

NECESSITY AND CHALLENGES OF DIGITAL TRANSFORMATION IN PUBLIC ADMINISTRATION

Sorina-Mihaela BĂLAN*
Daniel-Cornel BĂLAN**
Liliana BĂLAN***

ABSTRACT: *In the contemporary context, the call for digital transformation resonates widely, especially in Public Administration (PA). The goal of digital transformation in PA is to improve public service delivery, enhance government efficiency, and effectively engage citizens. This involves implementing E-Government Services, digital platforms, data-driven decision-making, and open data initiatives. The exploration is centred around key questions regarding value creation, extending the value proposition, incorporating human-centered innovation, designing an adaptable organization, and identifying digital capabilities at various levels. The assessment includes investigating the impact of digitalization on public services, enhancing the value proposition in the digital future, integrating human-centered innovation, designing an organization responsive to ongoing changes through digitization, and identifying necessary digital skills. M-Government initiatives, robust cybersecurity measures, and collaboration with the private sector contribute to streamlined processes, fostering citizen engagement. The transformative endeavour is organized around three pillars: Performance, Organizational dynamics, and Collaboration, addressing digitization's potential to generate value, strategies for future value propositions, innovation integration, adaptable organizational design, and essential digital capabilities across organizational levels. The overarching aim is to make government services accessible, efficient, and responsive in the digital age, the opinions of young students, future employees, and promoters of digital transformation are interesting!*

KEYWORDS. *Digital transformation, Public Administration (PA). E-Government Services, Citizen engagement, Governance quality, Cybersecurity*

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* Assoc. Prof. Ph.D. "Dimitrie Cantemir" University from Târgu Mureș, ROMANIA.

** Ph.D student at Technical University Cluj Napoca, Engineering and Management, ROMANIA.

*** Student at George Emil Palade" University of Medicine, Pharmacy, Sciences, and Technology of Tîrgu Mureș, Faculty of Economics and Law, ROMANIA.

INTRODUCTION

In the contemporary landscape, the imperative for digital transformation is underscored across various organizations, with particular emphasis on Public Administration (PA). Digital transformation in public administration aims to enhance public service delivery, improve government efficiency, and engage citizens effectively.

The core questions guiding this exploration include:

1. Can the digitization of PA create value for clients and lead to increased revenue for PA?
2. How can we deliver and extend the value proposition in the digital future?
3. How can human-centered innovation be embedded and leveraged?
4. How can we design an AD organization to respond effectively to ongoing changes through digitization?
5. What digital capabilities are required at different levels (Employees/Teams/Management)?

The levels on creating value, extending the value proposition, incorporating human-centered innovation, designing an adaptable organization, and identifying digital capabilities, figure 1.

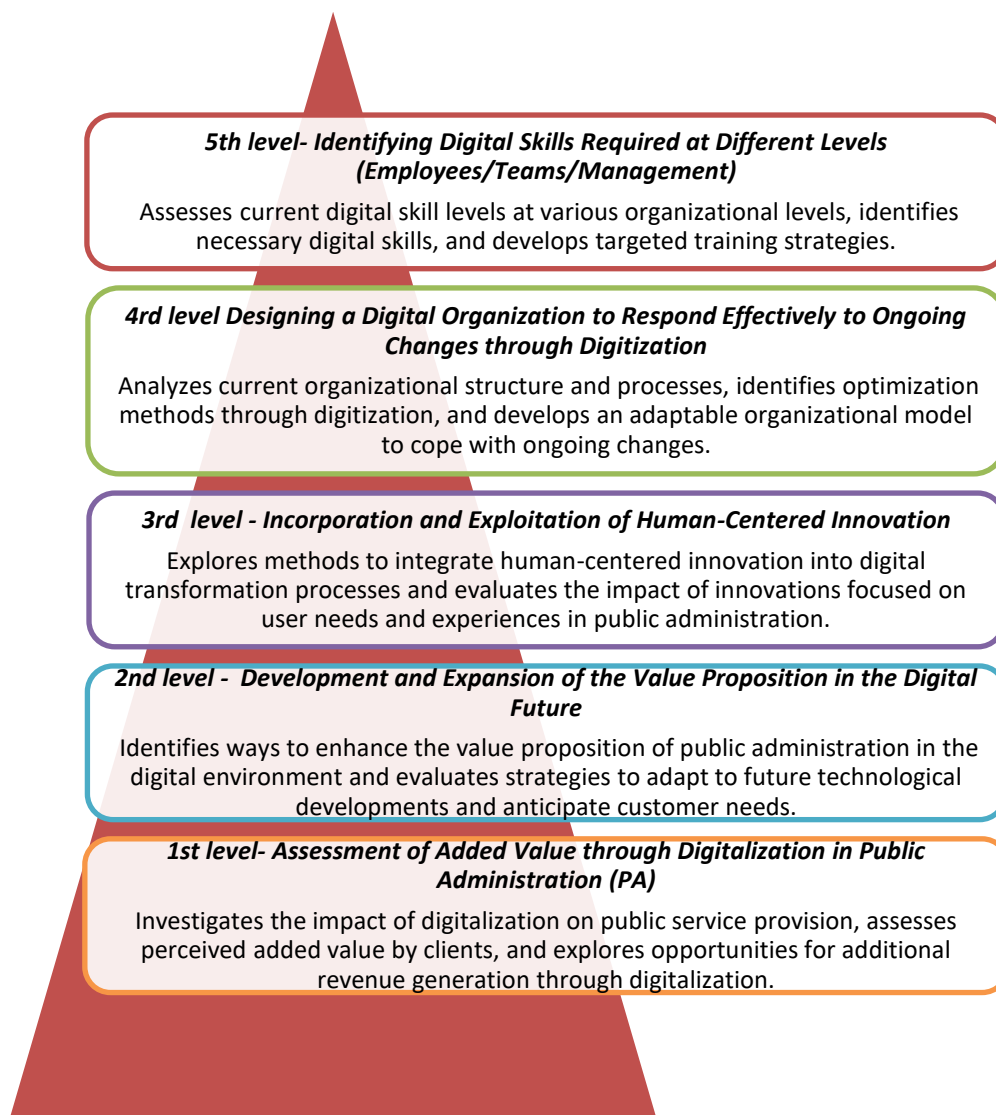


Figure 1. The Five level Digital capabilities. Author Sorina-Mihaela BĂLAN

1. RESEARCH METHODOLOGY

Studies and research dedicated to digital transformation in public administration were been consulted, academic databases such as PubMed, IEEE Xplore, ScienceDirect, JSTOR; the websites of international organizations: the United Nations (UN), the World Bank or the Organization for Economic Cooperation and Development (OECD); specialized publications and magazines: "Government Information Quarterly", "Journal of e-

Government Studies and Best Practices", "Public Administration Review", research reports published by national or local governments.

We used keywords such as "digital transformation in public administration", "e-government studies", "government digitalization research", etc. Nabatchi, T., & Leighninger, M. (2015 two leaders in the field, Public Participation for 21st Century, in ,). Public participation for 21st century democracy examines how public participation developed over time to include myriad thick, thin, and conventional opportunities, occurring in both face-to-face meetings and online settings.

Meta-analyses dates from studies (Table 1):

Year	Citation	Methodology	Results
2018	Scupola, A. (2018). Digital transformation of public administration services in Denmark: A process tracing case study. <i>Nordic and Baltic Journal of Information and Communications Technologies</i> , 2018(1), 261-284.	One initial classification of effects and risks of digital transformation of public administration by function and stakeholder group. In Denmark	Possible areas for future research: - developing and piloting a government digital trans-formation framework based on the identified positive effects and risks. - further disaggregation of the proposed framework for specific beneficiary sub-groups. For instance, some additional specific positive outcomes (and, indeed, risks) may be relevant to specific industry sectors or social groups. - developing adequate measurement approaches for monitoring the extent of digital maturity in the public administration may have both theoretical significance and broad practical application
2020	Bondarenko, S., Liganenko, I., & Mykytenko, V. (2020). Transformation of public administration in digital conditions: world experience, prospects of	The analysis of the most successful countries of the world showed that the level of digitalization is	The transformation of public administration in the context of digitalization will affect, first, the quality of public administration

Year	Citation	Methodology	Results
	Ukraine. Social Development and Security, 10(2), 76-89.	directly dependent on the level of economic development of the country, infrastructure. Study from Ukraine	services, improving communication, reducing the cost of maintaining public administration, additional opportunities for businesses and citizens to receive services.
2020	Datta, P. (2020). Digital Transformation of the Italian Public Administration: A Case Study. Communications of the Association for Information Systems, 46, pp-pp.	Case study of 60 million people, 8,000 municipalities, and 23,000 local administrations	The case offers digital transformation recommendations that one can generalize across any global democracy. This case surfaces best practices and challenges faced when trying to tackle a mega-project across an entire economy.
2020	Rot, A., Sobińska, M., Hernes, M., & Franczyk, B. (2020). Digital transformation of public administration through blockchain technology. Towards Industry 4.0—current challenges in information systems, 111-126.	The study from the project financed by the Ministry of Science and Higher Education in Poland under the programme “Regional Initiative of Excellence” 2019–2022 project number 015/RID/2018/19	The study is constructed on the fundament of literature studies, empirical observations, case study analyses and synthetic evaluations, with the aim of revealing the potential applications of the blockchain technology and highlighting the challenges and possible directions of blockchain research in the public sector.
2020	MurariuM.; Berrule-Grigoriță M.V. (2020) Digitalisation – A Sine-Qua-Non Condition For The Romanian Public Management in <i>European Finance, Business and Regulation</i> , EUFIRE 2020, Pp621-631	- analysing the level of digitalisation within public institutions in Romania, an analysis on groups of age and gender	Over 40% of the civil servants registered to NACS are over 50 years old. The appetite to change towards digitalising public services is smaller than in the case

Year	Citation	Methodology	Results
		-on the measures suggested and implemented by the Romanian administration during the COVID - 19 crisis to ensure the continuity of the inter-institutional activity, as well as its collaboration with the citizens	of younger people, who have much better digital skills The COVID-19 crisis has accelerated the implementation of some digitalisation measures in the field of public administration, but there are still important steps to be made until we can solve such problems with the help of a single click of a mouse.
2021	Armenia, S., Casalino, N., Gnan, L., & Flamini, G. (2021). A systems approach to the digital transformation of public administration. <i>Prospettive in organizzazione</i> , 14.	The Systems Thinking (ST) and System Dynamics (SD) approaches to analyse the advantages that can pursue through the digitalization of their processes, in terms of organizational change, productivity and economic savings.	The first model, called "As-Is", represents the situation in which the reference organization operates, is a traditional model of "paper-intensive," where there is no implementation of solutions for the dematerialization of document management. The second model, called "To-Be", describes the future situation. The "To-Be" model represents the situation that the organization should tend to optimize its processes and sub-processes by increasing its performance, reducing paper consumption, and the costs associated with managing the entire system.
2022	Nikitenko, V., Voronkova, V., Oleksenko, R., Andriukaitiene, R., &	The research methodology used consists of	The emergence of a new "digital person" is explored, whose essence

Year	Citation	Methodology	Results
	Holovii, L. (2022). Education as a factor of cognitive society development in the conditions of digital transformation. <i>Revista de la universidad del zulia</i> , 13(38), 680-695.	axiological, comparative, synergistic, structural-functional methods and approaches.	is that the technological revolution has made it possible for everyone to connect to the network, to contribute to the network effect, allowing people to work in real time and generate income by moving in the markets. The concept of the formation of the digital economy has been structured, as a factor in the cognitive development of society, and new digital strategies have been revealed for firms, companies, organizations, companies that face immeasurable challenges and opportunities for digitization and for achieve success.
2022	Motorga, M. E. (2022). Public Policy and Digital Government Public Framework in Romania during the pandemic. The case of aging people. In <i>Political Studies Forum</i> (Vol. 3, No. 1, pp. 93-124). Editura Universității de Vest.	The core point of this paper is an attempt to study governmental policies on aging and digitalization in Romania. The current analysis intends to determine the influence of a poorly built digital system in Romania regarding a vulnerable category, such as the elderly population.	The author considers that there are a number of gaps in this research addressing public policies of digitalization, technology, and the connection of old people to the digital era. More methodological work is needed in a physically examination of how elderlies understand the digital world, how digitalized the public administration and the Romanian system is, and what civil society and the government can do

Year	Citation	Methodology	Results
			to solve the issues are existing.
2023	Sjöberg, C. M. (2023). Algorithms in Public Administration: Legal Implications. In <i>The Rule of Law and Automated Decision-Making: Exploring Fundamentals of Algorithmic Governance</i> (pp. 195-208). Cham: Springer International Publishing.	A central issue in the establishment of legal automation in public administration concerns the transformation of legal information into digital environments. In this context, regulation of automated decision-making (ADM), machine learning (ML), and artificial intelligence (AI) give rise to several key questions.	The rule of law requires awareness of the kind of consequences that come with so-called dynamic (changeable) algorithms, as opposed to the static ones. To a considerable extent, societal development boils down to a quest for proactive law as a supplement to traditional preventive law. Legal infrastructures need to be considered at early stages of system design, development, implementation, and management.

In this article, we compiled a comprehensive list of keywords accompanied by their definitions, encompassing pivotal concepts related to the digital transformation in public administration.

These keywords include core elements such as *digital transformation*, *E-Government Services*, *citizen engagement*, *transparency*, *responsiveness*, *governance quality*, *data-driven decision-making*, *open data initiatives*, *value proposition*, *human-centered innovation*, *organizational dynamics*, *adaptable organization*, *digital capabilities*, *assessment of added value*, *revenue generation*, *future technological developments*, *customer needs*, *Mobile Government (M-Government)*, *cybersecurity*, *secure digital identity solutions*, *automation*, *collaboration with the private sector*, *education programs*, *legal framework*, *ongoing digital transformation*, and *stakeholder engagement*. This curated list serves as a foundation for exploring and understanding the multifaceted aspects of digital transformation within the realm of public administration.

We administered two distinct qualitative questionnaires—one distributed via email/F2F for adults and another through Google Forms for young high school / college students. Subsequently, we conducted a comparative analysis of the responses. The research methodology also incorporates a SWOT analysis to provide a comprehensive assessment of the findings.

Key Concepts in the Realm of Digital Transformation

A list of definitions and references offer a comprehensive understanding of the additional terms related to digital transformation and public administration.

- **Digital Transformation.** The integration of digital technology into various aspects of an organization, fundamentally changing how it operates and delivers value to its stakeholders. According to Gartner, "Digital transformation can refer to anything from IT modernization (for example, cloud computing), to digital optimization, to the invention of new digital business models."
- **Public Administration (PA).** The implementation and management of government policy, programs, and services. Oxford Reference defines Public Administration as "the implementation of government policy in the daily lives of its citizens."
- **E-Government Services.** The delivery of government information and services online to citizens. OECD defines E-Government Services as "the use of information and communication technologies, particularly the internet, to improve and/or enhance the efficiency and effectiveness of service delivery in the public sector."
- **Government Efficiency.** The ability of a government to optimize its resources and processes to achieve desired outcomes. "Government Efficiency" is often discussed in policy literature; for example, in "Government Efficiency: Concepts and Criteria for Measurement" by Daniel J. Gifford.
- **Citizen Engagement.** The involvement of citizens in the decision-making processes of government. According to the World Bank, "Citizen Engagement involves citizens actively in the work of government, at all levels – in policymaking, service delivery, and in developing partnerships to address development goals."
- **Transparency.** The openness and accessibility of government actions, decisions, and information. "Transparency in Public Administration" by G. A. Simon, where transparency is discussed as a key principle in public administration.
- **Responsiveness.** The ability of a government to address the needs and concerns of citizens promptly. In "Responsive Governance: Strategies to Be Nimble, Efficient, and Effective," Anthony J. Colangelo explores the concept of responsiveness in governance.
- **Governance Quality.** The overall effectiveness and quality of governance within a system. Reference: "Governance Matters" by Daniel Kaufmann and Aart Kraay, published in the World Bank Economic Review, discusses indicators of governance quality.
- **Data-driven Decision-making.** The process of making decisions based on data analysis and interpretation. The book "Competing on Analytics" by Thomas H. Davenport emphasizes the importance of data-driven decision-making in organizations.
- **Open Data Initiatives.** Efforts to make government data available to the public in a format that allows reuse and redistribution. The Open Data Handbook provides insights into the principles and practices of open data initiatives. These references provide a foundation for the definitions, and further exploration in academic literature and authoritative sources can deepen the understanding of these terms.

- **Value Proposition.** A business or service offering's unique value to customers or stakeholders. „Value Proposition Design" by Alexander Osterwalder provides insights into creating compelling value propositions.
- **Human-centered Innovation.** Innovation that focuses on understanding the needs and experiences of individuals to create solutions. "The Art of Innovation" by Tom Kelley explores human-centered design principles in the innovation process.
- **Organizational Dynamics.** The forces and factors that impact the functioning and behaviour of an organization. "Organizational Dynamics" by W. Warner Burke discusses the study of how organizations function and change.
- **Performance.** The accomplishment of tasks and goals by an individual, team, or organization. In "Managing for Results" by Peter F. Drucker, the author emphasizes the importance of managing for performance.
- **Adaptable Organization.** An organization capable of adjusting and evolving in response to changing circumstances. „The Agility Factor" by Christopher G. Worley and Thomas Williams explores the concept of organizational agility.
- **Digital Capabilities.** The skills, knowledge, and capacities needed to effectively use digital technologies. "Digital Capabilities: The Key to Successful Digital Transformation" by Didier Bonnet and George Westerman discusses the importance of digital capabilities.
- **Assessment of Added Value.** The evaluation of the increased value resulting from a particular action or initiative. In "Measuring Performance and Value in Digital Transformation" by Mark Tonetic, the assessment of added value is a key aspect of digital transformation evaluation.
- **Revenue Generation.** The process of creating income or earnings within an organization. "The Revenue Growth Habit" by Alex Goldfayn provides insights into strategies for revenue generation.
- **Future Technological Developments.** Anticipating advancements and innovations in technology that will shape the future. Reports from technology research firms like Gartner and Forrester provide insights into future technological developments.
- **Customer Needs.** The requirements and expectations of customers that drive their preferences and choices. "Understanding Customer Needs" by I. Glenn Cohen emphasizes the importance of understanding and meeting customer needs
- **Mobile Government (M-Government).** The use of mobile devices and technologies to provide government services and engage with citizens. "Mobile Government: An Emerging Direction in E-Government" by Salah Al-Sharhan explores the concept of M-Government.
- **Cybersecurity.** The practice of protecting computer systems, networks, and data from security breaches and cyberattacks. "Cybersecurity Essentials" by Charles J. Brooks provides foundational knowledge in cybersecurity.
- **Secure Digital Identity Solutions.** Technologies and measures ensuring the confidentiality and integrity of digital identities. "Identity Is the New Money" by David Birch discusses the importance of secure digital identity solutions.

- **Automation.** The use of technology to perform tasks with minimal human intervention. "The Second Machine Age" by Erik Brynjolfsson and Andrew McAfee explores the impact of automation on the economy.
- **Citizen Engagement.** Involving citizens in government processes, decision-making, and public service improvement. "Public Participation for 21st Century Democracy" by Tina Nabatchi and Matt Leighninger discusses strategies for citizen engagement.
- **Collaboration with the Private Sector.** Cooperation between government entities and private businesses to achieve common goals. "Public-Private Partnerships: Principles of Policy and Finance" by E. R. Yescombe provides insights into collaboration between the public and private sectors.
- **Education Programs.** Systematic courses or initiatives designed to impart knowledge, skills, and awareness in a particular field. "Effective Online Teaching: Foundations and Strategies for Student Success" by Tina Stavredes discusses effective strategies for education programs.
- **Legal Framework.** The set of laws, regulations, and guidelines that establish the structure for legal processes and decisions. "Law, Legislation and Liberty" by F. A. Hayek provides a philosophical perspective on the importance of a legal framework.
- **Ongoing Digital Transformation.** The continuous and iterative process of adopting and adapting digital technologies within an organization. "Leading Digital: Turning Technology into Business Transformation" by George Westerman, Didier Bonnet, and Andrew McAfee provides insights into sustaining digital transformation.
- **Stakeholder Engagement.** Involving individuals or groups who have an interest or concern in a decision or action. "Stakeholder Theory: Concepts and Strategies" by R. Edward Freeman and "The Stakeholder Strategy" by Ann Svendsen explore theories and strategies for stakeholder engagement.

What is digital transformation?

Digital transformation refers to the *integration* of digital technologies into various aspects of business and organizational processes to fundamentally change the way they operate and deliver value to customers. It involves leveraging technology to improve efficiency, enhance customer experiences, and drive innovation across an entire organization.

The article *Developing a unified definition of digital transformation*, developed a unified definition of "digital transformation" based on a vastly rigorous/scientific review and analysis of 134 well-received, published definitions of DT that significantly differentiates from other related terms in the literature (Gong, C., & Ribiere, V., 2021).

Digital transformation (DT) endeavours to optimize processes within PA by leveraging digital opportunities to enhance interactions with PA clients. Success in these efforts hinges on a comprehensive understanding of the systems slated for transformation, the policies they serve, and the broader framework of PA. With the development of artificial intelligence, big data, 5G and other emerging technologies, digital transformation is impacting and subverting the existing technology path and organization mode (Delin, Z., Jiawei, C., & Taohua, O., 2021).

DT is not just about adopting new technologies but also about reimagining business models and processes to stay competitive in the rapidly evolving digital landscape. It is a continuous journey that requires leadership commitment, a strategic vision, and a focus on delivering value to both internal and external stakeholders. DT in PA involves leveraging technology to improve the delivery of public services, enhance government efficiency, and engage citizens more effectively. The goals of DT in this context often include increased transparency, responsiveness, and overall better governance.

A comprehensive understanding of the systems to be transformed, the policies they serve, and the broader PA setting in which they are implemented were deemed central to succeeding in digital transformation efforts.

Key aspects of digital transformation in public administration.

- *E-Government Services*: Implementing online platforms and services to allow citizens to access government services and information easily. This includes services such as online tax filing, permit applications, and access to public records.
- *Digital Platforms*: Developing and utilizing digital platforms that facilitate communication and collaboration within government agencies. This can improve coordination, data sharing, and decision-making processes.
- *Data-driven Decision Making*: Using data analytics and business intelligence tools to analyse large datasets for better policymaking, resource allocation, and service optimization.
- *Open Data Initiatives*: Sharing government data with the public in a standardized, machine-readable format. This promotes transparency, accountability, and encourages the development of innovative applications by third parties.
- *Mobile Government (M-Government)*: Providing government services through mobile applications, making it convenient for citizens to access information and services on the go.
- *Cybersecurity Measures*: Implementing robust cybersecurity measures to protect sensitive government data and ensure the integrity of digital systems.
- *Digital Identity and Authentication*: Developing secure and user-friendly digital identity solutions for citizens, facilitating secure access to government services and minimizing fraud.
- *Automation and AI*: Introducing automation and artificial intelligence to streamline administrative processes, reduce manual work, and improve the efficiency of public services.
- *Citizen Engagement*: Leveraging social media, online forums, and other digital channels to engage with citizens, gather feedback, and involve them in decision-making processes.
- *Collaboration with the Private Sector*: Partnering with private companies and leveraging their expertise to enhance public services and infrastructure.
- *Education and Training*: Providing training programs for government employees to enhance their digital skills and ensure they can effectively use and manage the new technologies introduced through digital transformation.

- **Legal and Regulatory Framework:** Establishing clear regulations and legal frameworks that support digital transformation initiatives while ensuring privacy, security, and compliance with relevant laws.

Digital transformation in public administration is an ongoing process that requires careful planning, stakeholder engagement, and a commitment to continuous improvement. It aims to make government services more accessible, efficient, and responsive to the needs of citizens in the digital age.

1. *Assessing Added Value through Public Administration (PA) Digitalization* involves examining how digitalization impacts public service delivery and assessing the perceived added value by clients. Additionally, it includes analysing opportunities for generating extra revenue through digitalization.
2. *Developing and Expanding the Value Proposition in the Digital Future* focuses on identifying ways to enhance and expand the value proposition of public administration in the digital realm. It also involves evaluating strategies to adapt to future technological changes and anticipate customer needs.
3. *Incorporating and Leveraging Human-Centered Innovation* entails exploring methods to integrate human-centered innovation into digital transformation processes. It also involves assessing the impact of innovations that prioritize the needs and experiences of users in the context of public administration.
4. *Designing a Digital Organization for Agile Responses to Continuous Changes* involves analysing the current organizational structure and processes and identifying optimization methods through digitization. The goal is to develop an adaptable organizational model to effectively navigate ongoing changes through digitization.
5. *Identifying Digital Skills Required at Different Levels (Employees/Teams/Management)* focuses on evaluating the current digital skill levels at various organizational levels and identifying the necessary digital skills. The aim is to develop targeted training

Is there a need for digital transformation? The SWOT analysis

The SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis is a useful method to evaluate the necessity and feasibility of DT in a specific organization or domain. Here's a general SWOT analysis for digital transformation:

Strengths	Weaknesses
• Digitalization can bring increased efficiency to organizational processes. • It provides the opportunity to deliver services and information more accessible to citizens and employees. • Digital transformation can bring innovations to how the organization conducts its activities	• Resistance to Change: Employees or current processes may resist the adoption of new technologies. • Implementing digital solutions may involve significant initial costs. • Risks associated with data security can be a potential weakness.
Opportunities	Threats
• Using technology to improve processes can lead to a significant increase in organizational efficiency.	• Digital Exclusion: Certain segments of the population may face digital exclusion, potentially accentuating social inequalities.

• Digital transformation can open doors for the development and offering of new services or products./The opportunity to better involve citizens in decision-making processes and provide more personalized services.	• Risks of cybersecurity increase with the growing use of technology. • Public resistance to the use of technology or concerns about privacy may pose threats to digital acceptance.
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The perceptions of young individuals and seniors regarding digital transformation in public administration

The perceptions of young individuals and seniors regarding digital transformation in public administration can vary based on their experiences, familiarity with technology, and expectations. Here are some general perspectives that might be associated with each group:

Perceptions of Young Individuals	Perceptions of adults/seniors
• Young individuals, often referred to as digital natives, are generally more comfortable with technology. They may have high expectations for seamless, user-friendly digital services from public administration. • Young people may prioritize convenience and efficiency in accessing government services. They may appreciate online platforms, mobile applications, and streamlined processes that allow them to interact with public administration digitally. • Younger generations may see digital platforms as opportunities for increased civic engagement. They may expect governments to actively seek their input through digital channels and involve them in decision-making processes. • Young individuals might view digital transformation as a sign of innovation and progress in government. They may see it as a way to modernize public services and make them more adaptable to changing needs.	• Seniors, especially those who did not grow up with digital technology, may express concerns about the learning curve associated with adopting new digital tools. They may worry about their ability to navigate and use online services. • Seniors might have concerns about the accessibility of digital services, emphasizing the importance of ensuring that these services are inclusive and cater to individuals with varying levels of digital literacy. • Trust in the security and privacy of personal information may be a significant consideration for seniors. They may want assurances that their data is protected when using digital platforms for government services. • Some seniors may prefer traditional methods of interacting with public administration, such as in-person visits or phone calls. They may value the human touch and personalized assistance. • Seniors may express concerns about potential digital exclusion, where those less familiar with technology might feel left behind. Governments need to address these concerns to ensure inclusivity

Overall, understanding and addressing the diverse needs and expectations of both young and senior populations are crucial for the success of digital transformation initiatives in public administration. Tailoring digital services to be inclusive, user-friendly, and respectful of various levels of digital literacy is essential to bridge the generation gap in perceptions.

The study about the perspectives of young students and older adults regarding digital transformation in public administration.

Methodology: Two separate qualitative questionnaires were designed—one for young students and one for older adults:

1. The Number of Students: 10, Age: 16–21 years
Institutions: Colegiul Național Unirea (Mathematics-Informatics/Natural Sciences), Colegiul Economic Transilvania, Colegiul Național “Alexandru Papiu Ilarian,” UMFST Târgu Mureș (Faculty of Medicine - Nutrition and Dietetics specialization, English literature).
2. The number of adults = 12, between 30-39 years= 5 peers; between 40-49 years= 2; between 51-60 years= 5 years. The occupation: Economist- 4; Teacher=1; Engineer=5; Public Administration=2.

The surveys covered demographics, experiences with digital services, perceptions of digital transformation, views on the digital future, and suggestions for improvement.

1. Young Students' Perceptions	2. Adults' Perceptions
Digital Proficiency: Young students generally possess advanced digital skills, with widespread use of digital services. The Level of digital technology use 3-beginner; 3-advanced; 4-advanced. 8 students used digital services offered by public administration. Optimism and Innovation: They perceive digital transformation as an opportunity for innovation, envisioning improved citizen-administration interactions. All students believes that digital services can bring significant improvements in the relationship between citizens and public administration and completed: <i>” because it improves the communication between citizens and public administration.”; ”by reducing miscommunication.”; ”because it brings us together and we can learn more easily”;</i> <i>” considering today's war on information, it would be verry useful to have proper information about everyday ongoing life.”; ”because they can communicate easier and resolve problems</i>	Digital Familiarity: The adults exhibit varying levels of digital familiarity, with some being beginners and others having intermediate or advanced skills. The Level of familiarity with digital technology: Intermediary=7; Advanced= 5. Access and Challenges: They value accessibility but may face challenges in using digital services, such as navigating complex interfaces. Eleven adults have used online services offered by the public administration Adults evaluate the accessibility of digital services offered by public authorities as being at the level of: Medium=4; Advanced= 1; Can be improved=1; Accessible to those in the know=1; Fairly accessible=1; efficient=3; satisfactory=1 Eight of the adult respondents did not encounter any difficulties in using digital technology and one considered that the websites of the town halls or the AP are not updated, so that access to online services is as intuitive as possible

1. Young Students' Perceptions	2. Adults' Perceptions
faster.”; “It may help the evolution of citizens”, „ by making the process easier and faster”; “ because it improves the communication between citizens and public administration.	
Perception of the Digital Future: Students see positively the evolution of public services in a digital future: “All could be done on the phone”; “Not much better”; „To be very accelerated in the next 5 years.”; „Every process that required you to visit an office should be digitalized.”; “I think it will evolve a lot and quickly”; „Better and better”; „I think that everyone is going to solve their problems from home.”; „The public services bring many advantages for the future ”;“I believe that digital services could replace humans at some extent ”;“To be very accelerated in the next 5 years.” The most important aspects of the digital transformation in PA according to the students are: “Not wasting time”; „It makes it easier when needed”; „It makes it easier to pay your taxes and be more informed”; „Every platform should be simple and straightforward to use.”; „Easy access”; “That they don’t need so many employees”; “Are helpful for taking easier with the clients and other people”; “Shortening the waiting time and avoiding queues”; “It makes it easier to pay your taxes and be more informed”	Perception of Digital Transformation: The adults recognize the potential benefits of digital transformation, particularly in improving service accessibility and efficiency. Adults believe that digital transformation can improve public services: Efficiency(2); „simplifying employee tasks and easier data analysis”; „In good reduction of time for access to services; avoiding queues in institutions - better traceability”, „the services will be faster and the queues at the counters will disappear”, “Easier access to public services (2)”, “Solving requests faster and time will be used more efficiently; “Time saving, because there is no need to waste time standing and waiting.”; “speed in solving problems, “accessibility from any corner of the world” Training Interest: Many adults’ express interest in digital training programs, emphasizing the importance of tailored initiatives for their age group
Engagement and Participation: Nine Students believe technology can enhance citizen engagement in decision-making processes, advocating for increased involvement in digital initiatives: “The citizens are more informed so they can make better decisions ”; “By making it more comfortable and easy for everyone .”, “Because it attracts more young citizens”, “For an example:	Participation and Digital Inclusion: Six adults are interested in participating in digital training courses or programs offered by public authorities, one is undecided and the remaining five do not want to. Adults believe that digital inclusion can be ensured for all segments of the population, including adults as follows: „Difficult to put into practice (2)”;“

1. Young Students' Perceptions	2. Adults' Perceptions
it's easier to vote from your home rather than going to vote at a certain building"; "Is easier to vote online than to get people together in one place."; "The technology helps people understand many things and learn new things", "The citizens are more informed so they can make better decisions". They believe that public authorities could more effectively involve young people in digital transformation projects as follows: "Just by asking them "; "To involve the students with major in It in different technological projects", "By appealing to the younger generation via targeted marketing", "to present through schools", "Simply by being more and more active"; "Young people are mostly attracted to digital world and they like working online so it wouldn't be hard to involve them", "They can motivate them ", "By hiring them", "To involve the students with major in It in different technological projects"	Personalized courses and trainings"; "Digital education"; "The adoption of simple and intuitive digital platforms with support on different operating systems. Their promotion in the online and media environment"; "unachievable"; "Introduction of a public identity system"; I think it would be best to organize courses by age category, because the younger generation understand faster and don't need so much time to get familiar with digital life."; "Quite difficult for people from rural areas - lack of schooling"; "through awareness and promotion activities".

Comparative Analysis

- **Optimism vs. Apprehension:** Young students are generally optimistic, emphasizing innovation, while older adults may harbour apprehensions but recognize potential benefits.
- **Digital Proficiency:** Young individuals exhibit higher digital proficiency, influencing their expectations and demands.
- **Inclusivity:** Both groups highlight the importance of inclusivity, albeit with different perspectives—young individuals focus on broadening participation, while older adults emphasize tailored accessibility.

Suggestions and Feedback of young's	Suggestions for making digital technology more adult-friendly
Suggestions proposed to make the digital services of the public administration more attractive for young people: "Make everything	"Simple and intuitive interfaces"; "Promoting digital literacy and providing continuous training"; "Simple and intuitive interfaces"; "Functionality and

<i>available online”; “To work harder”; “To make it with a better design”; “Friendly and engaging advertisements”; “Because they use technology more”; “Simply making them understand the importance”; “To be easy to access”; “To show them the benefits”; “Young people should be directly involved in the process”; “To make it with a better design”</i> Students provided feedback or recommendations for improving digital transformation processes in public administration: “Some processes are already digitalized, and it improves my interaction with the local authorities a lot easier. I wish it was more centralized and easier to find so that I am not required to visit multiple institutions for a simple process.”; “Not really, it is already going well”; “you should make every website or application accessible for every age category”; “I think that digital services should be also accessible to older people”, No answers= 5 students.	<i>consultancy”; “Dedicated and/or centralized applications for services”, “Explain the exact steps in a video”; “informing the population(2)”, “By activating some digital literacy programs with the help of young people (volunteering) and concrete work presentations on the programs.”; “The use of young people who master digital technology can come to the aid of institutions.”; “organization of free courses”; “clear, concise information in accessible language”</i> Advices for the public authorities to improve the adoption of digital technology among adults: “Rewards in the form of discounts”; “Rewards in the form of discounts”; “Training and communicating the advantages of adopting digital technology”; “Public information campaigns to ensure the population of safety, use, efficiency and the benefits that digitization brings them”; “a period to operate in parallel for the population to prepare”; “as much information as possible to the population (2)”; “Conducting digital training courses and guidance on operating programs.”, “To have more patience because, unfortunately, at the mayors, at ANAF, patience is very thin on the part of the employees. Handout and instructions. To organize courses for adults.”; “Education at all levels”
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CONCLUSION

This comparative analysis provides insights into the diverse perceptions of digital transformation in PA among young and adults. Tailoring digital initiatives to address specific needs, offering accessible training programs, and ensuring inclusivity are key considerations for fostering a holistic and effective transformation that serves citizens of all ages. Digital transformation in PA is a global movement aimed at leveraging technology to enhance government services. Understanding the perceptions of different demographic groups, particularly young and senior individuals, is crucial for tailoring initiatives to diverse needs. This study explores the perspectives of young students and older adults regarding digital transformation in public administration.

While optimistic, the students’ express concerns about data privacy and the potential exclusion of certain demographic groups. The main concerns or reservations that adults have about the adoption of digital technology in public administration are: „risks regarding the confidentiality of data and the quality of products/services”, “qualified personnel”;

”staff training with the adoption of digital technologies”; ”Lack of staff prepared for the transformation”; „The only doubt is that the users do not have the necessary training, they are faced with a new game for them”; ”In certain situations, citizens are not given the necessary training and that's why people don't have the courage to use it”; „not all people can use digital tools”; lack of concrete training measures for the population”.

Many young people see digital transformation as an opportunity for innovation and improvement in public administration. They believe that technology can bring efficiency, transparency, and better services for citizens.; appreciate digital solutions that make PA more accessible and user-friendly. The straightforward application of technology can increase citizen participation and facilitate interaction with government services. One important aspect for young people is data security. They are often aware of the risks associated with the collection and storage of personal data and seek guarantees regarding the protection of their information.

Young people value digital platforms that involve them in decision-making processes and provide opportunities to express their opinions and concerns. They see technology as a tool to make governance more participatory; recognize the importance of digital education among public officials and citizens. They believe that a solid understanding of technology is essential to fully realize the benefits of digital transformation, but they are often frustrated with bureaucracy and see digital transformation to reduce this issue. They desire more efficient and less complex administrative processes. Other concerns are that certain segments of the population, especially the less privileged, might face digital exclusion with too rapid a transformation. The students want to ensure that digital solutions are accessible to everyone.

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