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Digital Transformation and Information Security in Public Administration in Poland: Social Policy Service Delivery in Practice*

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Abstract

This article examines the use of digital technologies in public administration for the provision of services to citizens within the framework of social policy. A large national social insurance institution is analyzed as a case study of advanced digital transformation in the public sector. Modern tools and programs based on online communication are discussed, together with their benefits and potential risks. Particular attention is paid to cybersecurity and information protection in public service delivery. The article also addresses international cooperation and knowledge exchange among social security institutions. The main conclusion highlights the need for continuous improvement of digital tools and competencies to ensure both service efficiency and information security.

Keywords: digital transformation, public administration, social policy, information security, cybersecurity, e government

Introduction

The Internet plays a crucial role in contemporary society. Daily activities such as banking, communication, and administrative procedures increasingly take place online. Tasks that once required physical presence in offices are now handled remotely. Consequently, digitalization has become an inherent feature of modern governance. Digital transformation is particularly significant in relations between public administration and citizens, as the administration performs a service-oriented function toward society. The development of e-government solutions enhances accessibility, efficiency, and transparency of public services. At the same time, institutions must adapt their structures and processes to technological change.

Public sector innovation requires both organizational and technological transformation (Kobylińska, 2016).

Moreover, trust, transparency, and accountability remain fundamental conditions for effective public management (Krot & Lewicka, 2013). Digital public services also influence citizens' financial and social security (Pogonowski, 2022).

The purpose of this paper is to analyze how digital solutions improve social policy implementation and how information security is ensured within public administration. A national social insurance institution serves as an example of a highly digitalized public body.

Information Security in Public Administration

Citizens, beneficiaries, and businesses expect public administration to deliver services according to the highest standards, with information security being a key requirement. The growing digitalization of administrative processes inevitably increases the risk of personal data breaches.

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Information security is commonly understood as protection against unauthorized disclosure, modification, destruction, or loss of availability of information. Its core attributes include confidentiality, integrity, availability, accountability, and reliability.

Data have become one of the most valuable resources in modern society. Institutions collect and process vast amounts of sensitive information. Any breach may undermine public trust and expose individuals to fraud or identity theft. Therefore, ethical standards and responsible behavior of employees are as important as technical safeguards (Lewicka-Strzałecka, 2017).

The rapid development of digital technologies has also led to new forms of cybercrime. For this reason, cooperation among administrative institutions, law enforcement agencies, and cybersecurity specialists is essential.

Digital Transformation of Social Policy Service Delivery

In recent years, the analyzed institution has become one of the leaders of digital transformation in Polish public administration. Its strategy for 2021–2025 identifies four main directions:

- development of a modern e-office,
- data exchange and integration within e-administration,
- electronic communication and documentation,
- automation and process improvement.

These activities aim to increase efficiency, service quality, and citizen satisfaction.

Electronic Contribution System

One of the first major reforms was the introduction of an individual electronic contribution account for each payer. The legal basis for this solution was the Act of 11 May 2017 amending the social insurance system (Journal of Laws, 2017). Instead of making several transfers to different accounts, payers make a single payment to one dedicated account.

This simplified settlements, reduced administrative errors, and improved the efficiency of public finance management.

Electronic Services Platform

The Electronic Services Platform constitutes one of the first comprehensive e-government portals in Poland. It enables insured persons and contribution payers to access their data, submit applications, download certificates, and communicate with the institution online twenty-four hours a day.
The platform also supports electronic document submission and automated verification processes. Such solutions enhance transparency and user convenience while reducing operational costs.

Digital Services During the COVID-19 Pandemic

The COVID-19 pandemic significantly accelerated the development of e-administration. During this period, millions of electronic applications for financial support were processed through automated systems. Digital infrastructure enabled the institution to maintain operational continuity despite physical restrictions.

Video consultations (“e-visits”) were introduced, allowing citizens to contact advisors remotely. This innovation improved accessibility and reduced waiting times.

Electronic Sick Leave Certificates

Another important reform was the full digitalization of sick leave certificates. The legal framework for this solution was provided by the Act of 15 May 2015 on cash benefits from social insurance in the event of sickness and maternity (Journal of Laws, 2015). Since 2018, certificates have been transmitted electronically from physicians directly to the administration and employers.

This system improved control mechanisms, reduced fraud, and accelerated information flow. Artificial intelligence and big data analytics are now used to detect irregularities and enhance decision-making processes.

Digital Inclusion of Seniors

Public administration also undertakes activities aimed at digital inclusion of elderly citizens. Educational campaigns encourage the use of bank accounts and online services. These initiatives promote financial security and reduce the risks associated with cash transactions.
Electronic identification tools and mobile applications provide easier access to services, increasing independence and confidence among seniors.

Mobile Application and Electronic Records

A dedicated mobile application allows users to receive notifications, submit applications, and book appointments. Furthermore, legislative changes enabled the digitalization of employee documentation and shortened document retention periods, increasing efficiency and reducing costs for employers.

Cybersecurity Measures

Because social insurance institutions process sensitive personal and financial data, cybersecurity is treated as a strategic priority. Preventive and monitoring mechanisms are implemented in cooperation with specialized national cybersecurity bodies.
Compliance with the Act on the National Cybersecurity System (Journal of Laws, 2018) and interoperability regulations (Regulation of the Council of Ministers, 2012) ensures legal and organizational consistency. However, technological solutions alone are insufficient. Human awareness and training remain the most important elements of information protection. Continuous education helps prevent social engineering attacks and unauthorized access.

Conclusion

The analysis demonstrates that digital technologies have become essential for effective public administration. The digital transformation of social policy services improves efficiency, accessibility, and transparency. At the same time, it creates new challenges related to data protection and cybersecurity.
The COVID-19 pandemic accelerated the adoption of e-government tools and confirmed their practical value. Nevertheless, continuous modernization of systems, employee training, and cooperation with specialized institutions are necessary to maintain security standards.
Public administration must therefore balance innovation with responsibility, ensuring that digital solutions enhance both service quality and citizens' trust.

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