Disabled persons' digital and technological inclusion in the Finnish society

Mandatory questions are highlighted by [required] following that question.

Background Information

1.	How are you filling in the questionnaire? [required]
	I fill it in independently
	○ I fill it in with the help of another person
	another person fills it in by interviewing me in the language of the questionnaire
	another person fills it in by interviewing me interpreting into another language (e.g., sign language, other spoken language)
	Other:
2.	What is your age in years? [required]
3.	What is your gender? [required]
	O male
	○ female
	Other
	O I don't want to answer
4.	What is your mother tongue? You can select all the options you feel are your mother tongue. Finnish Swedish Finnish sign language Finland-Swedish sign language sign speech Sami
	☐ English
	Other:
5.	If you are an immigrant, how many years have you lived in Finland?
3.	What is the highest level of education you have completed? [required]
	basic education: comprehensive school or equivalent
	upper secondary education: vocational education and training or equivalent
	upper secondary education: general upper secondary education or equivalent
	Bachelor's degree or equivalent
	Master's degree or equivalent
	university-level postgraduate degree (licentiate, doctor, or, e.g., medical specialist)

7.	Which of the following Select all the options	. , .	ur current w	orking life status?	[required]	
	vocational rehab					
	paid employmer	nt: full-time				
	paid employmer	nt: part-time				
	family leave					
	= '.	n or cash rehabilitatio	on benefit			
	unemployed old-age pension					
	entrepreneur					
	Other:					
8.	Which of the following Select all the options hearing impairm physical disability visual impairments	that apply to you. ent	nave? [requ	ired]		
9.	How much do the fol who do not have that	-		have affect your c	laily life com	pared to people
		doesn't affect my daily life at all.	a little	somewhat	a lot	very much
	hearing impairment	0	0	0	0	0
	physical disability	0	\circ	0	\circ	\circ
	visual impairment	0	0	0	0	0
10.	If you have other disa	abilities in addition, w	hat are they	?		
11.		king credentials, a med d that allows you to ide e away, show, or tell	obile certific dentify elect identification uired] help with au	ate, or a certificate ronically completed numbers, passwithentication.	e card. Do y ely independ ords, codes	ou have an ently, meaning

12.	Do you have the right to use the interpreter service for the disabled?
	O no
	O yes
	O I don't know
13.	Where do you live? [required]
	in an apartment that is part of a service house, housing unit, or similar
	in an owned apartment, rental apartment, or other similar apartment that is not part of a
	service house, housing unit, or similar
	Other:
14.	Do you get help from other people because of your disability (or disabilities)? Select all the forms of assistance that apply to you.
	personal assistant
	help from a close person living with me (other than designated caregiver)
	help from a close person living in a different household (other than designated caregiver)
	home help service or home care
	caregiver (contract with the municipality)
	help from the staff of a service house, housing unit, or similar
	Other:
15.	How many inhabitants are there in your municipality of residence? [required]
	less than 5 000
	O 5 000 - 10 000
	O 10 001 - 20 000
	20 001 - 50 000
	50 001 – 100 000
	O over 100 000
16.	To which major region does your municipality of residence belong? [required]
10.	The regions belonging to each major region are listed in brackets after that region.
	Helsinki-Uusimaa (Uusimaa)
	Southern Finland (South Karelia, Kanta-Häme, Kymenlaakso, Päijät-Häme, Southwest Finland)
	Western Finland (South Ostrobothnia, Central Finland, Pirkanmaa, Ostrobothnia, Satakunta)
	Northern and Eastern Finland (South Savo, Kainuu, Central Ostrobothnia, Lapland, North
	Karelia, North Ostrobothnia, North Savo)
	Åland
17	Are you currently in a relationship, and if so, do you live together?
11.	Are you currently in a relationship, and if so, do you live together?
	I'm not in a relationship.
	I'm in a relationship, but we don't live together.
	Other:
	Other:

18.	How many adults live in your household? [required]
	O 1
	O 2
	Other:
19.	How many people under the age of 18 live in your household? [required]
	\bigcirc 0
	O 1
	O 2
	Other:
20.	What is the total annual income of your household before deducting taxes?
	less than 15 000 euros
	15 000 - 30 000 euros
	O 30 001 - 45 000 euros
	O 45 001 - 60 000 euros
	O 60 001 - 75 000 euros
	75 001 - 90 000 euros
	90 001 - 105 000 euros
	105 001 - 130 000 euros
	130 001 - 145 000 euros
	O over 145 000 euros
21.	Do you have any comments related to this section "Background Information"?
- ' -	Please share your thoughts. Feel free to comment on the questions, answer options, or your own
	answers, for example.

Inclusion

Inclusion is usually understood as a feeling that arises when a person is included in a community through study, work, hobbies, or organizational activities, for example. Inclusion appears as people's appreciation, equality, and trust, as well as the possibility to influence things.

Being included in society means everyone has access to health, education, work, livelihood, housing, and social relationships. From a democracy perspective, inclusion means that citizens have the right to participate and influence matters concerning themselves and the development of society as equals.

Also participating in hobbies, consuming culture, civilizing oneself, and experiencing trust and security can create a sense of inclusion. The degree of person's inclusion and societal activity varies according to the course and situations of life. (Source: Adapted from Wikipedia)

22. What is your opinion of the following statements? [required]

Please mark for each statement the alternative that best describes your experience.

	completely disagree	somewhat disagree	neither agree nor disagree	somewhat agree	completely agree
I feel that what I do every day is significant	0	0	0	0	0
I get positive feedback on what I do	0	0	0	0	0
I belong to a group or community that is important to me	0	0	0	0	0
Other people need me	0	0	0	0	0
I can influence the course of my life	0	0	0	0	0
I feel my life has a meaning	\circ	\circ	\circ	\circ	0
I can strive for things that are important to me	0	0	0	0	0
I receive help myself when I really need it	0	0	0	0	0
I feel trusted	0	0	0	0	0
I can influence some things in my living environment	0	0	0	0	0

23. How included in the Finnish society do you feel from the following perspectives? [required]

	completely outside	somewhat outside	neither included nor outside	somewhat included	completely included
digital inclusion	0	0	0	0	0
hobby and exercise possibilities	0	0	0	0	0
education	0	0	0	0	0
belonging to different social networks	0	0	0	0	0
possibilities to participate and influence	0	0	0	0	0
social and health services	\circ	\circ	\circ	\circ	0
financial livelihood	0	0	0	0	0
working life	\circ	\circ	\circ	\circ	0
society as a whole	0	0	0	0	0

	completely insufficiently	somewhat insufficientl	suffic pa	artly ciently, artly ficiently	somewhat sufficiently	completely sufficiently
hobby and exercise possibilities	0	0	(0	0	0
means of citizen influence and participation	0	0	(0	0	0
corona information	0	0	(0	0	0
participation in education	0	0	(0	\circ	0
cultural offer	0	0	(0	0	0
fact-based information	0	0	(0	0	0
participation in working life	0	0	(0	0	0
news content	\bigcirc	\circ	(0	\bigcirc	\circ
How much do you feel [required]	the following	factors limit yo doesn't limit at all	ur use of a little	digital devi		ices? very much
inadequate design an implementation	d/or	0	0	0	0	0
your digital skills		\bigcirc	\bigcirc	0	\bigcirc	\circ
your disability (type ar	nd severity)	0	0	0	0	0
your financial situation	١	0	0	0	0	0
If you feel that the leve limit your use of digital this evokes in you.		•	-		-	

24. In the Finnish society, how sufficiently there are following things available to you in general,

meaning (digitally) accessibly and (physically) barrier-freely from your point of view? [required]

27.	Do you identify other factors that limit your use of digital devices and services? Tell what these possible other factors are and how they affect.					
28.	Would you like to use digital devices or services more? [required]					
	No, I use them appropriately.No, I use them too much.					
	Yes, I'd like to use them more.					
29.	If you answered that you would like to use digital devices or services more, which devices and/or services specially would you like to use more and why?					
30.	Do you feel that digitalization has made your life easier? [required]					
	O No - on the contrary - I feel it has made my life more difficult.					
	O No, but I don't feel it has made my life more difficult either.					
	Yes, I feel digitalization has made my life easier.					
31.	Do you feel that digitalization has increased your experience of inclusion? [required]					
	O No - on the contrary - I feel it has reduced my experience of inclusion.					
	O No, but I don't feel it has reduced my experience of inclusion either.					
	Yes, I feel that digitalization has increased my experience of inclusion.					
32.	How do you feel the corona epidemic has affected your life in terms of using digital devices and services?					
	You can consider for example the following: has the usage increased in your case, has there been enough accessible services or content available to you in relation to your needs, and what negative and/or positive effects the epidemic has had.					
33.	Do you have any comments related to this section "Inclusion"? Please share your thoughts. Feel free to comment on the questions, answer options, or your own					
	answers, for example.					

Accessibility

Accessible digital service or content means that different kinds of people are able to use it as easily as possible regardless of their disabilities, limitations, or other characteristics, and regardless of, for example, the aids they use. You can consider accessibility specifically from your perspective in the questions.

In Finland, the Act on the Provision of Digital Services deals with the accessibility of digital services and seeks to improve everyone's possibilities to use these services equally. Digital services refer to both websites used with an Internet browser and separately installed mobile applications used on a smartphone or tablet. The act applies to Finnish public bodies, such as authorities, as well as, among others, operators in the banking sector, insurance operators, and some providers of water, energy, transport, and postal services. All these actors covered by the Act on the Provision of Digital Services are called public actors in the questions.

34.	Have you encountered accessibility problems in public actors' digital services? [required]
	O no
	O yes
35.	How would you rate the average level of accessibility in public actors' digital services? [required]
	O very bad
	quite bad
	neither good nor bad
	quite good
	O very good
	Other:
36.	If you have encountered accessibility problems in public actors' digital services, what have the
	problems been like? In which actors' services have you particularly encountered these problems? Was it a website (used with an Internet browser) or a mobile application (installed separately)?
	vide it a website (asset with an internet browser) of a mobile application (installed separately).
37.	Which public actors' digital services are successful in terms of accessibility? Is it their website or
	mobile application?

38.	Have you given feedback to public actors about accessibility problems in their digital services? [required]
	No, I haven't, and I didn't know about my right to give accessibility feedback.
	No, I haven't, but I knew about my right to give accessibility feedback.
	Yes, I have given accessibility feedback to public actors.
39.	Have you made a request for clarification or complaint about a public actor's non-accessible digital service or other accessibility-related issue to the supervisory authority? [required] The authority supervising the Act on the Provision of Digital Services in Finland is the Regional State Administrative Agency for Southern Finland (AVI).
	No, I haven't, and I didn't know about my right to make a request for clarification or an accessibility complaint to AVI.
	No, I haven't, but I knew about my right to make a request for clarification or an accessibility complaint to AVI.
	Yes, I have made a request for clarification or an accessibility complaint to AVI.
40.	Have you encountered accessibility problems in private or commercial actors' digital services? [required]
	O no
	O yes
41.	How would you rate the average level of accessibility in private or commercial actors' digital services? [required]
	O very bad
	O quite bad
	oneither good nor bad
	quite good
	O very good
	Other:
42.	If you have encountered accessibility problems in private or commercial actors' digital services, what have the problems been like? In which actors' services have you particularly encountered these problems? Was it a website or a mobile application?
43.	Which private or commercial actors' digital services are successful in terms of accessibility? Is it their website or mobile application?

44.	Plea	you have any comments related to this section "Accessibility"? ase share your thoughts. Feel free to comment on the questions, answer options, or your own wers, for example.
45.	to, to	It in the questionnaire is section "Assistive Products" and after that you can answer, if you want to the last section "Use of Digital Devices and Services". All responses are very valuable for a apprehensive research material and it is desirable that as many respondents as possible applete all sections of the questionnaire. However, if you wish, you have the option to go directly the final feedback. Do you want to continue answering or move to the final feedback?
	\circ	I'll continue answering in section "Assistive Products".
	O	I'll go straight to the final feedback. → Go to page 17!
As	sist	ive Products
40	\ A /I ·	
46.	info	ch of the following assistive products, programs, or functionalities do you use to enter/provide rmation with a computer, mobile phone, or tablet? ect all the options that apply to you.
		special mouse: mouth-controlled mouse
		special mouse: hand-controlled mouse (e.g., joystick, ball, or vertical mouse or trackpad)
		special mouse: a mouse attached to the head, hand, or foot
	$\overline{\sqcap}$	special keyboard: keyboard with a keyguard, keyboard used with one hand, or similar
	$\overline{\Box}$	special keyboard: braille keyboard
	П	separate, physical keyboard when using a mobile phone or tablet
		customized settings for mouse or other control device when using a computer (e.g., mouse pointer movement and alignment settings, button settings)
		converting self-produced text to speech with a speech synthesizer
		(own) gaze as input: controlling devices/applications with gaze
		(own) gaze as input: producing short texts with gaze (e.g., search engine search text)
		(own) gaze as input: producing longer texts with full sentences with gaze (e.g., messages, documents)
		control switches (e.g., blow or button switch)
		customized settings for keyboard when using a computer (e.g., "sticky keys" feature, filtering features for key repetition)
		(own) speech as input: controlling devices/applications with speech
		(own) speech as input: producing short texts with speech (e.g., search engine search text)
		(own) speech as input: producing longer texts with full sentences with speech (e.g., messages documents)
		on-screen keyboard when using a computer (virtual keyboard replacing a physical keyboard)
		functionality to support text production (e.g., predictive text input, automatic error correction)

47.	Which of the following assistive products, programs, or functionalities do you use to receive information with a computer, mobile phone, or tablet? Select all the options that apply to you.
	inductive neck loop
	contrast or coloring properties
	converting printed text to electronic format (using a scanner/camera and text recognition program)
	braille display
	braille printer
	converting (others') speech to text with a speech recognition application
	screen reader program + braille display
	screen reader program + speech synthesizer (text to speech)
	magnification features or programs without screen reading
	magnification features or programs in combination with a screen reader and speech synthesizer
	subtitles for videos or programs in the video's language (if subtitles are available or can be created automatically)
	video call as an assistive function to see lips and/or facial expressions
48.	Do you have assistive products related to the use of digital devices or services as vocational or medical rehabilitation provided by Kela, the hospital district, or other similar body? Ono yes I don't know
49.	If you have assistive products related to the use of digital devices or services as vocational or medical rehabilitation, what are these assistive products? Have you encountered problems in how they function, for example, together with other devices and programs? And have you encountered problems related to assistive products and getting them granted, renewed, repaired, or something else? Tell about your experiences.
50.	Do you use other assistive products, programs, or functionalities related to the use of digital devices or services? What are those?

51.	would ease your use of digital devices or services? What are those and how do you think they would help you?
52.	When using digital devices or services, do you encounter problem situations that would require physical, assistive products or digital, assistive programs or functionalities to overcome or to be made easier? What kind of problem situations are these? What do you do if you encounter a problem situation? Do you abort the activity, ask for help from others, or have you invented a substitute way or trick for it yourself, for example?
	Tell about the problems you encounter and how you act in such situations.
53.	Do you have any comments related to this section "Assistive Products"? Please share your thoughts. Feel free to comment on the questions, answer options, or your own answers, for example.
54.	Next there is the last section "Use of Digital Devices and Services". To achieve a comprehensive research material, it is desirable that as many respondents as possible complete all sections of the questionnaire. However, if you wish, you have the option to go directly to the final feedback. Do you want to continue answering in the last section or move to the final feedback? ☐ I'll continue answering in section "Use of Digital Devices and Services". ☐ I'll go straight to the final feedback. → Go to page 17!

Use of Digital Devices and Services

55.	How would you rate your digital skills, in other words your ability to use digital devices and services generally? [required]
	Non-existent digital skills - I can't use digital devices and services at all or almost at all. I need others' (skill-related) help in everything or almost everything.
	O Beginner's digital skills - I can do some things. I need others' (skill-related) help in quite many things.
	 Basic digital skills - I can do basic things like search for information on the Internet and use e-mail and basic transaction services (e.g., authorities' digital services, online banking services). I need others' (skill-related) help in things that are even a little harder and rarer.
	Good digital skills - I can use digital devices and services fluently. I need others' (skill-related) help in quite few things.
	 Excellent digital skills - I can use digital devices and services very fluently. I need others' (skill-related) help almost never.
56.	How do you feel about technology in general? In this context, technology refers particularly to digital devices and services.
	i'm not interested in technology at all.
	I'm not very interested in technology.
	i'm not particularly interested in technology, but I'm not particularly against it either.
	i'm somewhat interested in technology.
	O I'm very interested in technology.
57.	Which of the following digital devices (or services) do you own or are otherwise constantly available for you to use?
	Select all the options that apply to you.
	☐ Internet connection on any device
	☐ Daisy player
	☐ laptop and/or desktop computer
	mobile phone: a touchscreen smartphone (mobile phone with Internet connection and various applications; a mobile phone for the consuming mass, so to speak)
	mobile phone: other smartphone (mobile phone with Internet connection and various applications; e.g., a Doro phone, phone for visually impaired users with physical keypad or similar; a so-called special smartphone)
	mobile phone: other mobile phone
	media player (e.g., Google Chromecast or Apple TV)
	game console (e.g., Sony PlayStation, Microsoft Xbox, or Nintendo Switch)
	tablet computer
	☐ virtual glasses
	smart TV (TV with Internet connection and various applications)

58.	How often do you use the following devices?	[required]

		l don't use at all	less than monthly	monthly	weekly	daily	several times a day
	computer	0	0	0	0	0	0
	mobile phone	0	0	0	0	0	0
	tablet computer	0	0	0	0	0	0
59.	voice/video co	rs that apply tation services onnection services: remeservices: review or similar (e.g. g with stocks g goods or segroups) cking timetable ting travel booking travel booking or instruction or instruction of the services (e.g., publicanking or instruction of the services	to you. s: participation ote reception ote reception ewing own head g., kanta.fi-ser funds, or oth rvices online existes online okings or ticked up services to olicserviceinfo urance service king (e.g., Fin e providers, o	n in physiother of a nurse or of of a nurse or of alth information rvice or similar er similar onlin (e.g., tori.fi-sen (e.g., any onlin et purchases of support mobil .fi-service, cor es that require nlab laboratori r similar)	rapy or other of doctor via chard doctor via voice and prescriptor) ne rvice, Faceboome store, tori.fit of the store, tori.fit of the sumer, finance authentication des, social and the store, social and the store authentication des, social and the store authentication descriptors.	rehabilitation te/video con otions, rene ok's second i-service, Fa	n remotely via nection wing hand groups) acebook's ance advisory
	using authorit OmaKela serv	•	•	'	, •	•	fi-service,

60.	Whi	ch of the following related to communication and participation do you use or do (digitally or
		ect all the options that apply to you.
		remote participation in lectures, meetings, webinars, or similar via digital platforms (e.g., Microsoft Teams, Zoom, or similar)
		remote interpreting service
		social interaction: using dating services (e.g., Tinder, E-kontakti)
		social interaction: using social media services (e.g., Facebook, Instagram, Twitter, LinkedIn, SnapChat)
		social interaction: video calls
		social interaction: messages with texts and/or pictures/emojis
		social interaction: video messages
		social interaction: voice messages
		social interaction: voice calls
		receiving and sending email
		text call service
61.		ch of the following related to software, functions, and doing yourself do you use or do (digitally nline)?
	Sele	ect all the options that apply to you.
		installing and commissioning new systems, programs, or applications
		updating systems, programs, or applications
		using programming tools
		using digital learning and study services
		changing a password or requesting a new password
		producing content for the Internet
		using so-called office tools (e.g., Microsoft Office tools Word, Excel, PowerPoint, or similar)
		shooting, archiving, using, or light editing (e.g., crop) of photos or videos
		more advanced editing and/or combining of photos or videos

62.	Whi	ch of the following related to entertainment and culture do you use or do (digitally or online)?
	Sele	ect all the options that apply to you.
		watching movies or programs via digital platforms (e.g., Yle Areena, Ruutu, C More, Elisa Viihde, Netflix, Sign Language eLibrary of Finland)
		culture: using library's digital services
		culture: watching/listening to concerts or other performances
		culture: virtual museum or art exhibition visits
		listening to music via digital platforms (e.g., Spotify, Apple Music, YouTube)
		listening to music from a physical memory device (e.g., CD, memory card, or memory stick)
		gaming: money games, in other words casino, poker, or betting games where real money is used
		gaming: online games played together, with or against others via Internet connection (excluding money games)
		gaming: online games played alone (excluding money games)
		gaming: games played alone or together with those in the same space, e.g., console games
		listening to radio or podcasts via digital platforms (e.g., Yle Areena, Supla)
		reading newspapers or other media digitally
		searching for information and browsing the Internet
		following sporting events
		watching videos or live streaming broadcasts via digital platforms (e.g., YouTube, Twitch, Facebook)
		listening to audiobooks or magazines via digital platforms (e.g., BookBeat, Storytel, Nextory, Elisa Kirja, Luetus listening service, Celia audiobook service)
		listening to audiobooks or magazines from a physical memory device (e.g., an audiobook on a CD, memory card, or memory stick)
63.	Do	you have any comments related to this section "Use of Digital Devices and Services"?
		ase share your thoughts. Feel free to comment on the questions, answer options, or your own wers, for example.

Final Feedback

04.	"Disabled persons' digital and technological inclusion in the Finnish society"? Please share your thoughts around the questionnaire's topic.
65.	Can you think of anything else you'd like to comment on?
	Please share your thoughts. In this last point, you can tell anything at all considering the questionnaire itself, for example.

Thank you for your answers!

You can send the questionnaire by mail to the address given by the person conducting the research.

Information about the study

Name: Disabled persons' digital and technological inclusion in the Finnish society:

Subjective experiences

Researcher: Postdoctoral researcher, Ph.D., Tuuli Keskinen; tuuli.keskinen@tuni.fi

Faculty of Information Technology and Communication Sciences,

Tampere University, Finland

Financier: Jenny and Antti Wihuri Foundation

Time: 01/2021–12/2022