Digitally brave is confident about the future

Digital Skills Report 2022

DIGITAL AND POPULATION DATA SERVICES AGENCY

Table of contents

What is the Digital Skills Report and why is it needed?

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What is the current state of digital skills in Finland? How can Finns use their digital skills to benefit from the opportunities offered by digitalisation?

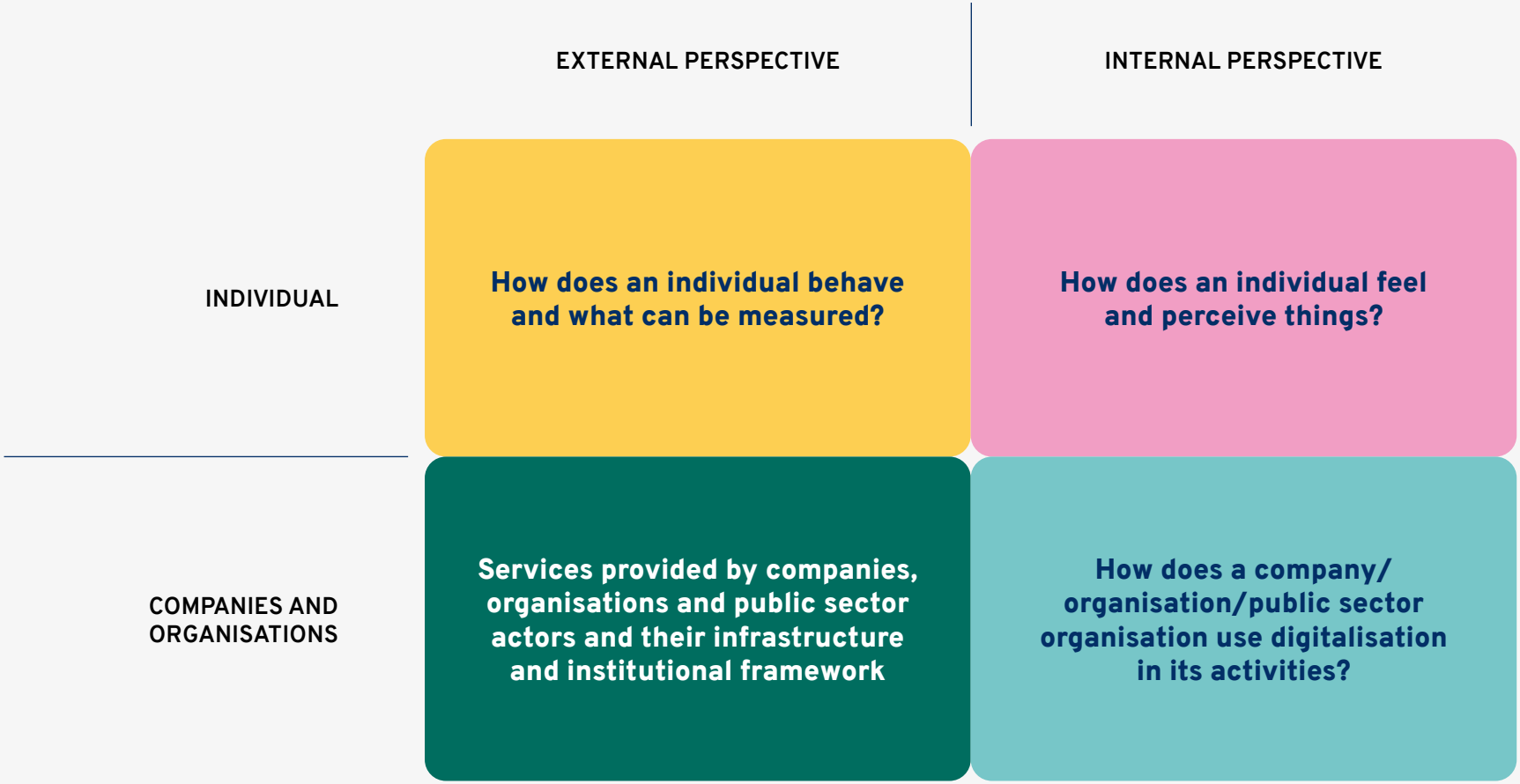
This Digital Skills Report, the first of its kind, was prompted by the observation that a more comprehensive understanding of digital competence and the requirement for digital support is needed. We need a comprehensive picture of digital competence that takes into account the need for digital skills among citizens arising from digitalisation and the manner in which this need is perceived. The Digital Skills Report has been prepared to monitor these dynamics. The report will be published annually.

Everyone must have the opportunity to use digital devices and services in their daily routines in the manner best suited for them. The digital environment is in a state of constant change and it challenges digital competence. To keep up with the change as individuals and as members of society, we must possess the ability to learn and enhance our digital skills. When we understand how this is perceived in everyday life, we can produce digital support that genuinely meets people's needs, now and in the future. Everybody has the right to shape their daily digital lives in accordance with their own needs and goals.

How does it feel to live in a society that is full of opportunities facilitating your daily life that can only be seized if you possess digital skills? What is needed to ensure that everybody is equally well placed to keep up with technological advances and enjoy the benefits of digitalisation in the way they want? These are the issues discussed in this Digital Skills Report.

Perspectives of the Digital Skills Report

The Digital Skills Report examines the issue from a wide range of different perspectives and it brings together different types of information. In this process, consideration is given to overall digitalisation in society and the way in which companies, other organisations and individuals experience digitalisation. The perspectives taken by individuals, companies and organisations are specified by making a distinction between external and internal perspective.



Basis for the Digital Skills Report

The Digital Skills Report is based on quantitative and qualitative research data. We combine numerical data (quantitative indicators) with qualitative data on topical digital competence phenomena (qualitative studies).

<table>
<tr><th>QUANTITATIVE RESEARCH</th><th>QUALITATIVE SURVEYS</th></tr>
<tr><td>Digital competence indicators
- 45 indicators</td><td>Digital motivation among Finns
- In-depth interviews (10) and online diaries (10)</td></tr>
<tr><td rowspan="2">13 sources:
- Digital and Population Data Services Agency: Digital Security Survey
- Self-assessment and quality tools of the Digital and Population Data Services Agency
- Customer experience and quality tools of the Digital and Population Data Services Agency
- E-Governance Academy: National Cyber Security Index
- European Commission: Digital Economy and Society Index (DESI)
- Eurostat: European Union survey on ICT usage in Enterprises
- Eurostat: European Union survey on ICT usage in Households and by Individuals
- IMD World Competitiveness Yearbook 2022
- SOSTE Finnish Federation for Social Affairs and Health: Organisation Barometer
- Finnish Institute for Health and Welfare: School Health Promotion Study
- Statistics Finland: Use of information and communications technology by individuals
- Tortoise-Media: Global AI Index
- Vitec Avoine Oy, TIEKE ry, Viestintä-Piritta Oy: Järjestödigi</td><td>Digital parenthood
- In-depth interviews and interviews with experts (8)</td></tr>
<tr><td>Digital skills of self-employed persons
- Case studies (4)</td></tr>
<tr><td>Digital and Population Data Services Agency: Digital Skills Survey
- Telephone survey 22 August – 2 September 2022
- N=1004
- Finns aged 18–79 (excl. Åland)
- The survey was conducted by Kantar TNS Oy</td><td>Social welfare and health care employers and developing employees’ digital competence
- Case studies (6)</td></tr>
<tr><td></td><td>More detailed descriptions of the studies used as the basis for the Digital Skills Report can be found at the end of this report.</td></tr>
</table>

Theme 2022:
Digital courage

Theme 2022: Digital courage

Digital courage is one of the key sectors of digital competence in the future. Digital courage means the readiness to try and introduce new or updated digital devices and services or become more skilled in using them.

Digital courage is needed because every time you encounter an updated service or an unfamiliar service, you need to be able to tolerate uncertainty. If your digital courage is at high level, you may not even notice that you have used a service that was new to you, at least not if the service is built in a user-friendly manner. If your digital courage has been dented or you have been unable to strengthen it, an increasingly digitalised environment may become a source of anxiety that is more and more difficult to avoid. Ultimately, digital courage means that you are prepared to accept the growing role of digitalisation in daily life.

Digital courage draws your attention to the experience-based aspects of digitalisation. How does it feel to live in a highly digitalised country like Finland in 2022 and be continuously prepared to start using new digital services and equipment? Our emotions affect our ability to adapt to change and learn new things. The pace of technological change is unlikely to slow down. In the future, gaps between citizens' digital skills will not only be determined by our digital competence but increasingly by our capability to learn new digital skills. The first of these capabilities is the readiness to try and experiment, to show digital courage.

Digital courage and digital hesitation are not mutually exclusive. Digital devices and services arouse different reactions in different people. They depend on your previous experiences, the nature of the matter, the situation concerned and the services themselves. Even if you possess digital courage, you may also experience fear, uncertainty or anxiety. Digital courage means that you can overcome these feelings so that you get the opportunity to try and learn new things. When you possess digital courage, you are aware of the threats involved but also of the ways to avoid them. Digital courage helps you to keep up with continuous technological change in situations when you have second thoughts.

PERCEPTION

Maybe the readiness to try new things is my strength.

“The first thing you should do is to get over your own prejudices, take a mobile phone in your hand and start using it. These devices do not cause any explosions or other terrible things even though that’s what you might think at first. I guess you gradually learn more about these things as you use them. You learn by doing. Maybe the courage to try new things is my strength. It must be because I have got over my own prejudices. Even though you feel that you are not good enough because you are a bit clumsy with these things. My answer is that I have skills that these digital natives do not have.”

A participant in the survey on digital motivation among Finns

Digital courage is important to digital experts at many levels because you must update your skills on a continuous basis. As technologies advance, digital services and devices also change. New services are created, while old familiar services are updated and new uses are found for them. Things that used to be done face to face are now done digitally, people important to you start communicating with each other in new digital channels, new systems are introduced at your workplace and official services are moved to digital channels.

When the digital environment is in a state of constant change, digital competence needs of individuals also change. According to statistics, Finns are among the most digitally skilled people in Europe: Some 79 per cent of all Finns already possess at least basic digital skills whereas the target for the year 2030 set out in the Digital Decade strategy of the EU is 80 per cent (The Digital Economy and Society Index (DESI), 2022). However, the need to learn new things does not end even if all Finns achieved a specific skills level. As technologies are constantly changing, it is not enough to focus on citizens' digital skills at any given moment. In addition to managing specific skills, we also need the ability to embrace new technologies and apply our skills to new situations. In fact, we can only maintain our digital competence if we are prepared to learn new skills and embrace new services.

Being worried about keeping up with technological advances is not limited to individuals with the weakest digital skills. In fact, individuals boasting excellent digital skills may also feel uneasy about using services new to them. Using digital services may be especially nerve-racking when the matter you are dealing with is of utmost importance. Even if your own skills were at reasonable levels, you may still be struggling to keep up with changes in services. You may be justifiably worried about your own capabilities amid the changing digital environment when you are ageing and when you are gradually losing your enthusiasm about new technologies.

Digital skills requirements in working life are also changing rapidly. The digital skills needed in working life are usually learned at work. Even if you were highly skilled in digital matters in your leisure time, moving into working life may be difficult if you are unfamiliar with the basic software used at the workplace. Even software considered as basic knowledge may change rapidly. The changes in remote working habits experienced during the COVID-19 epidemic are perhaps an extreme example of the rapid transformation of working life. If you had been absent from working life for the period 2020–2021, you may have needed a great deal of digital courage to adjust to the new remote working practices.

> *We can only maintain our digital competence if we are prepared to learn new skills and embrace new services.*

Two theses on digital courage

Thesis 1: Learning digital skills in the everyday context is the key

Thesis 2: Lack of digital skills does not arise in a vacuum

Thesis 1: Learning digital skills in the everyday context is the key

The list of digital skills is not carved in stone. It is a changing package of skills that we are continuously enhancing as part of our daily routines and as we encounter new digital phenomena, services or devices. Everyday life and making it better are the key incentives for learning new skills. As digital learning mostly takes place in the everyday context by trying and doing, keeping up with technological advances requires a great deal of digital courage. What is the state of digital courage in the Finnish everyday context?

Learning by trying is everyday digital courage

Ordinary people show digital courage when they are prepared to explore, try and learn how to use new or changed digital services or devices even if they are entering unfamiliar territory or success is not guaranteed. Digital courage requires a certain degree of understanding of how digital devices may work but not necessarily any specific skills. However, a small dose of digital courage is essential for acquiring skills. Digital courage arises from the realisation that there is nothing mystical about digitalisation. An individual with a high level of digital courage understands that the purpose of digital devices is to help us to achieve our goals and not to be our masters.

> *Digital courage means the determination to keep up with technological advances despite all the challenges.*

MORE MEANINGFUL EVERYDAY LIFE MOTIVATES INDIVIDUALS TO LEARN DIGITAL SKILLS

People are prepared to familiarise themselves with new digital devices and to use them when the equipment makes their daily lives easier. A certain group of people (37%) is basically interested in digital phenomena as such and wants to learn more about them but most Finns (53%) want to learn new digital skills because of the benefits they bring. The benefits are particularly important to those individuals who need support in learning new digital skills. (Digital Skills Survey of the Digital and Population Data Services Agency 2022)

ASSESSING THE MEANINGFULNESS OF DIGITAL TECHNOLOGY IS AN ESSENTIAL DIGITAL SKILL

The volume of the digital services and tools on offer is much higher than what anyone needs or even could use. Making choices between them is inevitable. Which ones will I give the time of day to prove their usefulness for me? A critical attitude towards the opportunities offered by digital tools is not an indication of change resistance but an essential skill required in a digitalised society.

> *An individual with a high level of digital courage understands that the purpose of digital devices is to help us to achieve our goals and not to be our masters.*

MEANINGFULNESS IS HIGHLIGHTED WHEN USING DIGITAL DEVICES IS NOT YOUR OWN CHOICE

Other parties, such as employers or the authorities, often choose on other people's behalf the tools or services they must use. Even when the choice is not their own, people are motivated to use digital tools if they can see the benefits clearly and immediately. Digital courage is particularly important in situations where using a specific digital tool is not one's own choice. This is especially true for thoes who are unsure about their digital skills. Determination and courage are needed to take the leap and start using digital services anyway. For individuals with weak digital skills, keeping up with the demands of a digitalised society is a matter of heroic persistence. They are repeatedly required to exceed themselves, despite uncertainty and fragile belief in their own skills. The determination to keep up with technological advances despite all the challenges is one of the most important manifestations of digital courage.

PERCEPTION

I want to manage without assistance and that's why I'm determined to learn how to use digital services despite all the challenges.

"Are you talking about your computer? In principle, I only need it when I'm paying bills. In fact, that's the only reason why I need it. You can of course spend time with it if, for example, you are watching films. But I cannot remain idle. I must always have something to do. I use the computer to pay bills because in the place where I live you cannot get to a bank. You must book an appointment. And it is cheaper when you pay the bills from your own account yourself than if you go to a bank and the official does the work and you pay for the service. Surely you realise that you need every cent if you have a small pension. That's why I have taught myself to do it online. It's kind of a must. My daughter sat here for one day and taught me how to do these things. It was quite difficult at first and I had to call her a few times but now I know how to do it. I have several friends that are older than me and they don't have any computers or smartphones like me. They don't know anything about these things but their children help them. But actually I find it quite funny that if someone else took care of my finances, I'd be suspicious of how they manage them. It's because I'm quite straight-laced. It's such a huge matter of trust. I'm determined to be on my own as long as possible; you should ask help only when you are in a really tight spot. If there is no way to manage on your own, then you can ask for help."

A participant in the survey on digital motivation among Finns

PERCEPTION

The benefits of digitalised care work is understood as the work becomes smoother

“You often hear people say that taking care of the patients is no problem as long as you don’t need to worry about the computers and recording the information. It actually describes quite well the situation that you are not so familiar with the computers and the digital equipment. Realising that things get easier if you learn to do a certain thing is probably the most motivating thing. You realise that you no longer need to wrestle with the matter. You get more motivated if you notice it yourself.”

Director of a health centre participating in the survey on social welfare and health care employers and developing employees’ digital competence

HUMAN-ORIENTED DIGITAL SERVICES BOOST DIGITAL COURAGE

Service providers play an important role in supporting digital courage. If a person who has gathered all their courage is prepared to try e-services or a work-related digital service and is disappointed, the consequences of the failure will be seen in many areas. A failure can easily make you feel like a weak learner and a person with inadequate digital skills. It also easily erodes trust in the service provider.

At the same time, positive experiences strengthen belief in your own abilities. Once you have started using new devices and services and realised their benefits in your daily life, you are encouraged to try digital services and equipment again. Thus, when new services are developed, it should be kept in mind that the services and their functioning play an important role in boosting citizens' digital courage.

MANY PEOPLE FEEL THAT THEY ARE LEFT ALONE WITH THEIR EVERYDAY DIGITAL PROBLEMS

In private life, people close to you are often the first ones to help you with digital matters because you can turn to them as soon as the problem arises. However, there are many individuals with no close friends or who live far away from them. Employers often support and enhance their employees' digital competence as part of familiarisation and in this process employees are offered courses and instructions in the use of digital tools. However, support for learning by doing is less frequently available. Problems encountered at work are often dealt with by asking colleagues or immediate supervisors for advice. However, even colleagues do not always know the answers and sometimes there are no colleagues to turn to. And who provides people outside working life with support for digital competence required in working life? In fact, systematic development of digital competence should also include low-threshold digital assistance suited for everyday needs. When digitalisation becomes an increasingly important part of daily life, receiving support becomes increasingly a matter of equality and inclusion.

DIGITAL SUPPORT SHOULD BE PART OF DAILY LIFE

If you know that you will receive the necessary support, you are also encouraged to try new things and learn by doing. However, there are situations where trying and failing is out of the question. When even the most important things are done digitally, digital courage is not always enough and digital support is needed so that the devices and services can be used. However, few people are prepared to seek digital support from a separate source. This means that learning as part of daily life requires digital support adjusted to the pace of everyday routines.

> *Positive experiences strengthen your belief in your own skills.*

PERCEPTION

Peer tutors supporting digital competence in everyday care work

Digital support with a notebook

“I [the manager] am not the one doing the familiarisation in peer tutoring. Instead, the person in charge of the team is responsible for pharmacotherapy familiarisation, while the rest is done by the peer tutor working in the unit. The actual content of the work is taught by the people who work in the same tasks. Some training is provided by the group but in practice, the peer tutor shows how things should be done, ensures that the training is provided and that everybody can find the right information channels. We also have familiarisation templates listing the official things. Students have their own instructors, while three days are reserved for part-timers. If the new employees are familiar with the information system, that’s all they need. More content is added at the request of the persons receiving the familiarisation. Every time when somebody comes here for the first time, a more experienced person starts helping them. You have your own instructor whom you can ask for advice.”

Head of a nursing home taking part in the survey on social welfare and health care employers and developing employees’ digital competence

“My daughter takes the mobile, presses a few buttons and says look mum what you have here. And check the notebook for instructions. I have a notebook in which she has written the instructions for all the gadgets that I have. They are all there when I need them. I wouldn’t have the patience and nobody would be prepared to spend days with me explaining how these things work. That’s the problem. It’s much easier when my daughter writes down the instructions in a notebook and says that you can find them there. If I still don’t understand I call her and she explains what to do and then repeats it a couple of times.”

A participant in the survey on digital motivation among Finns

PERSPECTIVE

WE MUST BE PREPARED TO LEARN NEW THINGS

Uniform basic digital skills also provide a basis for a more equal and democratic society.

Jonna Korhonen
Director, Ministry of Education and Culture

There is a great deal of talk about digital skills and we Finns are generally considered a digitally skilled nation. The COVID-19 pandemic prompted everybody to think about the importance of digitalisation in their own lives. During those months, our ability to study and work at home, to stay in touch with our family and friends, to buy the necessary groceries, to go to a doctor, to use banking services and even to remain physically active largely depended on our ability to use wireless networks and digital devices and applications.

Although we have all travelled the same path in recent years, we have boarded the digitalisation train at different stations. It is therefore important to ensure that all of us, children, young people and working adults, without forgetting the older generation, possess the necessary digital skills. They provide us with extensive opportunities and capabilities to utilise new technologies in digital environments in an active and innovative manner. Uniform basic digital skills also provide a basis for a more equal and democratic society.

We should not be lulled into thinking that our relatively good digital skills are all what we need as we must, through education, research and innovation, remain at the cutting edge of digitalisation and maintain and enhance our skills, at the same time remembering the need for continuous learning. In this way, we can also build confidence in our own competence and the readiness to use it.

Courage also means the readiness to ask for help and support when your own skills are insufficient. Digitalisation challenges us to develop new ways of working together to ensure inclusion and equality. Topical themes include assessing sources, identifying intent, misinformation and disinformation as well as secure online activities.

This year, ministries have worked together to prepare Finland's vision for digitalisation for 2030 in accordance with the European policy programme Path to the Digital Decade. This is called the digital compass. Digital skills are part of the skills section of the compass, which the Ministry of Education and Culture is advancing alongside digital competence and education.

Thesis 2: Lack of digital skills does not arise in a vacuum

In 2022, no one lacks incentives to use digital tools. Even obvious benefits do not always inspire people to improve their digital skills. For some people, learning to use digital tools seems to be basically unpleasant so much that they try to avoid it altogether. What prevents people from learning digital skills despite the benefits of digitalisation? What extinguishes digital courage?

Digital courage is the sum of the environment, digital devices and individuals

A lack of motivation to familiarise oneself with digital devices and services cannot always be attributed to such matters as resistance to change or resistance to digitalisation. Weak motivation is not always your own fault. Perceptions of oneself as a weak digital learner may have arisen long ago at a time when digital devices were not as user-friendly as today. Current learning situations and conditions may also prevent people from learning to use digital devices and services. However, this is often overlooked and the reasons for weak digital learning are thought to arise from the individuals themselves and their characteristics.

> *Learning situations and conditions may prevent you from learning to use digital devices and services.*

PERCEPTION

Learning while working should not slow down your work

”Nowadays, everything is done by computer or by phone. A great deal is required of you and you need to learn new things at work all the time. You feel overwhelmed when digital services are involved. I have my doubts about them. Familiarisation is not always the best way and as a result, you have to learn to use them yourself. It means that [digital devices] slow down your work and if you are in a terrible hurry, you don’t have time to familiarise yourself with them properly, which slows down your work even more. They [devices] are OK if they work but they often slow down your work. No time has been reserved for familiarisation, we learn while working. I work in a warehouse. I do unloading work, which is stressful and you are always in a hurry, losses are entered into digital devices and you have to check the balances. You need to use the minicomputer quite a lot during the work. It slows down your work enormously, you have to go from one page to another to check things, it also takes time. We have to unload each pallet within a specific time. Entering of wastage and other computer work is not included in that time. It only includes the unloading time and you should enter things in the computer as you handle the goods. And if the computer doesn’t work, you are in trouble. It sometimes happen, at least in the mornings. There is no connection or something similar happens, the work is piling up and you try to remember the work that you still have to do.”

A participant in the survey on digital motivation among Finns

THE LIKELIHOOD OF ERRORS INCREASES WHEN WE ARE STILL IN THE PROCESS OF LEARNING NEW THINGS

Digital tools are often used to do things where making mistakes is unpleasant or even dangerous. When digital services are present in all areas of life, even the most important aspects of private life must also be managed digitally. Similarly, in working life, digital tools are used to manage things in which much is at stake: the work input of many people, large sums of money and even the health and lives of other persons. You cannot always take the risk of failure and in such cases, demonstrating digital courage would be reckless. Recognising the limits of digital courage and knowing when you can concentrate on learning how to use digital services is an important digital skill. Adequate and up-to-date digital security skills are also an important complement to digital courage.

UNCERTAINTY IS SOMETHING THAT MUST BE TOLERATED

You must tolerate the discomfort that often results from learning new things. Your environment must also tolerate the uncertainty arising during the learning process. If your environment does not tolerate the uncertainty arising from learning, there is no room for digital courage or learning. Those who criticise themselves for a ‘negative’ attitude may say that at the workplace, there is a lot of talk about encouraging employees to learn digital skills but in practice, the necessary resources are not provided. The workload is not eased even though the familiarisation process slows down work. Targets are not lowered, schedules are not relaxed and the employees are not allowed to slow down the pace of work for the duration of the learning. Support for problem situations or answers to questions may not be available and no provisions have been made for errors.

If your environment does not tolerate the uncertainty arising from learning, there is no room for digital courage or learning.

WEAK MOTIVATION IS OFTEN DUE TO LACK OF ENCOURAGEMENT

It often happens that if you are not encouraged to improve your digital skills, you also lack the motivation to do it. Digital tools are always used to achieve specific objectives. If the best way to achieve the objectives is to rely on analogue means, it is only reasonable for the individual to use them instead of digital tools. Reluctance to learn new things is a rational way to react to the demands set by your environment and not a matter of motivation. If such situations are not identified, individuals are unjustifiably accused of being anti-digital or digitally unskilled. You may even be labelled as someone who is opposed to progress even though the real problem is that learning conditions are not adapted to the needs of different learners. This causes a great deal of harm to the individual. At the same time, the reasons that prevent the development of digital skills remain hidden and problems cannot be addressed. For this reason, it is important to identify, recognise and remove obstacles to learning digital skills.

DIGITAL COURAGE IS ALSO A LICENCE TO BE DIGITALLY UNSKILLED AND MAKE MISTAKES WITHOUT CAUSING ANY HARM

People can only learn new digital skills in an environment that genuinely encourages learning. If learning by trial and error is acceptable, this should be stated openly and in an encouraging manner. If, on the other hand, the risk of failure cannot be tolerated, the conditions for studying must be arranged so that the fear of failure does not prevent the learning. Those who work with the development of digital competencies must identify which of these two situations apply, communicate it clearly to the learners and formulate the conditions for learning as appropriate.

PERCEPTION

People are encouraged to enhance their digital competence but a shortage of labour makes it difficult to ease the workload for the duration of the learning

“It is stated in the skills development plan that we also need time to practice and try new things at our own pace. Otherwise, you cannot improve your digital competence. Attempts were made to encourage supervisors to create such a work culture. But it won’t happen. We have such a serious labour shortage that we cannot work in the way we’d like to. We have an enormous amount of care backlog after the coronavirus. Eliminating it will take years and we don’t have any people to do the work. We know that this would be the way to do it but we don’t have the resources. You should be able to improve your skills so that it doesn’t take up time or resources.”

Skills coordinator working in the social welfare and health care service area of a large municipality taking part in the survey on social welfare and health care employers and developing employees’ digital competence

PERSPECTIVE

HUMAN-ORIENTED ORGANISATIONS THAT MAKE MISTAKES ALSO PERFORM WELL IN THE DIGITAL AGE

Aku Varamäki
Workday designer,
Workday Designers

When we are doing things for the first time, we must also accept that errors occur. However, individuals cannot be left alone to deal with the errors.

Digitalisation is here. We are already used to ordering a pizza for home delivery with an app and utilise new types of communication tools at the workplace. Perhaps we are also interested in data management or have developed services that are completely different from the existing ones. Although the new devices, systems and processes often require a huge amount of learning by employees, they are often the easy part of the change.

When digitalisation meets an individual, work is often undergoing a transformation. For example, after we have taken organisations' customer service functions to social media, the customer service official is suddenly facing completely new learning challenges. In addition to integrating digital encounters into existing systems and processes, we must also learn to assess reputation risks, communicate in a personal manner and relay empathy in digital channels.

The customer service official must now take a more personal and open-minded approach to their work in an environment that is hectic and unpredictable. Humour, warmth, humane encounters and saying sorry are genuinely human abilities that cannot be replaced with machines. These working life metaskills are perhaps the most important part of work in the future. They are the skills that are often used to create unforgettable customer experiences or to determine how an organisation can deal with unexpected situations.

The digital age also challenges organisations to learn. When we are doing things for the first time, we must also accept that errors occur. However, individuals cannot be left alone to deal with the errors. How to support an individual who has said something stupid on social media? What to do if an employee falls victim to online shaming or if an online shop crashes? These are extremely demanding situations psychologically and can even be considered work capacity risks of the digital age. In such situations, nobody should be left alone.

An organisation that takes digitalisation seriously must also take learning seriously. Supporting employees in the learning of new skills and familiarising them with new tools are key challenges facing organisations. Alongside this, it is equally important to develop a culture characterised by genuine caring, bold experiments and the ability to move forward together despite setbacks.

An organisation doing well in the digital age learns to make smart mistakes because they are opportunities to learn.

How do our digital skills appear in the light of indicators?

How do our digital skills appear in the light of indicators?

Finns are well-placed to benefit from their digital competence. Finnish society is highly digitalised, the authorities provide e-services and these services are also extensively used.

Finns also receive high marks as digital users in international rankings. At the same time, more than one citizen in ten feels that they do not have the same access to digital services as others. Eight per cent of young people also face challenges with digital devices during their studies. However, in international rankings, there is only one area where Finland is significantly behind other countries: more often than elsewhere, inadequate skills are the reason why we fail to check the correctness of online content that appears untrue.

In general, companies and organisations also know how to exploit the opportunities created by digitalisation. In organisations, support for digital competence is primarily needed in information security and data protection matters and in the use of data.

Digital Skills Report indicators: society and organisations

Our society is highly digitalised, cyber-secure and development-friendly. The e-government opportunities offered by public authorities exist and are being widely used. Businesses and communities too generally know how to exploit the opportunities created by digitalisation. The Digital Skills Report looks at **society and organisations** in the light of 21 different indicators.

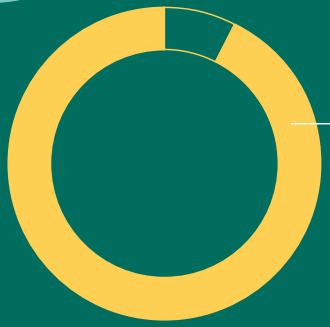
All indicators are summarised in the annexes to the Digital Skills Report.

89.8/100

Digital public services for citizens

92.5/100

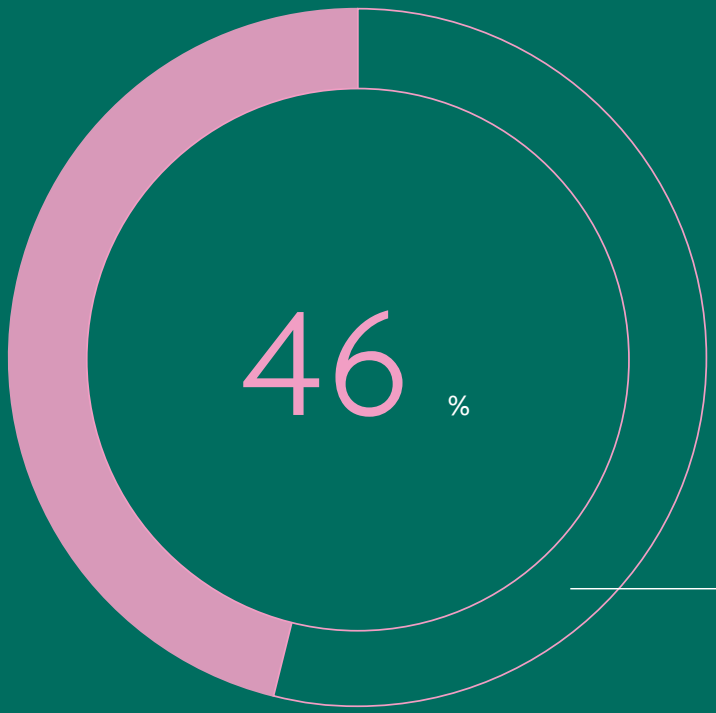
Digital public services for businesses



Public services

4 th place	Finland ranked fourth compared to other EU countries for online public services for citizens public services. Finland scored 89.8 out of 100. Source: European commission: The Digital Economy and Society Index (DESI)
7 th place	Compared to other EU countries, Finland ranked seventh in the ranking of online public services for businesses. public services. Finland scored 92.5 out of 100. Source: European commission, The Digital Economy and Society Index (DESI).

Digital Skills Report indicators: society and organisations



Promoting competitiveness

4 th place

In a global comparison, Finland ranks fourth, while the impact of ICT on business competitiveness. Finland scores 8/10.

Source: IMD World Competitiveness Yearbook 2022.

Cyber security

11 th place

In a global comparison, Finland's ranking is 11th in terms of the level of cybersecurity of the general, basic, exception and and crisis management indicator series. The comparison Finland scored 85.71/100.

Source: National Cyber Security Index.

Digital intensity in companies

46 %

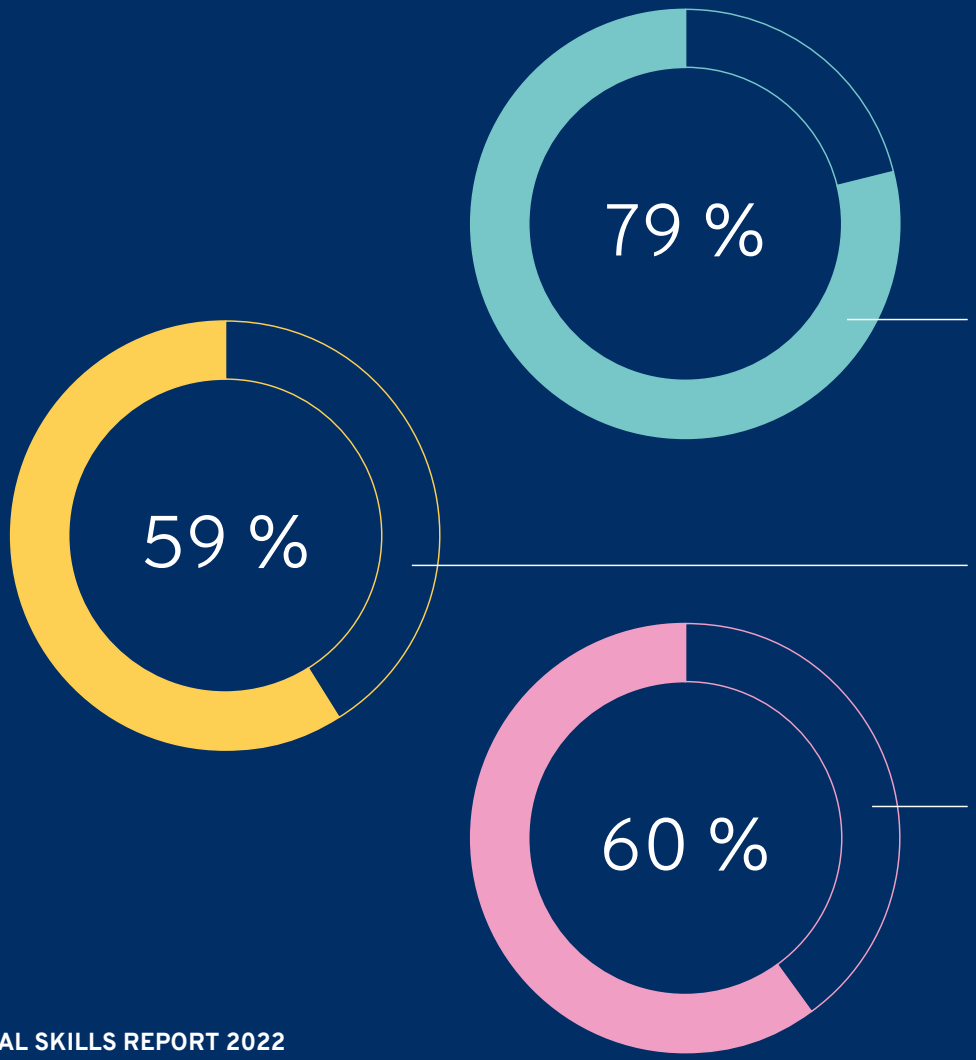
Almost half (46%) of the enterprises surveyed use a variety of digital technologies. In the european wide assessment, the scores were determined by the extent to which these technologies were used by businesses.

Source: Eurostat: Digital Intensity.

Digital Skills Report indicators: individual and households

Even by international standards, Finns got good digital skills. However, society's requirements for digital skills are high and many people feel that they are not equal with others as digital users

All indicators are summarised in the annexes to the Digital Skills Report.



Digital skills

2nd place	79% of Finns have at least basic digital skills. Finland ranks second in Europe. Source: Eurostat: European Union survey on ICT usage in Households and by Individuals.
59 %	59% of Finns feel that they are able to use digital services and devices completely independently and can guide and help others. Source: Digital Skills Survey of the Digital and Population Data Services Agency
60 %	60% of Finns feel that they know how to use digital media services and devices safely. Source: Digital Security Survey of the Digital and Population Data Services Agency.

Digital Skills Report indicators: individual and households

Perception

84 %	84% of Finns believe they can manage at least fairly well with the digitalisation process in the next five years. Source: Digital Skills Survey of the Digital and Population Data Services Agency.
14 %	14% of Finns feel they are weaker online users of internet and digital services than Finns in general. Source: Digital Skills Survey of the Digital and Population Data Services Agency.
39 %	39% of Finns need help at least often with the internet or digital devices. Source: Digital Skills Survey of the Digital and Population Data Services Agency.
8 %	8% of 8th and 9th graders have difficulties in their studies with the digital equipment they use to study. Source: School Health Promotion Study.

How to create a society where everyone can boost their digital courage?

How to create a society where everyone can boost their digital courage?

Digital courage is a key digital skill but it cannot be created from nothing. Digital courage is created in interaction with our digital environment. It arises from positive digital learning experiences and the knowledge that support is available when it is needed.

All those dealing with digital competence should identify digital courage and know how to strengthen it. This Digital Skills Report invites all parties working with digitalisation and digital competence to discuss ways to ensure that everyone has the skills to experiment and learn and the courage to try and can trust the user-friendliness and security of the services and believe in their own abilities.

What would be the best way to jointly promote a digital society where everyone can build their digital courage in a secure and effortless manner?

Bring encouraging digital support into everyday life

People must be encouraged to acquire digital skills. The best way to do this is to highlight how digital skills can make it easier for an individual to do things that are important to them. When the aim is to encourage digital learning, it is essential to emphasise that digital tools and skills must serve individuals and everyday life and not the other way round.

As digital support is primarily needed in the everyday context, it should also be available as close as possible to the locations where digital devices and services are used and at the time when they are used. Human-oriented digital services providing the users with advice and guidance are the best way to offer digital support from the perspective of everyday life. However, other types of digital support, such as support provided by organisations for their own target groups, are also needed.

Now and in the future, digital support must be available on an equal basis and accessible to everyone in all parts of the country. It should also be examined how we could incorporate digital support into people's daily lives in new ways. Unofficial providers of digital support are an important source of everyday digital support. Unofficial digital support is provided by family members and friends but everyday digital support is also offered by a wide range of actors doing customer work, such as social welfare and health care professionals. The skills of these individuals and their awareness of their own role as providers of digital support should be further enhanced.

Courage to try requires space to learn

The conditions for learning digital skills must be designed so that there is enough room for learning. When learning is expected to happen as part of the daily work, it must be ensured that there is sufficient time for learning. This may, for example, require temporary easing of the workload or lowering of targets.

When learning new things takes place by trying and doing it must be ensured that the efforts to avoid mistakes do not prevent learning. In situations where mistakes are not tolerated, learning must be ensured by allocating enough time to it. Uncertainty and lack of prior skills should be accepted as normal when you are familiarising yourself with new digital devices or services. People should be encouraged in both words and action to learn by trying.

It must be identified when the operating environment and requirements should be modified so that learning by trying is genuinely possible. Inadequacies in the learning environment cannot be compensated for by urging learners to show digital courage. When digital skills are taught, it should be kept in mind that learning new things involves hesitancy and uncertainty and overcoming these feelings requires courage. In addition to teaching skills, providers of digital support must also take into account the experience-based and emotional aspect of digital learning and strengthen people's belief in themselves as digital learners.

PERSPECTIVE

IN THE FUTURE, DIGITAL SUPPORT WILL BE PROVIDED AS LOW-THRESHOLD LOCAL SUPPORT ADAPTED TO THE PACE OF EVERYDAY LIFE

You learn by doing and as you become more skilled, you gain confidence in your own abilities and electronic services.

Janne Viskari
Director General, Digital and Population Data Services Agency

Five years ago, as we were building Suomi.fi Messages, a digital mailbox for Finland, we visited market places to present the prototype of the service and asked for feedback from passers-by. An elderly lady said that she does not have any computer and does not want to use any electronic services. However, she was encouraged to try a trial version that worked on a smartphone and after a while asked how to download the version to her own phone.

This example says a lot about the digital services available in Finland and digital skills in our country. Electronic services do not always meet your needs or they may be difficult to use. I am reluctant to use an electronic service if it is easier to manage the matter in some other ways. However, negative experiences do not mean that all electronic services are unsatisfactory. Most of them work well and are easy to use. The services are also continuously updated. Nowadays, user-friendliness is also a consideration in service development, whereas ten years ago, the focus was on technical features.

Occasionally, the threshold for trying a service may be high, especially if you are unsure about your own digital skills. Getting started often helps. For this, you need someone close to you that is ready to provide help and advice. You learn by doing and as you become more skilled, you gain confidence in your own abilities and electronic services. Problems also occur and nobody should be left alone with them. It is the responsibility of the service providers to build services that instil maximum confidence in the users.

To make electronic services accessible to those who would like to use them but lack the necessary courage, the threshold for requesting and providing digital assistance should be as low as possible.

Annex: Information base for the Digital Skills Report

Information base for the Digital Skills Report

Indicators used in the Digital Skills Report

The indicators used in the Digital Skills Report are based on a comprehensive review of regularly repeated indicators. They constitute a thematically comprehensive overview of the degree of digitalisation in Finland and the state of digital competence in our country. The selection of the indicators is based on a comprehensive survey of statistical data, workshop work by experts from the Digital and Population Data Services Agency and discussions with producers of statistical data.

The Digital Skills Report, which is published annually, is based on a set of indicators that can be used to monitor changes in digital skills over the long term. A large amount of digital competence data has been collected for the indicators and the statistical data gathered from different sources have been supplemented with a survey conducted by the Digital and Population Data Services Agency. In the future, an overview of digital competence in Finland will be produced each year on the basis of the digital skills indicators.

Digital Skills Survey of the Digital and Population Data Services Agency

A broad range of different indicators on the overall level of digitalisation in Finland is available and the indicators could be compiled by using existing information sources as a basis. Statistics on the indicators for citizens' digital competence and the manner in which digital services are used have also been collected. However, fewer ready-made indicators describing individuals' experiences were available. For this reason, we supplemented the indicators with a nationwide telephone survey, which will be repeated by the Digital and Population Data Services Agency each year. The data for the telephone survey was collected by Kantar TNS Oy between 22 August and 2 September 2022 and a total of 1,004 Finns aged between 18 and 79 were interviewed in the process. Quotas based on age and gender were used to ensure that the responses were representative of the population as a whole. Corrective weighting was used to ensure that the results accurately correspond to the population distribution of mainland Finland by age, gender and residential area. The data collected in the telephone survey will be transferred for open use in other studies and theses.

Indicators used in the Digital Skills Report: Society and organisations

Public services	Indicator	Data	Description
	Digital public services for citizens	Finland's score 89.8/100 (fourth among the european countries).	The extent to which a service or information concerning service for citizens is provided online and via a portal. Services that are offered fully, partially or not at all online. Source: European Commission: The Digital Economy and Society Index (DESI). The information was collected in 2021.
	Digital public services for businesses	Finland's score 92.5/100 (seventh among the european countries).	The extent to which a service or information concerning service for businesses is provided online and via a portal. Services that are offered fully, partially or not at all online. Source: European Commission: The Digital Economy and Society Index (DESI). The information was collected in 2021.
	Pre-filled forms	Finland's score 89.9/100 (third among the european countries).	Amount of data that is pre-filled in public service online forms. Source: European Commission: The Digital Economy and Society Index (DESI). The information was collected in 2021.
	Public digital services are considered to be of high quality	3.182/5	Average customer assessment of public digital services over the past 12 months. Source: Quality tools of the Digital and Population Data Services Agency. The information was collected in 2022.

Promoting competitiveness

Indicator	Data	Description
Funding for technological development is readily available	Finland's score 8.11/10 (first in global rankings).	Funding for technological development is readily available. Source: IMD World Competitiveness Yearbook 2022, variable 4.2.12 'Funding for technological development: Funding for technological development is readily available'. The information was collected in 2022.
Government action to utilise artificial intelligence	Finland's score 85.99/100 (eight in global rankings).	Depth and coherence of government action to commercially utilise artificial intelligence and machine learning. Source: Tortoise-Media: Global AI Index (sector Government Strategy). The information was collected in 2022.
Development and application of technology are supported by the legal environment	Finland's score 8.11/10 (first in global rankings).	Development and application of technology are supported by the legal environment. Source: IMD World Competitiveness Yearbook 2022, variable 4.2.13 'Development & application of tech. Development and application of technology are supported by the legal environment'. The information was collected in 2022.
Companies are very good at using digital tools and technologies to improve performance	Finland's score 8.00/10 (fourth in global rankings).	Companies are very good at using digital tools and technologies to improve performance. Source: IMD World Competitiveness Yearbook 2022, variable 3.1.10 'Use of digital tools and technologies Companies are very good at using digital tools and technologies to improve performance'. The information was collected in 2022.
Digital transformation in companies is generally well implemented	Finland's score 7.94/10 (fourth in global rankings).	Digital transformation in companies is generally well implemented. Source: IMD World Competitiveness Yearbook 2022, variable 3.5.06 'Digital transformation in companies: Digital transformation in companies is generally well implemented'. The information was collected in 2022.

Cyber security

Indicator	Data	Description
Cyber security	Finland's score 85.71/100 (11th in global rankings).	Level of cyber security on the basis of general, basic level and emergency and crisis management indicators. Source: National Cyber Security Index. The information was collected in 2020.
Cyber security is being adequately addressed by corporations	Finland's score 7.94/10 (third in global rankings).	Cyber security is being adequately addressed by corporations. Source: IMD World Competitiveness Yearbook 2022, variable 4.2.17 'Cyber security: Cyber security is being adequately addressed by corporations'. The information was collected in 2022.
Public services meet information security and data protection requirements	83.256%	How well do national digital services meet information security and data protection requirements? Source: Quality tools of the Digital and Population Data Services Agency. The information was collected in 2022.
Associations know how to manage information security and data protection	53 %	How many of the associations responding to the survey feel that they know how to manage information security and data protection? Source: Järjestödigi. The information was collected in 2020.

Digital intensity in companies

Indicator	Data	Description
Companies with very high digital intensity	10% (first among the european countries).	Companies with very high digital intensity. The digital intensity index measures the use of digital technologies in companies and its score (0–12) is determined by how many of the 12 technologies selected for the index are used by the companies. The higher the score, the higher the digital intensity of the company. Source: Eurostat: Digital Intensity. The information was collected in 2021.
Companies with high digital intensity	36% (second among the european countries).	Companies with high digital intensity. The digital intensity index measures the use of digital technologies in companies and its score (0 –12) is determined by how many of the 12 technologies selected for the index are used by the companies. The higher the score, the higher the digital intensity of the company. Source: Eurostat: Digital Intensity. The information was collected in 2021.
Companies with low digital intensity	35% (sixth among the european countries).	Companies with low digital intensity. The digital intensity index measures the use of digital technologies in companies and its score (0 –12) is determined by how many of the 12 technologies selected for the index are used by the companies. The higher the score, the higher the digital intensity of the company. Source: Eurostat: Digital Intensity. The information was collected in 2021.
Companies with very low digital intensity	18% (second among the european countries).	Companies with very low digital intensity. The digital intensity index measures the use of digital technologies in companies and its score (0 –12) is determined by how many of the 12 technologies selected for the index are used by the companies. The higher the score, the higher the digital intensity of the company. Source: Eurostat: Digital Intensity. The information was collected in 2021.

Organisations

Indicator	Data	Description
Digital competence in nationwide organisations	75%	How many of the respondents to the survey on social welfare and health care organisations feel that they are at least fairly experienced users of digital devices and services? Source: Organisation Barometer. The information was collected in 2022.
Digital competence in local-level associations	37%	How many of the respondents to the survey on social welfare and health care organisations feel that they are at least fairly experienced users of digital devices and services? Source: Organisation Barometer. The information was collected in 2022.
Associations know how to use the data that they collect	18%	How many of the associations responding to the survey feel that they know how to use the data that they collect? Source: Järjestödigi. The information was collected in 2020.
Associations know how to arrange online meetings	45%	How many of the associations responding to the survey feel that they know how to organise online meetings? Source: Järjestödigi. The information was collected in 2020.

Indicators used in the Digital Skills Report: Individuals and households

Digital skills

Indicator	Data	Description
At least basic digital skills	79% (second among the european countries).	Individuals with at least basic digital skills according to the requirements of the following five criteria: information, communication, problem solving, content-creation software and security. Source: Eurostat: European Union survey on ICT usage in Households and by Individuals. The data was collected in 2021.
Basic digital skills	31% (fifth among the european countries).	Individuals with basic digital skills according to the requirements of the following five criteria: information, communication, problem solving, content-creation software and security. Source: Eurostat: European Union survey on ICT usage in Households and by Individuals. The data was collected in 2021.
Above-basic digital skills	48% (second among the european countries).	Individuals with above-basic digital skills according to the requirements of the following five criteria: information, communication, problem solving, content-creation software and security. Source: Eurostat: European Union survey on ICT usage in Households and by Individuals. The data was collected in 2021.
Low digital skills	13%	Individuals with low digital skills according to the requirements of the following five criteria: information, communication, problem solving, content-creation software and security. Source: Eurostat: European Union survey on ICT usage in Households and by Individuals. The data was collected in 2021.
Weak or limited digital skills	5%	Individuals with weak or limited digital skills according to the requirements of the following five criteria: information, communication, problem solving, content-creation software and security. Source: Eurostat: European Union survey on ICT usage in Households and by Individuals. The data was collected in 2021.

Online services and internet

Indicator	Data	Description
Use of public digital services	89% (fourth among the european countries).	Private individuals that have used at least one of the following services during the past 12 months: obtaining information from public authorities' websites, downloading official forms and sending completed forms. Source: Eurostat: European Union survey on ICT usage in Households and by Individuals. The data was collected in 2021.
Digital service users that are able to use digital services and devices independently and can guide and assist others.	59%	How many of the respondents feel that they are able to use digital services and devices independently and can guide and assist others? Source: Digital Skills Survey of the Digital and Population Data Services Agency. The data was collected in 2022.
Individuals that have never used the internet	2%	Individuals that have never used the internet. Source: Eurostat: European Union survey on ICT usage in Households and by Individuals. The data was collected in 2021.
I do coding or programming at least on a monthly basis	9,2%	How many 8th and 9th graders do coding or programming at least on a monthly basis? Source: School Health Promotion Study. The data was collected in 2021.

Internet connections	Indicator	Data	Description
	Households with internet connection	97% (third among the european countries).	Households with internet connection. Source: Eurostat: European Union survey on ICT usage in Households and by Individuals. The data was collected in 2021.
	Households with mobile 3G/4G access	81%	Source: Official Statistics of Finland (OSF): Use of information and communications technology by individuals [online publication]. ISSN=2341-8699. 2021, Appendix table 8. Percentage of households with mobile 3G/4G access in 2021. Helsinki: Statistics Finland [referred to on 15 September 2022]. Access method: http://www.stat.fi/til/sutivi/2021/sutivi_2021_2021-11-30_tau_008_fi.html. The data was collected in 2021.

Security

Indicator	Data	Description
Secure use of digital services and devices	60%	People who felt that their ability to securely use digital services and the devices needed to use them is good or very good. Source: Digital Security Survey of the Digital and Population Data Services Agency. The data was collected in 2022.
The digital operating environment is considered secure	86,5%	Individuals who felt that their work-related and/or leisure-related digital operating environments are fairly or very secure. Source: Digital Security Survey of the Digital and Population Data Services Agency. The data was collected in 2022.
Above-basic digital security skills	90%	Individuals with basic digital security skills in at least three categories: Managing access to your own personal data by checking that the website on which the respondent provided personal data was secure; Managing the use of your own personal data by reading the privacy statements before disclosing personal data; Controlling your own personal data by restricting or prohibiting access to your own geographical location; Managing your own personal data by restricting access to your own profile or content on social networking sites or in shared webhosting; Managing your own personal data by prohibiting the use of personal data for advertising purposes; Changing your own internet browser settings to prevent or restrict the use of cookies on the respondent's device. Source: Eurostat: European Union survey on ICT usage in Households and by Individuals. The data was collected in 2021.

Evaluating data

Indicator	Data	Description
Viewing unreliable information	68% (first among the european countries).	How many users have seen unreliable information on news sites or social media? Source: Eurostat: European Union survey on ICT usage in Households and by Individuals. The data was collected in 2021.
Information contents identified as unreliable are not checked because the checking is considered too difficult or the user does not know how to do it.	14% (11th among the european countries).	Percentage of users that identify unreliable information but fail to check the information because they feel that the checking is too difficult or do not know how to do it? Source: Eurostat: European Union survey on ICT usage in Households and by Individuals. The data was collected in 2021.

Perception	Indicator	Data	Description
	Perception that you do not have the same access to digital services as others	14%	How many of the respondents feel that they are less skilled users of the internet and digital services than Finns in general? Source: Digital Skills Survey of the Digital and Population Data Services Agency. The data was collected in 2022.
	Perception that you have the same access to digital services as others	53%	How many of the respondents feel that they have the same access to the internet and digital services as Finns in general? Source: Digital Skills Survey of the Digital and Population Data Services Agency. The data was collected in 2022.
	Perception that you have more or less the same access to digital services as others	31%	How many of the respondents feel that they have more or less the same access to the internet and digital services as Finns in general? Source: Digital Skills Survey of the Digital and Population Data Services Agency. The data was collected in 2022.
	Perception of your own adaptability to change	84%	How many of the respondents believe that they can keep up with the advances in digitalisation at least fairly well over the next five years? Source: Digital Skills Survey of the Digital and Population Data Services Agency. The data was collected in 2022.
	Perception of your own problem-solving skills in digital services	39%	How many of the respondents feel that they often need help with the internet or digital devices? Source: Digital Skills Survey of the Digital and Population Data Services Agency. The data was collected in 2022.
	Perception of your own motivation to learn new things.	53%	ow many of the respondents is not interested in new digital devices and services but is prepared to learn to use them if it is useful? Source: Digital Skills Survey of the Digital and Population Data Services Agency. The data was collected in 2022.
	Difficulties experienced with devices you use in your studies	8%	How many 8th and 9th graders experience difficulties with the devices they use in their studies? Source: School Health Promotion Study. The data was collected in 2021.
	I have often noted that I am online even though I do not really feel like it	37,9%	How many 8th and 9th graders have often noted that they are online even though they do not really feel like it? Source: School Health Promotion Study. The data was collected in 2021.

Quality of digital services, quality tools of the Digital and Population Data Services Agency

Target group	Type of organisation	Number of services	Number of organisations	Average score
citizens	Municipality	9	4	4.05
citizens	Government	7	4	2.62
companies and organisations,	Municipality	5	3	4.31
companies and organisations,	Government	5	4	1.66
authorities	Municipality	2	2	3.35
authorities	Government	3	3	3.1

The data was taken from the quality tools of the Digital and Population Data Services Agency on 5 October 2022. Quality Tools are tools that an organisation can use to assess and monitor the quality and use of its services. Quality tools are a new service and they are expected to attract more users in the coming years. The following target group breakdown used in the Suomi.fi Finnish Service Catalogue is also used for the quality tools: 1) citizens, 2) companies and organisations, 3) the authorities. Citizens, companies and organisations are the main target groups and they are divided into sub-target groups. The type of organisation providing the service (municipal or central government organisation), the number of services and the number of organisations providing services are also used as grouping criteria.

The average for all customer feedback is 3.182.

Security of digital services, quality tools of the Digital and Population Data Services Agency

Target group	Type of organisation	Number of services	Number of organisations	Average for self-assessment (x/100)
citizens	Municipality	3	2	88.57
citizens	Government	1	1	80
companies and organisations	Municipality	1	1	70
companies and organisations	Government	3	2	85.71
authorities	Government	5	4	92

The data was taken from the quality tools of the Digital and Population Data Services Agency on 5 October 2022. Quality Tools are tools that an organisation can use to assess and monitor the quality and use of its services. Quality tools are a new service and they are expected to attract more users in the coming years. Using self-assessment tools, organisations can evaluate the security of their own digital services. The following target group breakdown used in the Suomi.fi Finnish Service Catalogue is also used for the quality tools: 1) citizens, 2) companies and organisations, 3) authorities. Citizens, companies and organisations are the main target groups and they are divided into sub-target groups. The type of organisation providing the service (municipal or central government organisation), the number of services and the number of organisations providing services are also used as grouping criteria.

The average for all self-assessments is 83.256.

Qualitative studies

Quantitative surveys and statistical data are central to understanding the extent of the phenomena to be examined and to monitoring temporal change. For this reason, they constitute the basis for the annually monitored situation picture. However, the nature of the phenomenon to be examined is not always known in advance. A qualitative approach is better suited for examining such issues. For this reason, a number of qualitative studies have been included in the situation picture so that phenomena or perspectives identified as particularly topical can be examined from an open, qualitative perspective. This makes it possible to open up new perspectives to themes relevant to digital competence of which there is little or no information available.

Four themes were selected for the qualitative studies of the situation picture for 2022: digital motivation among Finns, digital parenthood, supporting digital skills at social welfare and health care workplaces and digital skills of self-employed persons. The acquisition of digital skills was thus examined in the context of both private life and working life.

Working life: Companies and organisations

How to promote continuous development of employees' digital competence and what are the factors challenging the progress? As the statistics do not provide comprehensive answers to this question, the Digital and Population Data Services Agency conducted qualitative case studies in Finnish companies and organisations in 2022, which focused on how organisations support employees' digital competence and what digital competence means to entrepreneurs. Social welfare and health care organisations of different sizes were selected for the survey

to shed light on the employer's perspective on developing digital competence. Care work, which has traditionally been perceived as a face-to-face activity, has become highly digitalised in recent years. This prompted us to focus on changes in the care work and the maintenance of skills in the sector. The social welfare and health care sector was thus examined as an example of how skills can be improved at a workplace on a continuous basis and the challenges it involves from the perspective of the employee and the employer. However, similar phenomena can be identified at workplaces in almost any sector where digitalisation has not yet been fully incorporated into the working methods and employees' competence or where its forms are undergoing a major transformation. Six developers of competence in the social welfare and health care sector were interviewed for the study. The interviewees represented both public and private actors. It was also ensured that the interviewees included individuals from organisations of different sizes. The interviews were conducted as Teams interviews in summer 2022.

Additional light on case studies in the social welfare and health care sector is also shed by a qualitative study carried out by the Digital and Population Data Services Agency in which social welfare and health care employees returning to working life describe the support they have received to maintain their digital skills.

Case studies conducted with self-employed persons complemented the picture and allowed the matter to be examined from a different perspective. Unlike the employees of social welfare and health care organisations, self-employed persons cannot rely on the support of a large and sophisticated organisation in matters related to developing digital competence. What does digital competence or lack of it mean for self-employed persons? Information on the digital skills of self-employed persons was inadequate as only a small number of statistical indicators examining the digitalisation of companies consider self-employed persons. However, one-person businesses constitute a significant proportion of all Finnish companies. A total of five self-employed persons from different parts of Finland were selected for the case studies. The interviewees were selected from fields where self-employment is typical. The interviews were conducted as Teams or telephone interviews in early autumn 2022.

Private life: Motives for improving digital skills

Digitalisation is increasingly important for the smooth running of everyday routines. How do Finns perceive the opportunities and competence needs arising from digitalisation in their daily lives? To shed light on the question, we conducted two qualitative studies in which digitalisation was examined in the context of private life and from the perspective of everyday life.

In the study on digital motivation among Finns, we collected information from Finns with varying levels of digital skills. This material is used to create understanding on how digitalisation and the learning and skills requirements it creates are perceived. The aim was to have participants from four different digital competence levels. Those at the lowest level have little or no digital skills and those at the highest level know how to use a broad range of different digital tools in different situations and are also able to advise others. In the end, participants from all levels, except the lowest one, took part in the study. Participants could submit their responses digitally on a qualitative research platform and in in-depth interviews conducted by telephone. A total of 20 persons from different parts of Finland took part. The participants were selected through a company specialising in research recruitment. The information was collected in summer 2022.

Parents of schoolchildren were the target group for the second qualitative data collection shedding light on the citizen's perspective. The data collection was prompted by the observation that communication between school and home is becoming increasingly digitalised, for example within the framework of student administration systems (such as Wilma). The aim was to find out how digital communication with the school is perceived and how inadequacies in the parents' digital skills may affect the communication between school and home. Five parents and four representatives of a school or an organisation were interviewed for the data collection, which was carried out early summer 2022.

Glossary

Digi	The prefix ‘digi’ means that the matter in question is carried out electronically using digital technology.
Digitalisation	A transformation in which digital ICT devices and services are increasingly used in all areas of everyday life.
Digital environment	Digital services and devices and related phenomena encountered in everyday life.
Digital skills, digital competence	Skills needed to use digital services and devices and to benefit from digitalisation.
Digital support	Support for the use of electronic and other services and digital devices. Its purpose is to help individuals and organisations to use digital devices and services independently and in a secure manner.
Digital security skills	Knowledge and skills needed to use digital services and devices in a secure manner.
Digital courage	Everyday readiness to try new or changed digital devices, tools and services, to become more skilled in their use or use them regardless of the sense of uncertainty.

Notes

The annual Digital Skills Report provides a comprehensive picture of Finns' digital skills and digital support needs, analysing the level and perception of digitisation in businesses, societies and among citizens.

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