Digitalisation in the provision of social services: Rural counties perspective

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Abstract. Digitisation affects all sectors of the economy, including social work. For social service providers (broadly speaking), it is both an opportunity and a challenge. The extent to which professionals manage the use of the digital space for social services has an impact on the accessibility and quality of services for end-users. Technology and innovative digital solutions create opportunities to tackle territorial inequalities and improve the quality of life of people living in rural areas. The provision of social services and assistance is an autonomous function of each municipality. Digital literacy is a component of human capital that includes skills in information flow, communication, safety, content creation, and problem solving in a digital environment. The article presents the results of a study on the digital literacy of social service providers working in rural areas of Latvia. The aim of the study is to find out the self-assessment of digital literacy, understanding, and attitudes towards digitalisation of social services among social service providers. The research instrument is based on the “Citizens’ Digital Competence Framework” (Digi Comp 2.1). The results of the study provide a basis for discussion not only on routine skills in the use of technical tools, but also on a deeper understanding of digitisation in the context of the emergence of a modern information society.

Key words: social services, digitalization, digital competence, rural areas.

1 Introduction

Digitisation is the reorganisation of different areas of social life through the infrastructure of digital communication and media technologies. Digitisation in Latvia can be seen from two perspectives.

The first aspect is the strategic development of the country, in line with the Digital Europe agenda, which is dedicated to extending digital transformation to the benefit of all European citizens, public administrations, and businesses [1]. The Digital Transformation Guidelines 2021-2027, approved by the Latvian Government, mark a new stage in the transformation of Latvia’s socio-economic life, including the further development of rural-urban connectivity. The guidelines provide a unified policy for the digital development of public administration, the economy, and society for the period up to 2027. They create an open ecosystem for a digital society, and envisage that the integration of digitalisation into sector policies will be an essential element contributing to their development [2].
The second aspect is the practical implementation of digital transformation. The widespread adoption of digital technologies poses new challenges for their users. Users’ digital literacy or technology literacy is not always high enough to exploit effectively the opportunities and benefits of technology in their working environment or for their personal interests and needs. In this context, the objectives of the Latvian Guidelines for Science, Technology Development and Innovation 2021-2027 are: to increase innovation capacity and the social and economic value of knowledge and research [3]. They foresee a number of lines of action, including human capital development and cooperation between the research and public sectors.

2 Digitising rural sustainability in Latvia

Defining what is ‘rural’ is usually contrasted with ‘urban’. Areas beyond the city limits are considered rural [4]. However, the term “rural” is multifaceted and can be applied to different places depending on how the boundaries are drawn. The rural-urban divide is most often defined according to its population. Latvia is a small country in terms of its territory. According to the criteria of the Central Statistical Office (CSO), rural areas in Latvia are defined as areas outside urban areas and densely populated areas with at least 500 inhabitants [5]. According to CSO data, in 2021 Latvia had a total population of 1,893,223 inhabitants. Of these, 1,290,233 lived in urban areas (68.15%) and 60,290 in rural areas (31.85%) [6].

The generic term ‘countryside’ is often used synonymously with ‘rural area’ and ‘rural environment’ to refer to the economic and social interactions that characterise the countryside as a whole, as well as to include the natural and cultural values of the rural landscape [7]. Given Latvia’s network of Regional and National Development Centres, the term rural area is also used to refer to the countryside: rural area includes also small towns [8]. After the Administrative Territorial Reform, 375,102 inhabitants (19.81%) lived in rural areas, which are considered sparsely populated areas in 2022 [9].

Countryside can be described as a physical spatial manifestation, while digital space as a non-physical spatial manifestation. Digital space is virtual and non-physical. It refers to the digital environment and the information that is managed and distributed digitally. Digital space allows people to communicate, operate, obtain information and access services, often at a distance from their physical location.

These two concepts - countryside and digital space - offer different perspectives on spatial manifestations and the relationship between physical and digital environments.

The use of digital technologies, including information and communication technologies, creates new opportunities in data management. Data provide the basis for effective decisions, planning and efficient use of resources. The skilful use of digital technologies and tools creates innovative solutions for cooperation locally, between neighbouring villages, and between rural and urban areas, thus improving the quality of life in rural areas. Smart Villages are emerging, with 18 localities in Latvia being awarded the “Smart Village” label [10]. Technological innovation not only does not interfere with local traditions, on the contrary - promotes the preservation of traditional values and identities. Moreover, technology and digital solutions have the potential to overcome territorial inequalities and develop urban-rural equivalence.

2.1 Digitalisation in social services

Reducing regional inequalities is one of the key objectives of Latvia’s National Industrial Policy (NIP). This includes improving living standards and the industrial and territorial social environment, achieving balanced territorial development of rural economies and
communities, including the creation and preservation of employment, are the objectives of the National Industrial Policy [11].

The objectives of the NIP guidelines for reducing regional inequalities, improving the standard of living, and improving the industrial and territorial environment in Latvia include:

- Sustainable, stable and adequate social protection that ensures sufficient economic independence;
- A modern and accessible system of social services that, among other things, improves people’s chances of living independently and in society, and of entering education and the labour market [11].

Providing social services and assistance to people is a professional activity. In Latvia, it is a broad sector of activity involving around 850 service providers: state institutions, municipal social services and their subordinate institutions, non-governmental organisations (NGOs) and private initiatives [12]. These institutions employ specialists in various fields - social carers, psychologists, rehabilitation specialists, etc. However, Municipal Social Services and social workers play the leading role in the provision of social services.

Social services and assistance are targeted at people who are at risk of poverty and social exclusion. (It should be noted that according to the Central Statistical Office (CSO), in 2021, 418 000 or 22.5% of the population of Latvia was at risk of poverty. The highest share of the population at risk of poverty was in Latvia’s regions, compared to Riga (15.9%) and Pierīga (16.6%)) [13].

In the 21st century, information and communication technologies play an increasing role in the logistics of effective communication and service delivery and are considered an integral part of social work practice in this ‘digital age’ [14]. The provision of social services to clients bases on a diverse range of inter-agency and inter-professional collaborations. Therefore, the knowledge and ability of professionals to use modern technologies and tools is essential for the provision of quality services.

The 2017 European Social Network (ESN) report highlighted the technology literacy of the social services workforce, focusing on preparing social workers for the challenges of the future. It highlighted the importance of training and supporting professionals to develop new competences to make effective use of new technologies, as well as to promote the improvement of their own skills in the use of technology through peer support programmes [15].

The use of digital technologies in social services in Latvia has been given a strong boost by the Covid-19 pandemic (2020-2021). In a context of social distancing, the shift towards remote working made it necessary for social service providers to master intensively the possibilities of technology to respond to clients’ needs for assistance and services. A national study by the Living with Covid-19 program found that all social service providers identified digital competences, technology and communication tools as necessary for remote working, but not sufficient [16]. It can therefore be argued that the Covid-19 experience highlighted weaknesses. Latvia ranks 20th among the 27 EU countries in Connectivity. Due to low incomes and low population density, commercial incentives for operators to connect premises in rural areas remain insufficient. The digital divide is still present between urban and rural areas [17]. In 2021, 86.9% of rural areas had access to the Internet [18].

In the discussion “My opinion for tomorrow’s economy” organised by the Bank of Latvia and the association “Civic Alliance of Latvia”, social service providers from various fields expressed their opinion that digitisation is a very important thing, but it creates big problems for the inhabitants of rural areas and various groups of people. A large part of the population is unable to cope with the digital solutions and asks for help from their peers. People still want to feel human contact [19].
2.2 Problem

Digital technologies, as an integrated part of social services, permeate and transform the diverse inter-institutional and inter-professional interactions and cooperation with clients. The transfer of many functions to digital platforms is gradually creating a relatively independent digital space for social services. As in any space, it presupposes appropriate user behaviour, rights, and responsibilities, which in turn depend on the digital literacy of the professionals involved in social services.

The limits of opportunities and risks in the digital space are hard to see. The usual direct communication and interaction between social service providers and end-users (clients) are now mediated by the conditions of the digital space, in a sense transforming the perception of reality. The digital competence of professionals is a key factor in the security and reliability of the service the end user receives. It is the digital space that makes it possible to overcome distances and build connectivity to different points in physical space. That makes it possible to reach social services in remote locations in rural areas. The extent to which professionals are proficient in the use of the digital space for social services affects the availability and quality of services for end-users. Social service providers are both consultants and educators. In practice, social workers are most often the ones who educate their clients on how to get information and fill in forms online. (A CSO survey (2021) on the interaction of citizens with state or public service providers concluded that citizens who did not use the internet to send completed forms to state, municipal or public service providers lacked knowledge and skills, so someone else did it for them). [18] Often these are social service providers, and social workers, who are among those others who do it for their clients. The results of the research on digital literacy of social service providers serve to promote the development of skills to a clearly defined standard of digital literacy for professional social service providers and to achieve a higher level of safety and reliability in the use of the digital space of social services.

3 Theoretical framework

In a broad sense, rural liveability is linked to the availability of different types of capital. Capital includes a variety of resources. In addition to natural resources, which are an important factor in rural viability, financial, human, social and cultural capital are equally important and contribute in different ways to the development of areas and the well-being of people.

Digitalisation in social services is examined in this study from the perspective of capital theory. Social capital and human capital, as important components of professional capital, form the conceptual framework for the analysis of the practical implementation of digitalisation in social services.

3.1 Social capital

The classical understanding of social capital is shaped by the ideas of P. Bourdieu and R. Putnam. The information society in which we live today provides new contexts, giving new meanings to familiar ideas and expanding them with new content. This can also be applied to the concept of social capital.

Pierre Bourdieu’s definition of social capital highlights the aggregate of the actual or potential resources that are linked to possession of a durable network of more or less institutionalized relationships [20].

P. Bourdieu says that the existence of a network of connections is not a natural given or even a social given [...] and describes this relationship as one that is transformed by being
the product of an endless effort in order to produce and reproduce lasting, useful relationships that can secure material or symbolic profits. Maintaining and nurturing this network of relationships requires specific competences - the knowledge and skills to use real connections, to acquire and maintain this competence, which are themselves integral parts of this capital [20].

P. Bourdieu’s network of relationship concept encourages the development of the idea that the analogue of a network of relationships can also be a digital space, which has no physical boundary, is independent in real space and time, and has other characteristics, but its main characteristic is ‘connections’ or ‘links’. It is thus possible to redefine social capital as digital social capital.

According to R. Putnam, social capital takes different forms [21]. He stressed that all forms of social capital, indeed any form of capital, can be used to ends that are in some instances destructive. Reciprocity and trust as forms of social capital are equally applicable to digital social capital. Thus, one can agree with Michael Lightfoot’s conclusion that the digital social capital does not exist as discrete and separate entity from the classical concept of social capital. Rather, it is a sub-set of conventional social capital albeit one that has its own features and characteristics [22].

3.2 Digital literacy as a component of human capital

Reproducing and maintaining social capital requires specific knowledge and skills, which are components of human capital. In a broad sense, human capital is productive wealth invested in developing and building personal talents, including education and learning, preparation for working life, moral values and creative potential. Human capital can be defined as the stock of knowledge, skills, and other personal characteristics embodied in people that helps them to be productive [23].

When we want to emphasise the role of people - true practitioners of their craft - in a company, institution, organisation, or sector, and the crucial role of people in the growth of an organisation, we often use the expression: professionals are our treasure! It is a bit of pathos, but it is the idea of performance. Therefore, the concept of human capital includes not only knowledge and skills at the individual level, but also an organisational dimension, i.e. their performance and their potential in the organisation [23].

Digital competence involves the confident, critical, and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society. It includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital well-being and competences related to cybersecurity), intellectual property related questions, problem solving and critical thinking. [24] Digital Economy and Society Index (DESI), The Human Capital dimension of DESI has two sub-dimensions covering ‘basic skills and usage’ and ‘advanced skills and development’. The former includes indicators on internet use by individuals and digital skills (individuals with at least basic skills as per the Digital Skills Indicator) [25].

In the effort to find a model for measuring digital literacy, the concept of digital capital as a specific type of capital has been frequently used in the literature over the last decade: digital capital as ‘the accumulation of digital competencies (information, communication, safety, content creation and problem solving), and digital technology’ [26]. These competences are also included in “The Digital Competence Framework for Citizens” (DigiCom2.1): information and data literacy; communication and collaboration; digital content creation; safety; problem solving [27].

Digital Capital Theory is concerned with the value of digital technologies, data and information and their impact on the success of service providers. These indicators help to
measure an individual’s level of digital literacy and ability to use digital technology in different domains and situations. This assessment model helps to understand what an individual’s ability to operate in a digital environment is and how to contribute to the development of digital literacy in society.

In Latvia, there is no separate digital skills standard for social workers. However, according to the Social Worker Occupational Standard (2020), digital competence is described as the ability to confidently, critically, and securely use digital technologies in professional activities and communication to carry out the social worker’s job duties, including for research, education and information purposes. The Professional Standard for Lead Social Workers (2021), on the other hand, sets out the objective: to promote the integration of digital technologies in social service organisations and in improving access to services.

4 Methodology of a survey

The aim of the study is to explore social service providers’ self-assessment of digital competence, perceptions, and attitudes towards digitisation in social services. The application of the results is aimed at identifying whether and which support measures are needed to develop digital literacy.

The questionnaire provides quantitative data on respondents’ views and attitudes towards digitalisation and digital literacy in social services.

The questionnaire included questions on the respondent’s demographics, education, work experience, and entry into the unit (position held). In order to refine the self-assessment of digital literacy of social service providers, the questionnaire consists of five sets of questions covering digital competences.

The questionnaire bases on the principles and guidelines of the “Digital Competence Framework for Citizens” (Digi Comp 2.1): information and data literacy; communication and collaboration; digital content creation; safety; problem solving. This approach provides sufficiently comprehensive and transparent information and provides a basis for a multifaceted analysis of respondents’ digital literacy and for conclusions and recommendations to improve the delivery of social services.

The data are collected from two regions of Latvia - Vidzeme and Zemgale. Although these regions still have incomplete internet coverage in rural areas, they have generally established technologically well-equipped service centres. Training of staff in the use of the applications and tools has also been provided.

The data are therefore applicable to a limited number of social service providers. The data are collected between November 2022 and March 2023.

113 respondents working in the field of social services participated in the survey.

4.1 Characteristics of the respondents

The questionnaire was completed by 113 respondents, 71 (63%) from Vidzeme region and 42 (37%) from Zemgale region. Of the respondents, 44% represent small towns, 31% settlements (villages, parish centres), while 25% of the respondents represent sparsely populated rural areas. All completed questionnaires are valid and can be used for further data processing.

The majority of respondents, i.e. 51 respondents (45%), are aged between 26 and 45. Thirty-five respondents (31%) are aged between 46 and 55, while 23% (26 respondents) are of pre-retirement age. One percent of respondents have reached retirement age.

The study sample includes 1 male and 112 females.
Sixty-four (56%) of the respondents have a professional bachelor’s degree in social work, 15 (13%) have a professional master’s degree in social work, 14 (13%) have a bachelor’s degree or first-level higher education in another field, and 8 (7%) have both a master’s degree in another field and a first-level higher education in social work. Only 4 (4%) of respondents have a general secondary or vocational secondary education as their highest level of education. The majority of respondents 37% (42 respondents) obtained their highest level of education before 2011, 36% (41 respondents) obtained it between 2012 and 2017 (inclusive) and only 27% obtained their highest level of education after 2018.

Respondents hold the following positions:
- 54 (52%) are social workers;
- 20 (19%) head a social service, department or other institution;
- 13 (13%) are senior social workers;
- 7 (7%) work as a social carer;
- 4 (4%) perform the duties of another social work professional or support person;
- 3 (3%) are social assistance organisers;
- 2 (2%) act as social rehabilitators.

The majority of the respondents, i.e. 29 respondents (26%), have been working in the social sector for 8-13 years, 27 respondents (24%) for 2-7 years, 25 respondents (22%) for longer, i.e. 14-19 years, and 22 respondents (19%) for more than 20 years. Only 10 (9%) respondents have been working in the sector for less than 1 year.

4.2 Results

The largest group of participants (76%) in the study is in the middle working age group, for whom it is important to be in the labour market with the right skills for at least the next ten years. Sixty-seven percent of respondents have at least 7 years of experience in the social sector.

Respondents indicate that digital technologies are least used in direct collaboration with the client and that there is still a lot of work on paper documentation of various kinds. 63% of the responses indicated that the majority of work - decision-making, correspondence, assessments, opinions, client files, etc. - is done in paper format. But 65% of the responses indicated that most of their day-to-day work is spent meeting clients face-to-face. Only 14% of the professionals use remote communication with their clients, via telephone (video, audio calls, sms), video conferencing, e-mail, correspondence, etc.

Social work professionals are confident in their abilities in the field. Assessing their digital skills according to the DigComp1 criteria, the most common skill was rated as being able to do things independently.

Almost all professionals are able to obtain information and use data independently, including supporting and guiding others. Social work professionals struggle with the ability to retrieve information using artificial intelligence, with 42% only able to do this with the help of someone, and 20% not at all.

Social workers also face challenges in dealing with issues such as technical problems (being able to edit the operating system configuration of their digital devices to deal with technical problems, being able to identify why a digital device is failing to connect to the internet, being able to identify what IT help is needed, etc.). On average, professionals rated this criterion as 2, or they indicated that they are able to perform this activity with someone’s help. Likewise, when faced with a technical problem, finding solutions on the Internet is a problem. About 38% of respondents are able to do this with someone’s help, while 13% do not know how to do it at all. To determine the correlation between respondents’ age and ability to create digital content, Spearman’s rank correlation was
calculated, the correlation was found to be statistically significant \( (p < 0.001) \) and there was a weak negative correlation between the two \( (r = -0.375) \), suggesting that there is a trend towards the ability to create digital content being influenced by employees’ age.

Overall, social workers believe that the use of digital technologies facilitates their own professional practice, with 51% of respondents saying that digital technologies make their work rather easier and 42% strongly believing that digital technologies definitely make their work easier.

Some respondents were also asked whether the use of digital technologies makes it easier for clients to receive social assistance and social services, with 60% of respondents indicating that the use of digital technologies rather makes it easier for clients to receive social assistance and social services. The Spearman rank correlation showed a correlation between respondents who believed that the use of digital technologies facilitates the professional activities of professionals themselves and those who believed that the use of digital technologies facilitates the access of clients to social assistance. The correlation is statistically significant \( (p < 0.001) \) and there is a moderately strong positive correlation between these indicators \( (r = 0.534) \). It can be concluded that those professionals who see digitisation as an opportunity in their professional activities also see it as an opportunity from the customer’s point of view. This suggests that, overall, a significant proportion of social service providers have had positive experiences with technology and are therefore optimistic about the role of digitisation in the provision of social services. This has a positive impact on professional activities and on clients’ access to social services and assistance.

To determine the relationship between the ability to deal with security-related issues, the criteria of not disclosing or denying access to personal data in a digital environment and the criterion of checking whether the website where the personal data is to be provided is secure (e.g. https sites, security logo or certificate), a Spearman rank correlation score was calculated. The correlation was found to be statistically significant \( (p < 0.005) \) and there was a moderately strong positive correlation between these indicators \( (r = 0.664) \). It can also be concluded that those professionals who are able to perform complex activities related to the security of their data are able to do so at different levels.

Similarly, when analysing the correlation between the ability to use digital devices without harming one’s health (e.g. controlling the time spent on digital devices) and the ability to reduce the energy consumption of one’s devices (e.g. changing settings, closing apps, turning off WiFi), Spearman rank correlation was calculated. It was statistically significant \( (p < 0.005) \) and there was a moderately strong positive correlation between these indicators \( (r = 0.616) \). It can be concluded that those professionals who are able to use digital devices without harming their health are also able to influence energy consumption, thus improving the performance of the equipment and reducing energy costs.

When analysing the relationship between the period of most recent education and the ability to use AI, respondents who completed their education after 2018 are more likely to be able to use AI independently. On the other hand, respondents who were educated before 2011 are only able to use these opportunities with the help of someone.

5 Conclusions

The positive and optimistic assessment of social service providers about the role of digitisation in the provision of social services shows that social service providers are open to technological innovation in social services.

Respondents also indicated a high level of paperwork in 63% of responses. This points to poor digitalisation and the need to modernise processes to make information flow more efficiently. Automated extraction of data for the preparation of various documents such as
certificates, decisions, etc. would reduce not only ‘paper’ work. Planning and efficient use of resources also depend on the availability of data. Automated data extraction would also facilitate organisational activities between institutions at different levels, cooperation between districts and between the centre and peripheral areas.

Respondents self-assessed their digital skills as sufficiently high, believing that they are able to work independently in a technological environment, including supporting and guiding others. However, this belief in good technology skills may not reflect the reality of the situation. Given the above discussion of the extensive ‘paper’ work, the technologies and applications used in everyday work do not require a high level of digital literacy. The usual standard operation may indeed not be difficult and the user may feel confident in their skills. However, in a digital environment, there can be non-standard situations when faced with new applications or technical problems. The fact that 41% of respondents find it difficult to solve technical problems or find solutions on the internet, according to their own assessment, does indicate the limits of respondents’ digital literacy. Digital literacy in one or another skill area has an impact on overall performance. The ability or inability to solve technical problems is also linked to skills in security, communication and collaboration, and content creation in the digital environment.

One of the most important skills is to respect data security. The analysis of the survey data shows that professionals generally understand the digital environment in terms of data security. Thus, it is reasonable to assume that employees are able to treat their customers’ data responsibly. However, this skill remains a challenge for those respondents (42%) who have difficulty in obtaining information and those who have difficulty in solving technical problems (38%).

The age of the professionals surveyed is an important aspect in the analysis of digital skills. In this study, 55% of respondents are over 50 and close to retirement age. Comparing these figures with the study on the evaluation of the effectiveness of Latvian municipal social services and social work specialists (2017), which included 849 participants employed in social services, shows a similar age structure (46-55 years 31.4%; 56+ years 18.3%). This indicates an ageing of professionals working in the social work sector in general.

The majority of professionals in the 50+ age group had completed their professional training by 2011. Data indicated that respondents who completed their education before 2011 were only able to use newer technologies, including artificial intelligence, with the help of someone. This suggests that older professionals are confident enough to perform routine operations in a digital environment, as they have had at their disposal applications appropriate to their professional duties and tasks. However, adapting to the use of new applications, including artificial intelligence, could be a challenge.

Overall, it also points to the need for support and training in learning the latest technologies and for older professionals to adapt to digital developments. Failure to do so creates the risk that digital inequalities among social services professionals will widen and may have a negative impact on work processes and service quality. It is therefore necessary to ensure a balanced development of digital skills for all professionals.

Digitalisation is a challenge for people living in rural areas, for different groups of people. Lack of digital skills is becoming a social problem. Unable to cope with the digital solutions being developed, a significant part of the population is asking for help from their peers. By meeting clients face-to-face and helping them to learn digital tools to communicate with state and local authorities (e.g. to apply for services), social workers and other social work professionals in rural areas also become digital literacy facilitators for their clients. Therefore, the digital literacy of service providers cannot be limited to routine skills.
It is important that staff are able to adapt not only to the use of technical tools, but also to respond to the changing needs of customers. Social service providers need to invest time and resources in developing qualitatively higher digital competences in order to achieve a deeper understanding of digitalisation in a digitally organised space of social relations.

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