

# ACCESSIBILITY, INCLUSION AND PARTICIPATION –

Digital inclusion and non-discrimination as the goals of  
the Culture and Leisure Division of the City of Helsinki

DEMOS  
HELSINKI/





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Technology is  
neither good nor bad;  
nor is it neutral.

– **Melvin Kranzberg,**  
**historian of technology,**  
**1986**

“

Above all,  
Helsinki is a place  
and community.  
People of Helsinki  
make Helsinki themselves.

– **Jan Vapaavuori,**  
**the mayor of Helsinki,**  
**2017**

“

The digital revolution  
must serve the many  
and not just the few.

– **Francesca Bria,**  
**the chief technology and digital innovation**  
**officer for the City of Barcelona,**  
**2015**

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# How this report was conducted

The Culture and Leisure Division of the City of Helsinki wanted to investigate the problems relating to non-discrimination policy and the inclusion of digital services and to outline possible solutions. During the spring and fall 2019, Demos Helsinki interviewed fourteen experts from various organizations and from the Helsinki City Organization, as well as five people who belong to different digital service user groups. During the process, two workshops were organized together with roughly twenty experts from the City of Helsinki and various organizations. Some of them were service planners and experts who are familiar with the needs of various special groups. They are mentioned at the end of this report. Organizations' publications, scientific articles, other cities' publications about the theme, recent media material, and the Culture and Leisure Division's Digitalization Program provided background material for this report.

# Introduction

**T**he introduction of digital technology has transformed every sector of society. Digitalization is a systemic dynamic that affects the whole of society. It is a phenomenon and turning point that changes services, structures, values, value creation, and behavior.

Digitalization is often mistakenly crystallized as digital services. However, the core idea behind digitalization is the growth of available data and its utilization, which means opportunities for new approaches.

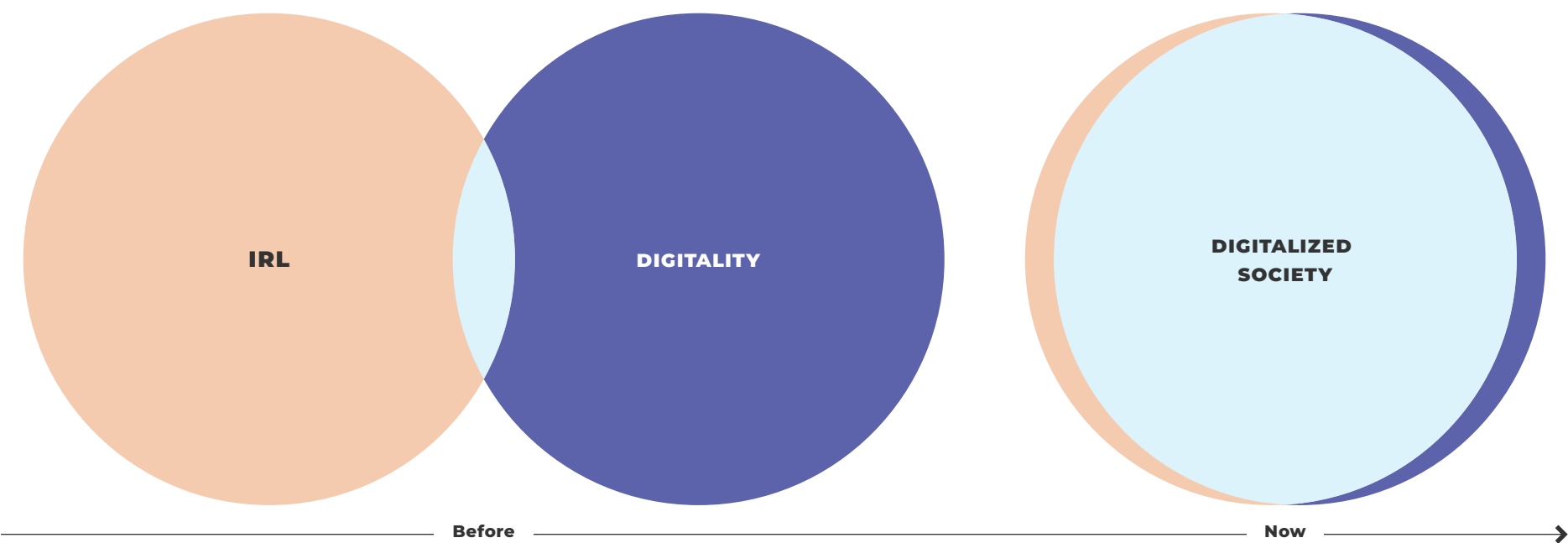
Digitalization also changes the expectations towards public services. Nowadays, people have to handle many digital tasks that used to be a service provider's or an authority's responsibility. People who are used to digital services also

expect digitality from public services. For people who use the Internet, it is considerably easier to use them. Time and geographical location are no longer barriers like they used to be.

For many people, digitalization has brought increased freedom and opportunities, but it can also change the mechanisms of discrimination and inequality and reinforce experiences of deprivation. This publication's main message is that digital inclusion is wider than accessibility. Digital inclusion is ensuring that everyone has the opportunity to live a good life in an increasingly digital society. Digitalization must include – and not exclude – new groups and individuals. This report is valuable for those who plan and maintain digital services or are interested in understanding their societal impact. ●



# Change from the 1990s



We use digital equipment in work, social interaction, and official contexts. As a result of mobile technology, among other things, there is no longer an in-real-life (IRL) – in Internet slang – mode separate from the digital.

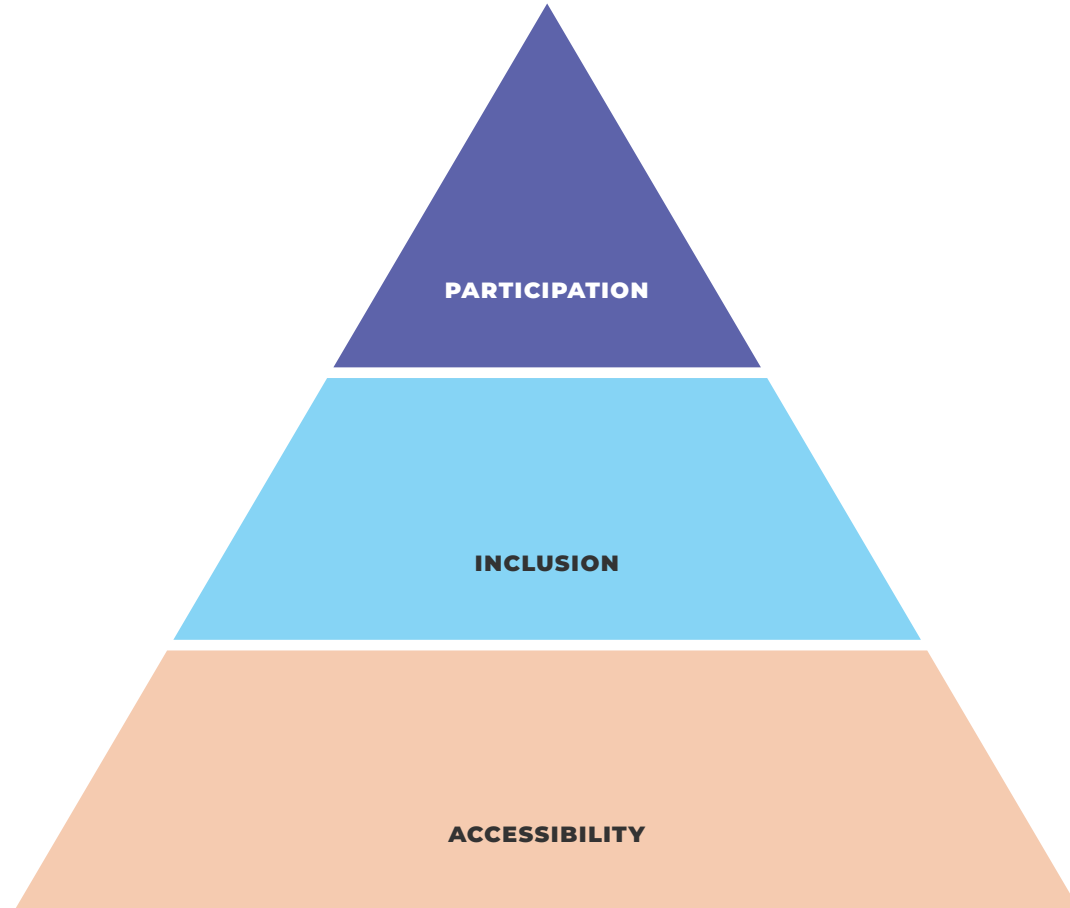
# Accessibility, inclusion, and involvement – back- ground and definition

Who feels welcomed and considered? Who feels they can have an influence on their city? These questions of inclusion and involvement are not new in society, but they are at a turning point. Along with digitalization, the questions must be examined with special care, and their answers are in a constant change.



# Stages of participation

Accessibility can be considered the minimum level of service development and the guiding principle that creates the foundation both for inclusion and participation. Inclusion requires empathy and comprehensive evaluation of user groups' needs. It must be ensured that needs are taken into account. Services and channels that function well for all guarantee that everyone can experience participation and, if they wish to do so, act for their city. The higher one goes in the pyramid, the more value judgements one has to make.



### FROM EQUALITY TO NON-DISCRIMINATION

Merely providing the same service equally to all potential users is not non-discriminatory. In an extreme case, it makes it more difficult for some individuals and groups to act and participate, if they have limitations or needs that have not been considered in the planning. In practice, this means that the origin, age, ability to function, sexual orientation, religious, or other reasons for discrimination prohibited in the Non-Discrimination Act require the service provider's attention, demographic knowledge, and action.

### FROM ACCESSIBILITY TO INCLUSION AND PARTICIPATION

An **accessible** service is a service that everyone can equally use regardless of their disabilities and functional limitations, without help from other people. Accessibility, in its simplest form, means user-friendly online services, and it is an essential part of the digitalization of public services. Accessibility promotes non-discrimination. (The Finnish Association on Intellectual and Developmental Disabilities, 2019)

Accessibility is a way to plan services, not just a technical operation. If accessibility is not



Inclusion is also  
a matter of values:  
what is developed  
and what not.

**Workshop participant**

considered, then many people will be excluded from services. Functional limitations that cause a person to need accessibility can be related, for example, to hearing or visual defects and impairments or motor difficulties and dyslexia. Various forms of cognitive dysfunction came up in the expert interviews conducted for this report. For example, if too many elements are moving at the same time, a website can be too complicated for a person with a memory disorder to use.

Since August 2019, new public websites in the EU must comply with the EU directive and meet certain accessibility requirements. Accessibility can be evaluated using the Web Content Accessibility Guidelines (WCAG). Its four basic principles are that content must be perceivable, operable, understandable, and robust. Each principle comprises guidelines and criteria that an online service must meet to be accessible.

Accessibility also means the attitude and mindset of taking people's diversity into consideration (i.e., social accessibility). Social accessibility (The Association for Culture on Equal Terms, 2019) includes equal customer service and openness. Everyone must feel welcome as they are. In the context of digital services, ➤

➤ social accessibility can mean, for example, language-aware use of language and imagery that takes people's diversity into consideration and does not reinforce stereotypes. In addition to technical accessibility issues, the creation of digital services is related to images. For example, people with various functional limitations must be constantly visible in the imagery, and not just in the context of ability diversity.

**Inclusion** is generally used to describe the change of discriminatory structures to structures that support non-discrimination. Providing the same service in the same way for everyone is not enough – action is required to include all people. Inclusion is acts that support non-discrimination and a culture that supports diversity; the aim is to include people regardless of their background. Inclusion can also be described as actual access: is a group or person really participating, even if they are not in some way barred access? Digitalization can improve social inclusion; that is, it can dismantle discriminatory structures. New individuals and groups can obtain better services, as well as new experiences and resources.

According to the definition of the U.S. Institute of Museum and Library Services, **digital**

**inclusion** is the ability of individuals and groups to access and use information and communications technologies. A person or group is involved in the digital world if they have access to the Internet, required devices, contents, services, and software, as well as the digital literacy that is required to use them.

In the context of digital inclusion and, more widely, social inclusion, it must be remembered that many people, for whatever reason, never start using digital services and devices. They will not benefit even if accessibility is taken into consideration in planning. Accessible and inclusive services may make them more attractive for people, but not everyone will start using them. To serve these people well, printed materials, telephone services, and face-to-face meetings must be available – at least for a long time to come. Public services have a stronger obligation to offer these forms of accessibility than private services. Culture and leisure services are essential for people's quality of life, and these services are paid from the common funds for common good. Even though people without digital skills are not banned from the services, the effect is the same.

In the context of exclusion and inclusion, ➤



Accessibility  
is a technical-physical term,  
whereas inclusion  
is inviting.

**Workshop participant**



Accessibility is what that EU directive does to make sure that people from diverse backgrounds have access to services. Inclusion is a kind of social accessibility – and digital skills are certainly connected to it.

**Workshop participant**

› assimilation is often mentioned. **Assimilation** usually describes the process in which individuals are changed and included in the existing structure. For certain population groups, the word may carry a negative connotation, as assimilation has meant, for example, the prohibition of some people's native languages. However, promoting digital capabilities and including more people in digital development is not a bad thing for an individual or group – at least if the adoption of digital skills includes discussion about information security issues and other risks related to using the Internet. It must primarily be an opportunity, not a compulsion. In connection with digitalization, assimilation becomes a risk if digital exclusion is only seen as a matter that concerns individuals. Structures can be modified to include everyone.

#### **PARTICIPATION AS THE GOAL**

According to the definition of the Finnish Institute of Health and Welfare (2019), participation is typically understood as a feeling that emerges when a person is involved in a community through, for example, studies, work, leisure, or organizational activities. In communities, ›

➤ participation is respect for members, equality, trust, and the possibility of having an impact in the community. In a society, participation means that everyone has opportunity for health, education, work, livelihood, housing, and social relations. At a national level participation can be thought of as a foundational part of democracy. A citizen has a right, if they wish to do so, to participate as an equal and influence decisions concerning themselves and society's development. As summarized by one of the workshop participants: "Participation is an active matter. You are not just receiving, but you can also give."

Taking accessibility into consideration in the planning of services creates a foundation for inclusion (i.e., including or participating). Without inclusion, many people cannot feel involved in the city and help make it flourish. A city resident's participation is both a right and benefit to the city, and digital equipment provides new tools for it. ●

“

Accessibility is technical,  
participation is the  
feeling that follows.  
Inclusion is going into  
contents,  
it is welcoming,  
and it is about whether  
there are all kinds  
of people. It is the more  
comprehensive side.

**Workshop participant**

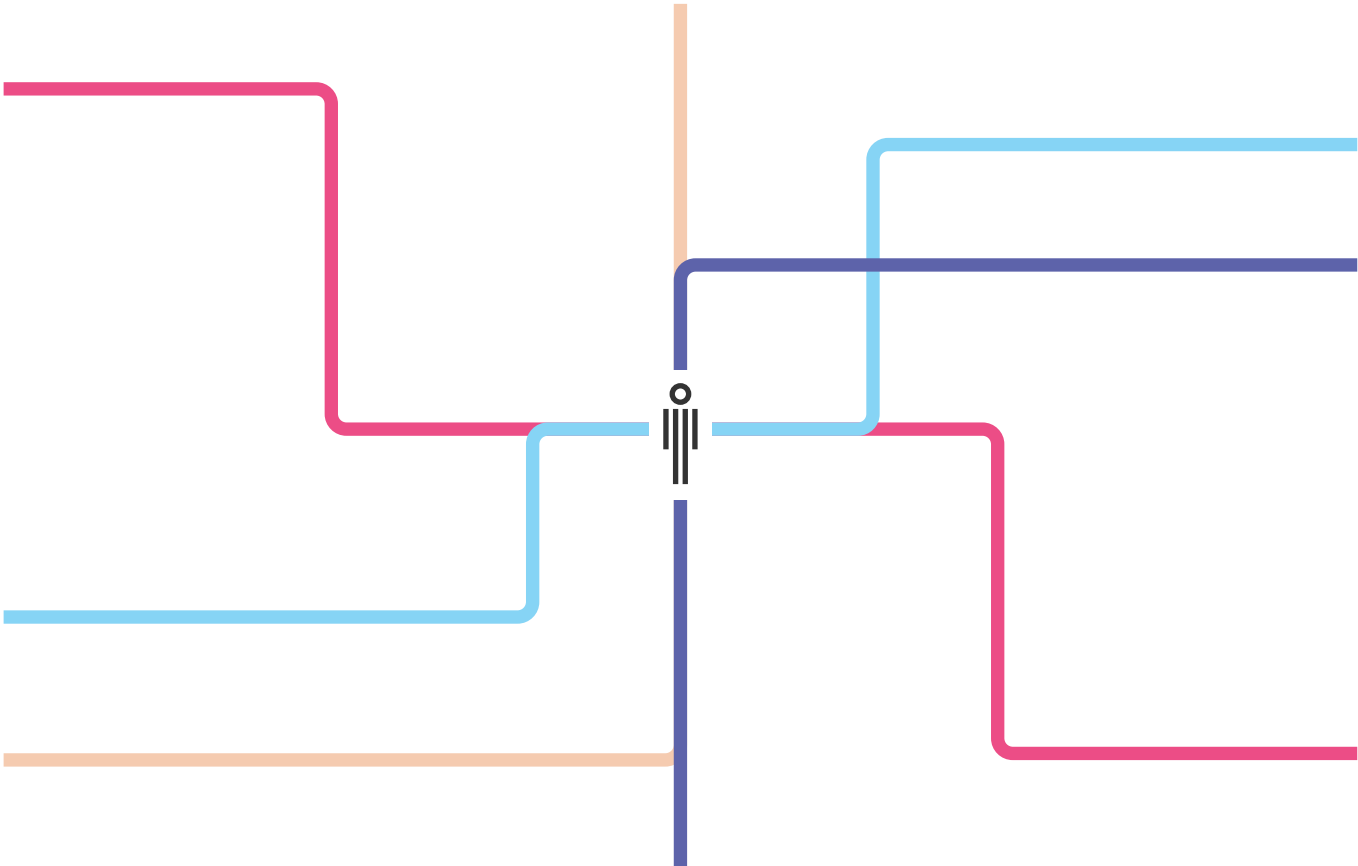


# Divides and intersecting factors as threats to digital inclusion

The social challenge of digital development is that even though for many groups, it gives an exceptional access to information and services, it can deepen the already existing divides between people and create new divides that are difficult to recognize. Various discriminating structures work at the same time. People's needs and the diversity of their features must be considered in the creation of spaces, channels, and services that belong to all. How can one recognize risks without labeling?

# Intersecting factors

The risk of becoming digitally excluded increases if a person is exposed to many risk factors.





## DIVIDES IN SKILLS AND ACCESS TO DEVICES

The term *digital divide* describes a gap between two groups of people: those who have Internet access and those who do not. The phenomenon was already recognized in the 1980s as a problem linked to inequality.

Access to the internet or a device that enables it is still not universal for everyone. We also know that digitalization has, at least in part, already deepened the existing social and even global divides, even though this process is constantly changing. At the infrastructure level, the reason may be that sparsely populated areas do not have high-speed Internet connections. One expert interviewee brought up that in everyday life, the reason may be that grandparents receive behind-the-times mobile devices because people think that they do not need better ones.

When it comes to devices, one groundbreaking step for digitalization has been the popularity of smartphones. Smartphones are also used by people whose digital skills are otherwise weak or who are illiterate.

In addition to a device, internet access requires at least some kind of skills and understanding about the nature of the digital world.

In addition to technology's coverage and availability, one essential tension relates to the digital skills divide: compared to its predecessor (i.e., the digital divide introduced in the 1980s), the second order digital divide refers more strongly to digital skills and digital literacy.

Skills and competences can be evaluated, for example, with the European Commission's Digital Competence Framework 2.0, a reference



Young people are  
used to using  
different services.  
But when they have to go  
and do the 'real thing,'  
it can quickly become  
a problem.

**Workshop participant**

framework that lists digital skills. The reference framework's skills are information and data literacy, communication and collaboration, digital content creation, digital problem solving, and awareness of digital safety.

Safety not only protects one from password phishing; it also means understanding the economic logic behind the digital economy. One alarming feature of digital development is the accumulation of power and an individual's position in it. A person must have at least an initial understanding of this. Researcher Mark Andrejevic (2014) talks about a "big data divide" that refers to an asymmetric power relationship between people and big operators of the digital economy – between those who can produce large quantities of data and those whom data collection targets.

According to international studies, libraries have a special task (Salinas, 2003) in the crossing of digital divides – related to both devices and skills – and the prevention of digital marginalization.

## GROUPS AND INDIVIDUALS

Differences in using and adopting digital technology are greater between individuals than between groups. Assumptions about anyone's





› digital skills should not be made based on age, language background, or other features. The foundation of a service must always be an open attitude where people can define their needs and identities themselves. However, as the fundamental idea of non-discrimination is to provide solutions that better match the diversity of needs instead of offering the same selection, it is good



We have become more aware of young people. For a long time, we talked about digital natives, but young people are not Renaissance people, and their own interest may be quite narrow.

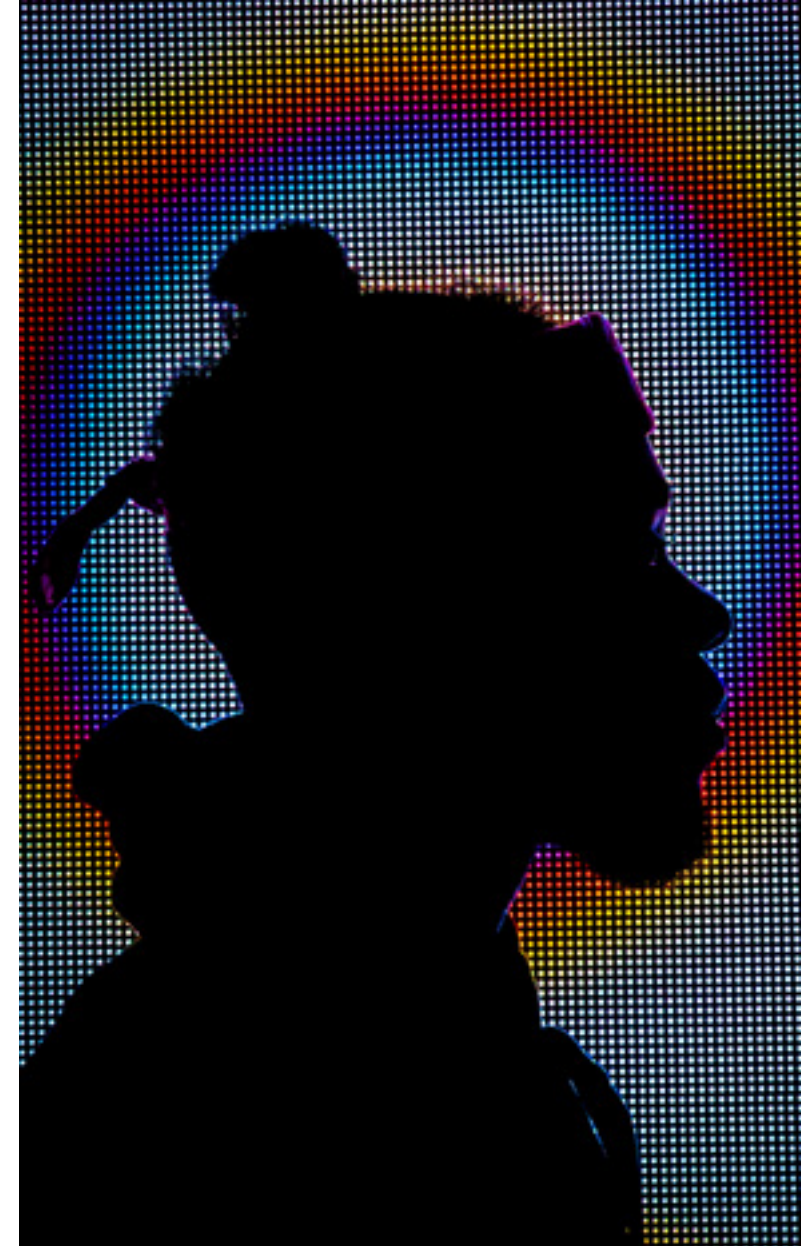
#### Expert interview

to recognize the factors that increase the risk of digital marginalization. This is especially true when these factors intersect with each other. In this context, marginalization means both total exclusion from digital services and their very narrow usage because a person does not have access to devices or abilities to use them. Below is a list of factors that emerged during the making of this report.

#### DIGITAL MARGINALIZATION FACTORS:

- Poor reading and writing skills
- Poor language skills
- Low education level
- Age
- Poverty
- Lack of support from relatives and friends
- Gender
- Limitations of functional ability
- Memory disorder
- Caring responsibility
- Psychological load
- Lack of motivation

In addition to these, the exclusion from the digital world may be partly caused by more indi- ›



➤ vidual reasons, such as a prison background or religious and cultural factors. Diversity comes up in the list, but it also indicates that we all may someday be in a vulnerable position as the users of digital services and tools. For example, a sleep-deprived or otherwise stressed person cannot navigate a difficult website.

Digitalization diversifies, fragments, and increases the number of groups with various needs. This a development that is not going to stop. Adapting to new technologies will always be difficult for some people, even if they would have known how to use the previous iterations. The development of digital banking services has shown that high-income older people know how to search for and use services aimed at them, whereas low-educated older people with low income do not usually know what kinds of services are available for them. (Beurling, 2016)

Most people want to learn. In the right company, even the weakest skills can be improved and it is possible to learn. Because digital skills are often connected to strong identification in official contexts, it is important that ethics and responsibilities are thoroughly covered with the peer teachers and assistants.

## AGE AND TECHNOLOGY

The position of older people is often emphasized in the context of inclusion and technology. A large part of the older population has never used the Internet. It is likely that during the next couple of decades, there will be a considerable group of people who must be provided other than digital services.

When we talk about age, it is important to remember that one cannot judge an individual based on demography, and not everyone thinks it is a problem being an outsider from the digital world. One of the expert interviewees who works with older people said: “A typical user does not exist. There are those who are happily clueless: they have made the choice, and that’s how it should be. On the other hand, some of them are consummate users.”

The expert interviews have shown that the older population encounters motivation-related barriers, which means becoming actively passive (i.e., a person decides not to participate in the digital world). When we talk about motivation, we have to remember that digital inclusion is primarily structural and secondarily related to an individual’s motivation and skills. The lack of ➤



➤ motivation may be caused by many reasons, such as fear. Many older people are worried about information security issues, which is not entirely groundless. “I’m always afraid that my passwords go somewhere. A couple of years ago I had an incident with the Viagogo website, and I lost two hundred euros,” one of the interviewees said.

Practical work has shown that learning digital skills is a sensitive issue because being unskillful causes a feeling of being left out. One of the expert interviewees said that older people who do not have digital skills “feel they are not part of the society, they are worried and feel they are not enough, and they would like to take care of their own things.” This quote articulates how comprehensive digitalization is as a change from what existed before. An expert who works with older people has noticed that a relative is not always the best helper, because teaching situations cause unnecessary friction in families. People who support their relatives and use devices on behalf of older people may be in a difficult situation.

Some older people have physical function limitations that cannot be fixed. Sometimes the bottlenecks are surprising: an older person’s fingers may be so hard that fingerprint identification



What if  
experts-by-experience  
would come  
and tell what we should  
take into consideration?

**Workshop participant**

– which is handy in itself – is technically impossible. A lack of money and user support are also major barriers for many older people, who otherwise would be interested and eager to start using digital devices. However, many digital devices improve older people’s inclusion in the access to services. This also applies to cultural experiences. For example, older people’s home care has used remote devices that an older person can use for watching concerts. Older people do not even have to know how to put the device on.

What emerged strongly in the interviews is that not all young people are in an equal position or protected from digital marginalization. We do not know how well living “in the digital age” prepares us for future technology. The expert interviewees considered the term “digital natives” to be harmful, because the concept hides both the possible problems that young people have regarding the use of digital services and the challenges related to discriminatory structures. Young people mostly learn digital skills in their free time, and they use many applications that have similar logic. It is important for the service system to take this into consideration. Young people from various backgrounds have different starting ➤

➤ points for using digital devices and services, and many need help operating them in official contexts. What young people do on the Internet varies greatly. The experts stated that those young people whose families have helped them to use e-mail, for example, are in a better position when applying for a job than those who have not received any help. However, it would be important to make sure that all young people have equal opportunities to deepen their digital skills so that they could manage in working life in the future and make use of possibilities as they wish, and so that there would be a diverse group developing technology in the future.

While it is true that young people's digital skills do not directly correspond, for example, to the requirements of working life or official contexts, young people may have – compared to older people – better skills on average to search additional information. Peer learning is common as one can ask friends for help. Young people often have a strong belief in their abilities, which may make it easier to learn new things: “At school, we learned basic Excel skills. If I had to use it, I would manage, at least with the help of videos,” an interviewee said.

### **SOME IMMIGRANTS ARE AT RISK OF DIGITAL MARGINALIZATION**

It is clear that the “immigrant” group includes extremely competent technology professionals who also have excellent support networks in Finland. However, some expert interviewees stated that critical exclusion problems may concern immigrants. For example, immigration-related bureaucracy requires access to a computer and a printer for forms. The content is not always familiar for those who have not lived in Finland, and the questions are difficult. Customers are in a vulnerable position, especially if many inter-



We talk about seniors a lot, but not much about immigrants. However, immigrant women are a vulnerable group.

**Expert interview**

secting factors concern them. Examples of such factors are a lack of language skills and support and a mentally overloading situation in life.

In addition to demographic groups and intersecting factors, a regional point of view may have an influence on inclusion issues at the city level. The City of Barcelona has collaborated with telecommunications operators on “social digital inclusion.” Their work has included workshops and library work on digital literacy (Ajuntament de Barcelona, n.d.). Vulnerable areas and groups were considered with special care in the planning of projects.

One expert who spoke about different functional limitations and accessibility summarized one essential tension of the inclusion discussion as follows: “It is important to know the groups, but the diagnosis is not significant.” What this means is that treating people as individuals, without assumptions, is as important for inclusion as being familiar with various needs. Addressing accessibility and making sure that as many people are included in digital services as possible benefits us all, because in different stages of our lives, we belong to different groups and divides in the developing digitalization. ●



# Conclusion

**T**he change at hand – digitalization – differs from the introduction of a single device, because it is a transformative social change. Great changes offer opportunities for ambitious action. The benefits for inclusion and participation must be considered in all digitalization processes.

The development of digitalization does not mean merely doing the same things but electronically – rather, it is about adopting the logic of digitality. Digitizing services and adopting new solutions can be an opportunity to improve users' digital skills and reduce digital marginalization instead of excluding groups, especially if the adoption of services has been socially planned and if the services are so useful that they motivate people. Everyone can benefit from digitalization if services serve all and support participation. When a service is digitized, it should accommodate new groups, not exclude them.

To be inclusive, digital services must seek to break down the barriers of language, culture,

mobility, literacy, and other dividers that prevent some from fully using technology. This requires commitment and action. In principle, services should be planned together with users and to meet users' needs. Limited resources require choices. Inclusion actions do not always have to involve everyone, but usually it is not advisable to leave any group out. However, it is important that decisions about the use of resources are made consciously and their impacts on inclusion are understood.

A large group of operators are building a digital society, and this work does not always pay attention to people who are in a vulnerable position because of digital skills, situation in life, ability to function, or other reasons. This is influenced by commercial thinking and low levels of diversity, for example, in the field of technology. However, it is possible to create an open and accessible digital society. Digitalization can increase equality, decrease marginalization, and offer people new opportunities to obtain information, earn their living, and acquire experiences.

Digitalization provides amazing opportunities for inclusion, participation, and non-discrimination, but nothing will happen without resources and determination. If we want inclusion to be a comprehensive course of action and digitalization to serve all instead of exacerbating marginalization, then we need both specific subject expertise and widely shared understanding.

The expert interviewees highlighted digital gaming as a great example of involving new groups. Through games, it has been possible to reach many young people who do not think youth work is their thing or who are not interested in youth clubs. A city must also be inclusive of those who are the most familiar with the logic of digitalization. One of the expert interviewees mentioned hackathons – which are often used in software development – as a city development tool. Their standardization as an operating model shows that many kinds of skills are respected in a city organization, and this can promote participation.

Finally, an important point to conclude



➤ on: the answers to digital questions are not always digital. Even if we build the best digital service in the world, it is not useful if users do not find it. The implementation of a new service includes many stages in which it is possible to influence the inclusivity of services, and development with users is one of the most important ones. One of the workshop participants summarized as follows: “What if, instead of occasional support, we provided something that would be learned permanently. If a service had some killer feature that would make it easy to become digital, and then we could expand from there?” ●



# Checklist

**Don't make assumptions!** One can't judge a person's digital skills from their background. During planning, remember to pay attention to different digital skills and the diversity of people in general.

**Everyone benefits from accessibility.** Anyone can end up in a situation in which accessibility is necessary.

**Language awareness and easy-to-read language are necessary for many people.** Ten percent of Finnish people need actual easy-to-read language (The Finnish Association on Intellectual and Developmental Disabilities, 2014). It is a language form whose content, vocabulary, and structure have been modified to be more readable and understandable than

standard language. The use of easy-to-read language is not always possible, but everyone benefits from clear language.

**Digitalization is a great opportunity for the inclusivity of different disability groups and other vulnerable groups.** Follow the development of voice control and AI solutions!

**Accessible but difficult is not inclusive.**

Developing together with users, user-friendliness, and the use of user information are also matters of inclusion.

**Digitalization must include new groups, not leave them out.** Not everyone will start using digital services, so other channels must be provided.

**Peer support.** In the learning of digital skills, peer support and guidance have been found functional. Consider how you can advance it.

**Work together with organizations and companies!** Prevention of digital marginalization requires many kinds of operators, and organizations have a great deal of valuable understanding of inclusion issues.

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# Further reading

**Design for All Foundation.**

[www.designforall.org](http://www.designforall.org)

**Koponen, J. et al. (2018). Demos Helsinki. Unbounded Government: Opportunities for Developing New Government Practices.**

<https://www.demoshelsinki.fi/en/julkaisut/unbounded-government-opportunities-for-developing-new-government-practices/>

**The website of Nielsen Norman Group, an expert company in user experience.**

[www.nngroup.com](http://www.nngroup.com)

**Information about the Web Accessibility Directive.**

<https://ec.europa.eu/digital-single-market/en/web-accessibility>

# Expert interviewees

Tiina Etelemäki, **Enter ry**

Pirkko Excell, **The City of Helsinki**

Tuula Hannonen, **The City of Helsinki**

Mailis Heiskanen, **The Alzheimer Society of Finland**

Heikki Lauha, **Verke**

Milla Lindborg and Jonna Adhikari, **Senior Info**

Jussi Kaisjoki, **The City of Helsinki**

Katja Jokiniemi, **The City of Helsinki**

Raisa Rintamäki, **Finnish Centre for Easy Language**

Pete Saarela, **The City of Helsinki**

Marianne Seppä, **Luksia**

Riitta Tervasmäki, **Sivis Study Centre**

Sari Vapaavuori, **The Technology for the Elderly Centre**

Sami Älli, **The Finnish Association on Intellectual and Developmental Disabilities**

# The City of Helsinki's measures related to inclusion

## **Helsingin kaupungin saavutettavuusopas:**

### **Saavutettava sisältö Opas suunnitteluun**

**ja sisällöntuotantoon** (The City of Helsinki accessibility handbook: Accessible content. A handbook for planning and content creation). The handbook's aim is to provide generally applicable guidelines about how to create content so that it would be as accessible as possible.

**Maaailman saavutettavin palvelukartta** (The most accessible service map in the world). In the test version, everything except the map itself is accessible.

**BlindSquire application.** A digital solution that will soon improve accessibility in the Helsinki Central Library Oodi.

**Readspeaker service.** The service reads the written text on web pages out loud.

### **Helsinginseutu.fi website in easy language.**

The website provides information about the services in the Greater Helsinki Area in easy-to-read language.

**Accessibility team.** The accessibility team was established in September 2019. The team provides support for those who create digital services in Helsinki so that they have good opportunities to make their services accessible by the deadline.



**DEMOS  
HELSINKI** /

DEMOS HELSINKI: ACCESSIBILITY, INCLUSION AND PARTICIPATION – DIGITAL INCLUSION AND  
NON-DISCRIMINATION AS THE GOALS OF THE CULTURE AND LEISURE DIVISION OF THE CITY OF HELSINKI