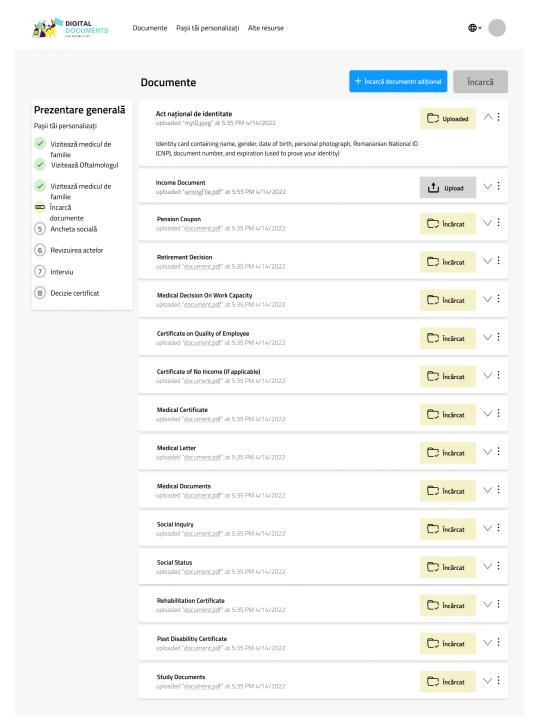
Applicant Homescreen



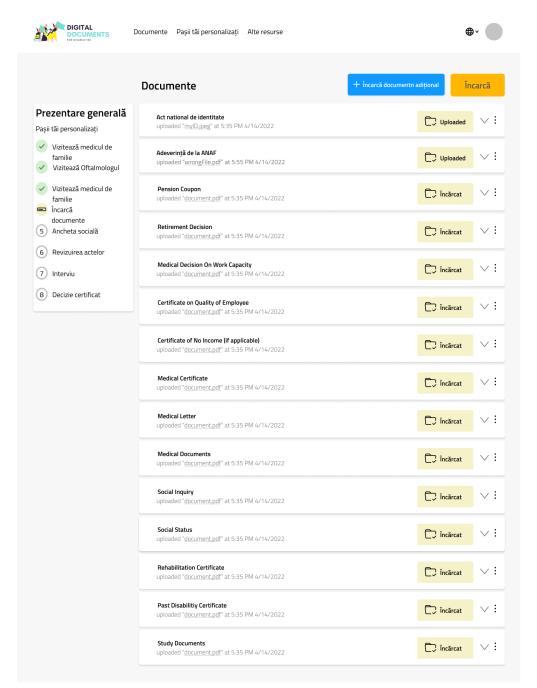
Applicant Account Information/edit page



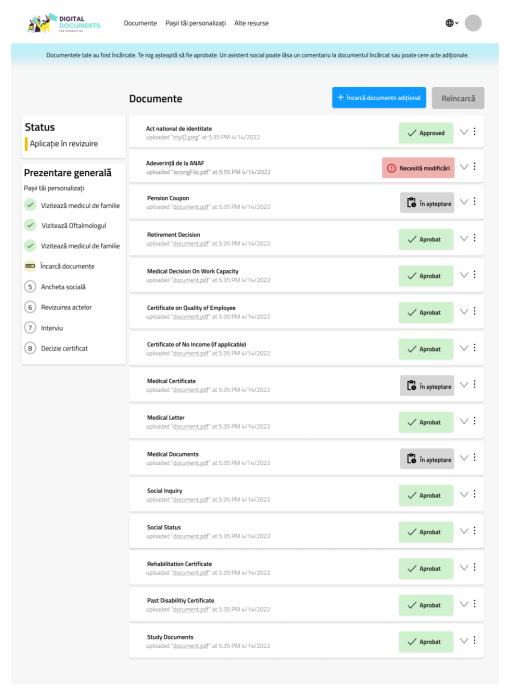
Applicant Document Overview Page with uploaded and not yet uploaded documents



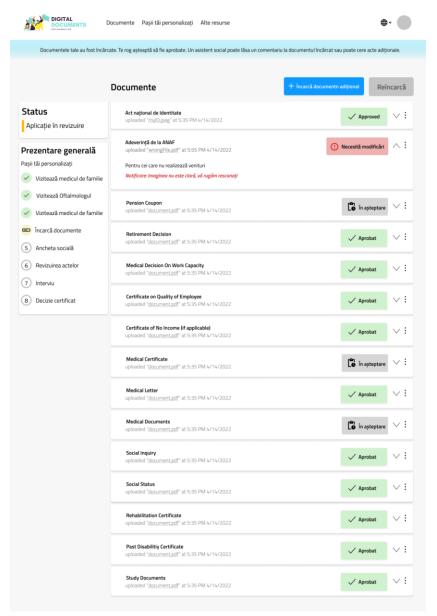
Applicant Document Overview Page with dropdown showing description of document



Applicant Document Overview Page ready for submission with highlighted Submit button



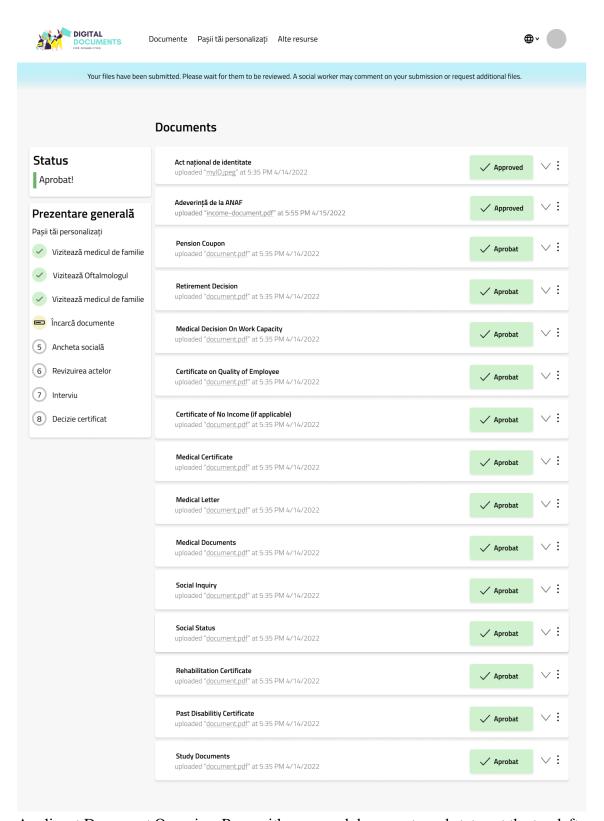
Applicant Document Overview Page after submission with accepted documents, documents in review, and a document that needs changes



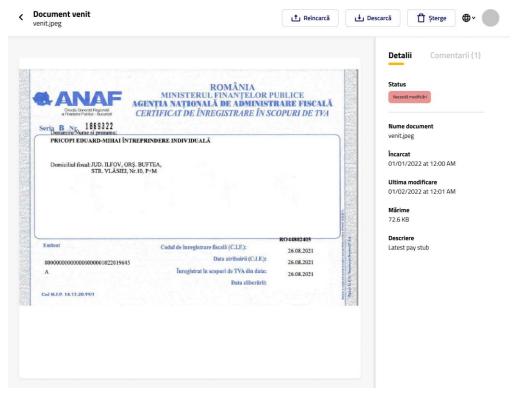
Applicant Document Overview Page with dropdown showing social worker comment



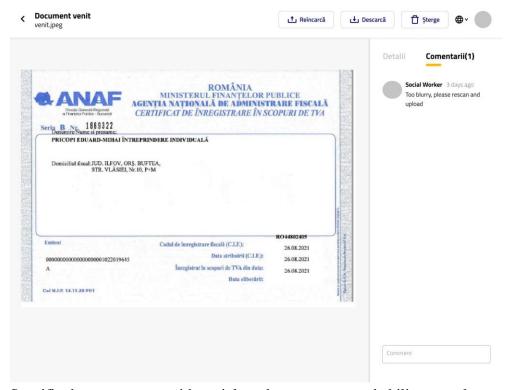
Upload Additional Document popup with title and description



Applicant Document Overview Page with approved documents and status at the top left

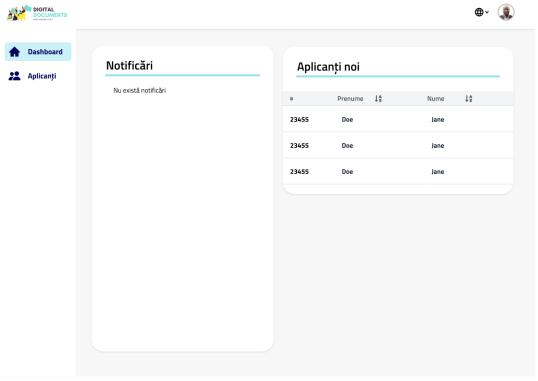


Specific Document page with description and status

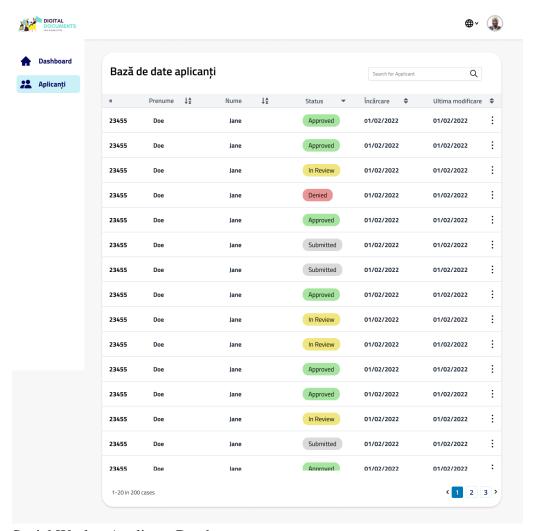


Specific document page with social worker comment and ability to reply

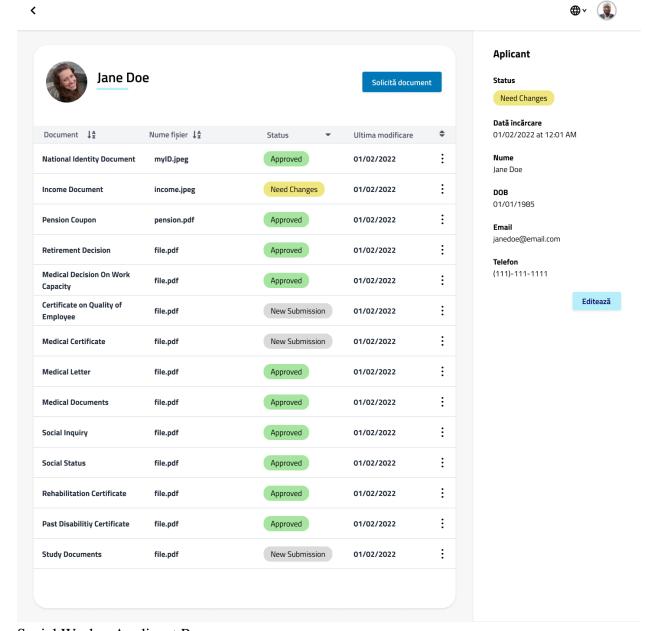
Social Worker Interface Screens



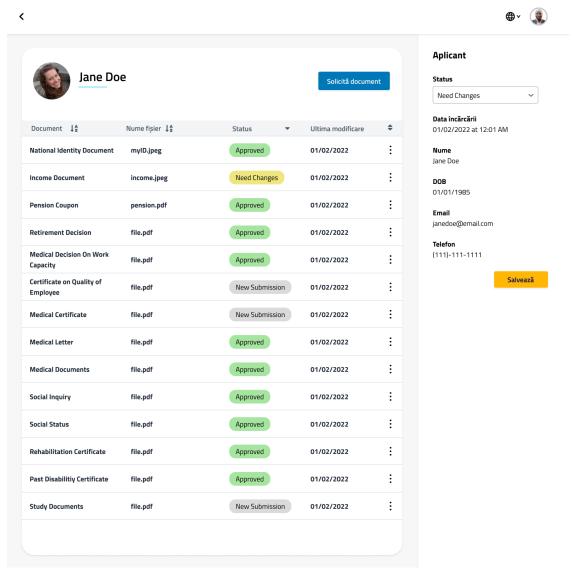
Social Worker Homescreen



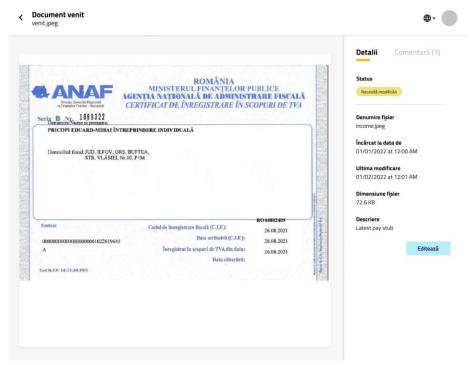
Social Worker Applicant Database



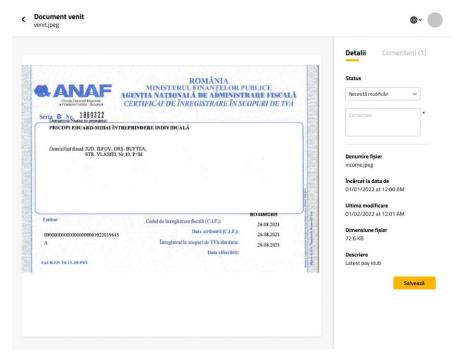
Social Worker Applicant Page



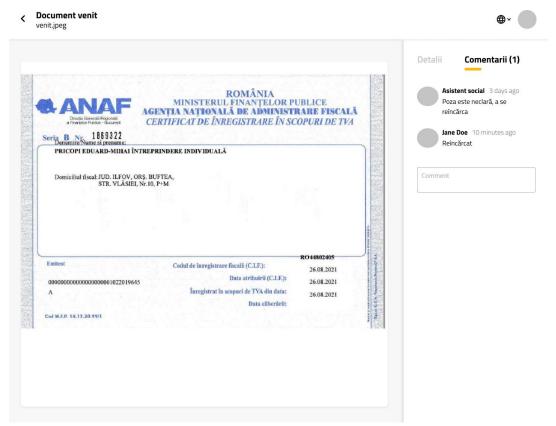
Social Worker Applicant Page - make changes to profile status



Social Worker Applicant specific document page with details



Social Worker Applicant specific document page with the ability to edit status and leave comments



Social Worker Applicant specific document page showing comments

Appendix Q: WPI IRB Approval

WORCESTER POLYTECHNIC INSTITUTE

100 INSTITUTE ROAD, WORCESTER MA 01609 USA

Institutional Review Board

FWA #00030698 - HHS #00007374

Notification of IRB Approval

Date: 21-Mar-2022

PI: Robert Kinicki
Protocol Number: IRB-22-0551

Protocol Title: Study on Methods of Increasing the Accessibility of

Handicap Certificates for Disabled Romanians

Approved Study Personnel: Kinicki, Robert~Danielski, Althea M~Calandrello, Sophia F~Clewley, John D~Kokernak, Charlotte M~Tran, Evelyn~

Effective Date: 21-Mar-2022

Exemption Category: 2

Sponsor*:

The WPI Institutional Review Board (IRB) has reviewed the materials submitted with regard to the above-mentioned protocol. We have determined that this research is exempt from further IRB review under 45 CFR § 46.104 (d). For a detailed description of the categories of exempt research, please refer to the IRB website.

The study is approved indefinitely unless terminated sooner (in writing) by yourself or the WPI IRB. Amendments or changes to the research that might alter this specific approval must be submitted to the WPI IRB for review and may require a full IRB application in order for the research to continue. You are also required to report any adverse events with regard to your study subjects or their data.

Changes to the research which might affect its exempt status must be submitted to the WPI IRB for review and approval before such changes are put into practice. A full IRB application may be required in order for the research to continue.

Please contact the IRB at irb@wpi.edu if you have any questions.

^{*}if blank, the IRB has not reviewed any funding proposal for this protocol