Eurofound

Impact of digitalisation on social services

This report examines the use of digital technologies in social services and the policies that promote digital transformation. The use of digital technologies in social services in Europe has not been studied to the same extent as its use in healthcare. While there are some studies on this topic, many of them focus on the use of information and communications technology (ICT) rather than more advanced types of digital technologies. The digital technologies analysed in this report are based on previous Eurofound research, which classified them into the following three clusters:

- automation of work: advanced robotics, artificial intelligence (AI) and machine learning
- digitisation of processes: Internet of Things, virtual reality/augmented reality and telepresence
- coordination by platforms

Digitalisation is analysed in relation to its impact on the design and delivery of social services. The social services studied include those listed in the European Pillar of Social Rights and can be public, private for-profit, or non-profit.

This report was researched and produced before the onset of the COVID-19 virus. A number of key messages and policy pointers have been added on the basis of the findings which could be useful for policymakers as they seek to address the range of issues which will emerge in the aftermath of the pandemic.

Policy context

Ensuring Europe is fit for the digital age is one of the priorities of the European Commission in the period 2019–2024. The actions to achieve this include looking into the human and ethical implications of AI, a European data strategy, improving the working conditions of platform workers, strengthening the digital skills of Europeans and digitalising European institutions.

European institutions have asked Member States to increase their efforts in promoting the digital economy. In the 2019 European Semester, 17 countries received recommendations related to digital technologies and digitalisation. Most of these 17 countries were asked to focus investment-related economic policy on digitalisation (including digital skills and infrastructure), taking into account regional disparities.

EU initiatives that deal specifically with the digitalisation of health and social care tend to focus on health-related issues, such as e-prescriptions or disease prevention. This prevalence of digitalisation in healthcare rather than social care can also be seen at the national level. The digitalisation of social services often takes place in combination with healthcare (for example, setting up databases to share health and social care records) or as part of wider reforms in the public sector. Often, the objectives of the digitalisation of social services are to achieve cost efficiency and to allow older people to live in their own homes independently for as long as possible.

Key findings

- Robots are used in health and social care mainly to monitor and interact with older people and/or to assist them with cognitive tasks. Robots also help carers by providing physical assistance (for example, lifting patients). The costs of robots, safety concerns and opposition from carers and the general public have limited their use in social care.
- The Internet of Things has been used in the homes of older people for monitoring purposes (for example, fall detection) and to facilitate cognitive and interactive tasks. The use of this technology and telecare in the future will be facilitated by the reduction in costs of wearable devices and the increasing familiarity of the population with these technologies.
- Care provided with the aid of robots, telepresence and wearable devices can also reduce the risk of contagion and ensure the continuity of care in times of confinement, lockdown and physical/social distancing.

- AI has been used in the planning of resource allocation and in the handling of applications for benefits in cash or in kind. AI can also predict needs at the individual level from service users and assist public employment services in matching jobs with applicants more efficiently.
- As in the case of the services sector, the use of blockchain technology is in an early phase of adoption in health and social care, where it has been used to pay benefits in cash and to monitor pension contributions.
- Platforms have been used to put users and providers of home care and childminding services in contact. The use of this technology can increase in the future in those social services where public provision decreases. As citizens become more accustomed to these technologies, they are more likely to use them to access social services.
- The level of evidence regarding the impact of these technologies in social services is limited, partly because many of these technologies are in a preliminary level of deployment. There is evidence that the automation or reduction of administrative processes allows staff to increase their productivity and to dedicate more time to other tasks. For example, the information available through wearable devices facilitates more efficient use of resources. In contrast, there have also been cases in which digitalisation has increased the workload, where staff need to spend more time reporting, monitoring or assisting service users when services are digitalised (for example, filling in online application forms).
- Digital technologies can achieve savings by helping to prevent more costly and intensive care, detecting fraud more effectively and ensuring that scarce resources are allocated more efficiently.
- From the users' perspective, digital technologies have contributed to an increased sense of safety and to the capacity of older people to live longer in their own homes. This in turn means that older people are less reliant on help from carers and that admissions to care homes can be postponed.

Policy pointers

- Resistance from staff and service users constitutes a barrier to the further deployment of digital technologies. While some of their concerns may be justified, the reluctance to use digital technologies can be due to lack of knowledge and skills. Further involvement of users in the co-design of services would also have a positive impact on uptake and on the user-friendliness of technologies.
- The review of the EU's Digital Education Action Plan and the new EU funding programmes provide an opportunity to tackle the digital divide and increase skills and familiarity with digital technologies. Tackling the digital divide and investing in digital infrastructure and skills are crucial, as these technologies are important tools to prevent contagion.
- The fragmentation of social services and the lack of a specific institution responsible for the digital transformation process have hindered the digitalisation of social services. The fragmentation of information (for example, having several databases of service users) also has a negative impact. Digital technologies can themselves help to tackle this fragmentation, especially if there is a centrally responsible body that drives harmonisation and sharing. Further exchanges and mutual learning between Member States regarding how to achieve the digital transformation of services could benefit from action at EU level.
- Most of the policy initiatives dealing with the digitalisation of social services identified in this research at EU and national levels focus on healthcare. While some issues and services are similar to health and social care, a more specific approach dealing with data protection, ethical issues and user involvement would be beneficial for the successful implementation in social services. The crisis ensuing from the Coronavirus disease (COVID-19) pandemic makes this specific focus all the more necessary, as these technologies are vital in ensuring the continuity of care, tackling social isolation and meeting spikes in the demand of care.

Further information

The report *Impact of digitalisation on social services* is available at http://eurofound.link/ef19043

Research manager: Daniel Molinuevo

information@eurofound.europa.eu