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Digital Transformation of Romania's Public Administration in the European Context

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***Abstract*:** *The development of digital technologies, the expansion of data use, the automation of administrative processes, and the emergence of new forms of interaction among public institutions, citizens, and the business sector are significantly altering how public services are designed and delivered. This research aims to assess the evolution of digital infrastructure, digital public services, interoperability, citizen uptake of services, digital skills, and institutional capacity, all in the context of European trends. The research methodology relies on data available at both European and national levels, as well as on relevant academic literature regarding digital transformation in public administration. Where comparable data are available, the study utilises indicators from Eurostat, the European Commission, the OECD, and the World Bank. The findings indicate that the digital transformation of Romania's public administration is currently in a phase of institutional and infrastructural acceleration. This research serves as a resource for both academic researchers and public administration representatives—in Romania and beyond—to help intensify efforts toward the effective operationalisation of digital transformation, ultimately fostering a transparent, accessible, and efficient administration that serves the state, the business sector, and the citizens.*

Keywords: digital transformation; digitalization; public administration; digital skills.

JEL: H1; H7; M53.

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Introduction

Digital transformation represents one of the key avenues for modernising contemporary public administration (Androniceanu 2026; Pindo, 2026; Androniceanu, 2025; Katelo, 2024; Komarova *et al.*, 2024; Bannister & Connolly,

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2014). At the European Union level, the digital transformation of public administration is a significant component of the objectives set out in the Digital Decade 2030 policy program. Romania is undergoing a comprehensive digital transformation of the public sector, supported by both national resources and European funds. The European Commission's 2025 Digital Decade report highlights that Romania has continued to invest substantially in the digitalisation of public services. At the same time, the Commission recommends the continued allocation of resources to these services and the streamlining of the many existing projects, suggesting a need to shift from developing individual digital solutions to integrating them into a coherent ecosystem. This development is also significant from the perspective of OECD assessments. In its analysis of Romania, the OECD considers the country to be at a pivotal point in the transition from e-government to a more mature digital government model (Güler & Büyüközkan, 2023). The report highlights the progress achieved—including the development of the government cloud and national interoperability infrastructure—while simultaneously emphasising the need for a more coherent, user-centric, and integrated approach across the entire public sector (Haug and all., 2024). Consequently, the analysis of public administration digitalisation in Romania must move beyond the perspective that the mere existence of online platforms and services constitutes a sufficient measure of digital progress (Sobotová & Pollák, 2026; Kempeneer & Heylen, 2023). Digitalisation can be considered mature when the technological infrastructure is underpinned by interoperability, appropriate governance, digital skills, efficient data use, and services designed around user needs Zhang *et al.*, 2026). From this perspective, it becomes important to analyse the relationship between the availability of digital services and their actual use by citizens and the business sector (United Nations, 2024) and commercial activities in services (Kubičková *et al.*, 2026).

1. Conceptual framework for the digital transformation of public administration

The expansion of digital technologies in the public sector has led to the emergence and use of an increasing number of concepts, among which digitisation, digitalisation, e-government, digital governance, and digital transformation are the most frequently encountered (Dunleavy *et al.*, 2026a; 2026b; Štaffenová *et al.*, 2026; Szabóová & Kollár, 2026; Redkinaitė, 2026; Aluchna *et al*., 2025; Androniceanu 2025a; Androniceanu 2025b). Although these terms are sometimes used interchangeably, they denote different levels of the process of integrating digital technologies into public administration operations. Digitisation can be understood, in a narrow sense, as the process of converting information from an analogue format into a digital format (Zahra *et al*., 2026). Scanning a paper document and converting it into an electronic file is an example of digitisation. At this level, technology primarily alters the form in which information is stored and (Lee *et al.,* 2024). In public administration, this can include the introduction of electronic forms, online tax payments, the use of digital platforms for submitting applications, or the automation of specific administrative workflows (Eom, Lee, 2022; Escobar *et al*.,

2023). This distinction is crucial for analysing public administration in Romania. The mere availability of online services does not, in itself, demonstrate the existence of a mature digital transformation. Consequently, this research analyses the digitalisation of public administration as a multidimensional process encompassing infrastructure and digital service development, as well as process transformation, interoperability, data utilisation, digital skills, user-centricity, and institutional capacity (Androniceanu, Streimikiene, 2026; Androniceanu, Colesca, 2025; Mura & Stehlíková, 2025; Androniceanu, 2026; Mergel *et al.,* 2019). One of the fundamental shifts brought about by digital transformation is the move from an administration centred primarily on institutions and procedures to one focused on user needs (Matlala, 2025; Ndamase *et al*., 2026; Lukman *et al*., 2026; Vukethwele *et al*., 2026). A complementary perspective is provided by research on digital tourism services. Zouair *et al.* (2025) identified technology–task fit as a significant predictor of smart technology use among tourists in the UAE and Egypt, highlighting the relevance of aligning digital functionality with the tasks users need to perform. In a traditional administration, citizens must identify the relevant authority, understand the procedures, submit required documents, and often provide the same information to multiple institutions. In a mature digital administration, services are designed around user needs and life events (Mukonavanhu & Nel-Sanders, 2026; Gwiza, 2026; Chilunjika, 2025; Moser-Plautz & Schmidthuber, 2023). Interactions with the administration should involve as few steps as possible, and data already held by one institution should—subject to legal requirements—be accessible to other relevant authorities. Conceptually, however, the existence of such infrastructures is merely a necessary condition. Achieving digital maturity also depends on the actual level of usage, system integration, and the institutions' capacity to deliver coherent services ((Šindleryová *et al*., 2026). An advanced stage of digital transformation involves the development of proactive services, allowing the administration to anticipate user needs and provide services without requiring users to initiate an administrative procedure every time (Matambo, 2026). This model is closely linked to the "once-only" principle, whereby citizens should not have to repeatedly provide information and documents that the administration already holds and that institutions are authorised to use.

The OECD includes proactivity in its digital maturity assessment framework, defining it as the administration's ability to anticipate people's needs and respond rapidly, thereby reducing unnecessary administrative processes. Consequently, there is a conceptual evolution from: online information → online service → integrated service → user-centric service → proactive service. This progression will be significant in assessing the state of public administration digitalisation in Romania. To underpin the empirical analysis in this paper, the OECD Digital Government Policy Framework (DGPF) will be used as the primary conceptual reference. The OECD framework identifies six dimensions of digital government: (1) Digital by design – integrating a digital approach into the design of policies, processes, and services; (2) Data-driven public sector – using data as a strategic resource; (3) Government as a platform – developing common infrastructures, tools, and

components; (4) Open by default – promoting access to and the reuse of public data and processes, within legal limits; (5) User-driven – designing services based on user needs; (6) Proactiveness – anticipating needs and proactively delivering services.
The OECD also employs these six dimensions in its Digital Government Index to assess digital government maturity. The framework is suitable for this research because it allows assessment of digitalisation as a multidimensional phenomenon, rather than relying solely on indicators of the number of services available online. Based on the literature and the OECD framework, digital maturity can be conceptualised as the level at which a public administration possesses the institutional, technological, and organisational capacity to utilise digital technologies and data to deliver services that are integrated, accessible, user-centric, and—at an advanced stage—proactive. Digital maturity should not be confused with the degree of computerisation. An institution may have a high level of technology usage but a low level of digital maturity if systems are fragmented, data cannot be shared across institutions, services are difficult to access, or administrative processes have not been redesigned.

2. Research frame and methodology

The research aims to evaluate the state of digital transformation within Romania's public administration by analysing the evolution of digital infrastructure, digital public services, interoperability, citizen uptake of services, digital skills, and institutional capacity.
To achieve this general aim, the research pursues the following objectives:
O1. Analysing the evolution of public administration digitalisation in Romania during the 2020-2026 period;
O2. Assessing the level of digital skills and availability of digital public services;
O3. Analysing the extent to which citizens use digital public services;
O4. Identifying key advancements in digital infrastructure, government cloud, interoperability, and digital identity.
Based on the specialised literature and institutional reports analysed, the research proceeds from the following hypotheses: H1. The level of public administration digitalisation in Romania has shown positive development between 2020 and 2026; however, progress in infrastructure and the availability of digital services is not reflected to the same extent in their actual usage by citizens. H2. The level of digital public service usage is positively associated with the population's level of digital skills. H3. Romania shows significant differences compared to European Union member states with higher levels of digital governance maturity regarding service integration, user-centricity, and data usage. The primary contribution of this research is to provide an integrated assessment of the digitalisation of public administration in Romania. Moving beyond a purely descriptive approach, the study aims to distinguish between digital infrastructure development, service availability, actual service usage, and the level of institutional maturity required to achieve a digital public administration. To this end, the research seeks to construct a multidimensional picture of the digital transformation of Romanian public administration and to

identify the key gaps between technological development and the administration's capacity to leverage digital technologies for the delivery of integrated, accessible, and user-oriented services. This analysis is particularly relevant given that the digital transformation of public administration is an ongoing process. Consequently, the state of digitalisation in Romania must be evaluated not only based on results already achieved but also by the ability of public institutions to integrate infrastructure, data, technologies, and skills into a coherent digital governance system.

3. Empirical research on the state of digital transformation in public administration in Romania within the EU context

The empirical research aims to assess the state of digitalisation in Romania's public administration using a multidimensional approach. The analysis goes beyond the mere existence of online public services, examining the relationship between service availability, actual citizen usage, the population's digital skills, and the maturity of digital governance.

The primary period under analysis is 2020-2025; however, data available for 2026 is utilised when such data represents assessments published in 2026 that cover the 2023-2024 evaluation period. This distinction is significant because indicators are not always measured in the same year the report is published.

The main data sources are Eurostat, the European Commission, and the OECD. To analyse the availability of digital public services, the "Digital public services for citizens" indicator—measured on a scale of 0 to 100—is employed. This indicator measures the proportion of administrative steps associated with key life events that can be completed entirely online. Seven life events are analysed for citizens: family, career, education, health, transport, moving, and initiating small claims procedures.

To measure the actual use of digital public services, the Eurostat indicator regarding individuals who have used public authority websites or applications in the last 12 months is employed. Since 2022, the indicator has utilised a broader methodology based on interaction via websites and applications.

To assess the population's capacity to use digital services, the indicator regarding the share of individuals with at least basic digital skills is used. This indicator covers five areas: information and data literacy, communication and collaboration, digital content creation, safety, and problem-solving. As of 2021, the indicator's methodology was revised to align with the European DIGCOMP framework.

Complementing these indicators is the OECD Digital Government Index (DGI), which enables the assessment of the institutional dimensions of digital transformation: Digital by Design, Data-driven Public Sector, Government as a Platform, Open by Default, User-Driven, and Proactiveness. The OECD emphasises that the DGI measures not merely the digitisation of individual services, but the conditions and mechanisms required for a coherent, whole-of-government digital transformation. In this paper, digital maturity is analysed through a multidimensional perspective structured around the variables presented in Table 1.

Table 1. Research variables and research questions

Dimension/Variable	The fundamental question
Digital infrastructure	Is the necessary technological infrastructure in place?
Digital public services	Are services available online?
Interoperability	Can institutions and systems exchange and use data?
Data	Is data used as a strategic resource?
User-centricity	Are services designed around citizens' needs?
Digital skills	Is the human capacity for digital transformation available?
Institutional capacity	Are governance, leadership, and coordination in place?
Proactivity	Can the administration anticipate and respond to user needs?

Source: Authors' contribution, 2026

A primary indicator relevant for assessing the digitalisation of the administration is the availability of digital public services for citizens (Table 2).

Table 2. Evolution of the "Digital public services for citizens" indicator, Romania and the EU

Jear	Romania	EU-27	Romania–EU Gap
2020	44,37	74,93	-30,56
2021	44,24	74,63	-30,39
2022	47,58	77,03	-29,45
2023	52,18	79,44	-27,26
2024	62,75	82,32	-19,57
2025	62,70	82,30	-19,60

Note: The indicator expresses, on a scale of 0-100, the proportion of administrative steps that can be completed online. Values for 2020-2024 are reported in the Digital Decade/DESI series; for 2025, values from the Digital Decade 2025 report are used.

Source: Authors' contribution, 2026

The data highlight a positive trend in the availability of digital public services in Romania. The score rose from 44.37 in 2020 to 62.70 in 2025, representing an increase of approximately 18.3 points. However, this progress is insufficient to close the gap with the EU. The European average rose from 74.93 to approximately 82.30 during the same period. Consequently, while Romania has significantly narrowed the gap, a difference of approximately 19.6 points remains as of 2025. A key factor is the acceleration of Romania's progress after 2022. Between 2022 and 2024, the score increased by more than 15 points, compared to a rise of approximately 5 points in the EU average. This trend can be linked to the intensification of digitalisation projects—including those funded through the National Recovery and Resilience Plan—and the development of digital government infrastructure.

Consequently, the hypothesis that Romania has experienced positive progress in the digitalisation of public services is supported by the trend of the indicator. However, the analysis of this indicator does not yet allow for a conclusion regarding digital maturity, as the technical availability of services is not equivalent to their actual use. A fundamental issue in analysing the digitalisation of public administration is the gap between available services and those actually used. Table 3 highlights this aspect.

Table 3. Use of digital public services by the population

Year	Romania (%)	EU-27 (%)	Romania–EU difference (percentage points)
2023	23,0	69,3	-46,3
2024	25,3	70,0	-44,7
2025	24,1	71,9	-47,8

Note: The population analysed consists of persons aged 16-74. The indicator reflects the use of a public authority's website or application within the last 12 months.

Source: European Commission, 2024a, 2024b, 2025a, 2025b

The result is significant. In 2025, only 24.1% of individuals aged 16-74 in Romania reported using a public authority's website or app within the last 12 months, compared to 71.9% in the EU-27. Romania thus trails the European average by nearly 48 percentage points. Moreover, between 2024 and 2025, Romania's figure fell from 25.3% to 24.1%, while the EU average rose from 70.0% to 71.9%. This trend is crucial for interpreting hypothesis H1: the development of infrastructure and increased service availability do not automatically lead to a proportional rise in usage. The result suggests a gap between the digital services offered by the administration and the demand for—or actual use of—these services by citizens (Table 4).

Table 4. People with at least basic digital skills

Year	Romania (%)	EU-27 (%)	Gap Romania–EU
2021	27,82	53,92	-26,10
2023	27,73	55,56	-27,83
2025	31,84	60,40	-28,56

Source: Eurostat, 2026

Data shows that Romania's figure rose from 27.82% in 2021 to 31.84% in 2025. While this increase of approximately 4 percentage points is positive, the pace is insufficient to close the gap with the European average. In 2025, the EU average reached 60.4%, whereas Romania recorded 31.84%; Romania thus stands at roughly half the European level. Eurostat identifies Romania as the Member State with the lowest proportion of individuals possessing at least basic digital skills in 2025—approximately 32%—compared to the European target of 80% for 2030. This situation is significant for public administration, as a digital service cannot yield the expected results if a substantial segment of the population lacks the skills required to use it. Consequently, the results provide descriptive support for hypothesis H2;

however, actual statistical testing requires an analysis based on multiple observations—ideally across EU Member States for the same year (Table 5). The digitalisation of public administration must be analysed not only from the perspective of services provided to citizens but also regarding services aimed at organisations.

Table 5. Digital public services – citizens – organisations

Year	Romania citizens	EU citizens	Organisations - Romania	Organisations EU
2021	44,37	74,93	49,29	84,40
2022	47,58	77,03	44,61	83,73
2023	52,18	79,44	50,03	85,42
2024	62,75	82,32	55,14	86,23
2025	62,70	82,30	55,10	86,20

Source: European Commission, 2026. European Commission, Digital Decade/DESI.

The data highlight two aspects. First, services for citizens have seen more substantial growth in Romania, particularly after 2022. Second, digital services for organisations remain at a relatively low level. In 2025, Romania's score was approximately 55.1, compared to 86.2 at the EU level.

This result indicates that the digitalisation of public administration is not merely a matter of the administration-citizen relationship, but also one of competitiveness and the reduction of administrative costs for the business sector. The relevance of this business-facing dimension is also reflected in entrepreneurship research. An integrative review of 42 empirical studies identified limited digital capabilities, inadequate infrastructure and insufficient government support among the barriers to innovative entrepreneurship (Fitong Ketchiwou & Ngulube, 2025).

To move beyond the limitations of indicators regarding service availability and usage, the research employs the OECD Digital Government Index. In the 2025 edition of the DGI, published in 2026, Romania achieved an aggregate score of 0.24, compared to the OECD average of 0.70. The 2025 DGI data (Table 6) cover the period from January 1, 2023, to December 31, 2024.

Table 6. OECD Digital Government Index 2025 – Romania

Dimension	Romania	OECD Average
Digital by Design	0,49	0,75
Data-driven Public Sector	0,37	0,74
Government as a Platform	0,14	0,71
User-Driven	0,10	0,71
Proactiveness	0,06	0,67
Aggregate DGI	**0,24**	**0,70**

Source: Organisation for Economic Co-operation and Development, 2026 a,b. OECD, Digital Government Outlook 2026. The 2025 DGI data refer to the 2023-2024 period.

The results are significant as they highlight a disparity between technical/structural components and those related to user orientation and process transformation. Among the dimensions presented, Romania records its highest scores for "Digital by Design" (0.49) and "Data-driven Public Sector" (0.37). In contrast, the scores for "Government as a Platform" (0.14), "User-Driven" (0.10), and "Proactiveness" (0.06) are considerably lower. The OECD explicitly highlights these gaps. This distribution of results is relevant to the research's central hypothesis, suggesting that Romania's challenge cannot be reduced to a lack of technology. A significant portion of the digitalisation infrastructure and mechanisms is already in place, yet integration, user orientation, and proactiveness remain less developed dimensions. Consequently, the OECD data support the conceptualisation of digital maturity employed in this study: digital maturity extends beyond the mere availability of online services. Another relevant indicator for analysing digital transformation is the use of digital identity. In September 2024, Romania notified an eID scheme with a substantial level of assurance, known as ROeID. However, data analysed by the European Commission indicated that only 1.6% of people in Romania had used electronic identity to access public services in the preceding 12 months, compared to 35.8% at the EU level (Foeldi, 2026). This discrepancy serves as a pertinent example of the gap between the existence of infrastructure and its actual adoption by the population. At the same time, Romania is developing the infrastructure required for the automated exchange of documents and data and for the interoperability of public services. The development of the Government Cloud and the legislative framework regarding interoperability are key components of this transformation. Therefore, interoperability must be viewed as an intermediate variable between digital infrastructure and the provision of integrated public services. The existence of multiple independent platforms is insufficient if they do not enable the efficient and lawful exchange of data. Regarding 2026, the latest official data indicate that Romania has made visible progress in the digital transformation of public administration (Tables 7 and 8); however, the digitalisation of infrastructure and services is advancing more rapidly than actual uptake by citizens and the interoperability of the administration. A methodological clarification is important: the 2026 European Commission report relies primarily on data measured in 2025;

thus, "Romania's results in 2026" should be interpreted as the most recent statistical snapshot available in 2026.

Table 7. Key indicators for Romania in 2026

Indicator	**Romania**	**EU-27**	**Evolution**
Digital public services for citizens	**63/100**	82/100	48 → 52 → **63**
Digital public services for businesses	**55/100**	86/100	45 → 50 → **55**
Access to electronic health records	**75/100**	83/100	57 → 59 → **75**
E-government users	**25%**	76%	very low
People who have used eID for public services	**<5%**	46%	very low
Pre-filled forms for life events	**27%**	—	low level

Source: European Commission, 2026

Table 8. Summary of Romania's key indicators compared to EU states

Dimension	**Romania**	**UE/OECD**	**Interpretation**
Digital public services for citizens, 2025	62,7/100	82,3/100 EU	Significant progress, but a persistent gap
Use of digital public services, 2025	24,1%	71,9% EU	Very wide usage gap
Basic digital skills, 2025	31,8%	60,4% EU	Significant skills gap
Digital services for businesses, 2025	55,1/100	86,2/100 EU	Insufficient digitalization compared to the EU
OECD DGI 2025	0,24	0,70 OECD	Low institutional digital maturity
Digital by Design	0,49	0,75 OECD	Relatively more developed component
User-Driven	0,10	0,71 OECD	Low user orientation
Proactiveness	0,06	0,67 OECD	Low level of proactive services

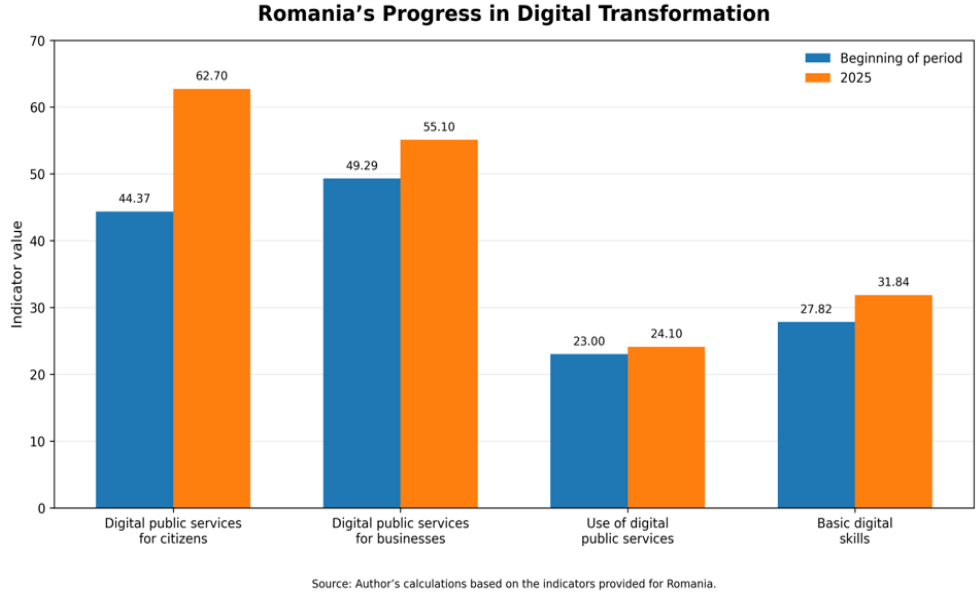
Source: European Commission, 2025 a,b;
Organisation for Economic Cooperation and Development, 2026 a,b)

As the indicators show, digital public services have improved. This is an area where one of the clearest positive trends is evident. The indicator for digital services for citizens rose from 48 in 2023 to 52 in 2024 and 63 in 2025. However, the EU average stood at 82, and the target for 2030 is 100. For businesses, Romania scored 55, compared to 86 for the EU. Thus, while the pace of digitalisation is positive, the gap relative to the European average remains significant. The major issue lies in the use of digital services; the situation here is far more problematic. Only 25% of Romanians have used e-government services, compared to 76% in the EU. Furthermore, approximately one in five people state that they have never used digital public services—the highest proportion in the EU. A particularly interesting finding from this research is that the mere digitisation of service availability is not equivalent

to the actual digital transformation of the administration. 71% of people feel that the administration repeatedly requests the same personal data from them, and only 27% of forms for key life events come pre-filled. The European Commission recommends that Romania develop a unified public cloud ecosystem, strengthen interoperability, and effectively implement the "once-only" principle—ensuring citizens are not required to resubmit information the administration already holds. In 2026, Romania has major investments underway in: government Cloud; migration of applications and IT systems to the cloud; automation of public administration processes; national interoperability platform; digitisation of public services; ROeID; ROePAS – single access point for digital public services. The beta version of ROePAS—designed as a centralised access point for information, procedures, and electronic public services—was launched in March 2026. Additionally, the ADR (Authority for the Digitalisation of Romania) announced the completion of the government cloud infrastructure project in September 2026. The European Commission estimates that €4.5 billion from Romania's National Recovery and Resilience Plan contributes to digital transformation, with approximately €3.2 billion in cohesion funds also supporting this process. Thus, Romania's primary challenge regarding digitalisation is not a lack of funding, but rather the transformation of investments into integrated, interoperable, and effectively utilised services. OECD data published in 2026 are highly relevant to this research, revealing that Romania holds a score of 0.24 on the Digital Government Index, compared to the OECD average of 0.70. However, this represents a 0.04 increase since 2023. The strongest dimensions are "Digital by Design" (0.49) and "Data-driven Public Sector" (0.37). Conversely, other scores are problematic: "Proactiveness" (0.06), "User-Driven" (0.10), and "Government as a Platform" (0.14). This structure is highly relevant: Romania has begun building digital infrastructure and mechanisms but has not yet fully transitioned to a proactive, user-centric, and government-wide integrated administration. However, a very positive result is evident in the area of open data: Romania scores 0.59 on the OECD OURdata Index—surpassing the OECD average of 0.53—with a score of 0.85 for data accessibility. Empirical analysis highlights that the digitalisation of Romania's public administration is an ongoing process, characterised by a significant increase in the availability of digital services and by investments in shared infrastructure, interoperability, and digital identity. Nevertheless, data indicate that progress in infrastructure and service availability is not yet proportionally reflected in user behaviour. In 2025, the gap between Romania and the EU regarding the use of public authority websites and applications stood at nearly 48 percentage points. At the same time, the population's level of digital skills acts as a significant constraint on the wider adoption of digital public services. In 2025, 31.84% of people in Romania possessed at least basic digital skills, compared to 60.40% in the EU-27. The OECD assessment adds an important institutional dimension. The DGI score of 0.24—compared to the OECD average of 0.70—as well as the low values for "User-Driven" and "Proactiveness" indicators, suggest that the next stage of digital transformation lies not merely in developing new platforms, but in integrating systems, redesigning processes, and orienting services toward user needs (OECD, 2024). Consequently,

the research supports the view that the state of public administration digitalisation in Romania must be evaluated by distinguishing between technical digitalisation and institutional digital transformation. While Romania has made significant progress in infrastructure development and service availability, substantial gaps remain regarding usage, digital skills, integration, user-centricity, and proactive service delivery. The statistical analysis was conducted across three levels: evolution over time, the gap between Romania and the EU, and the relationship between service availability, usage, and digital skills. Recent data clearly support this perspective: in 2025, only 24.1% of Romanians aged 16-74 had used a public authority website or app in the previous 12 months, compared to 71.9% in the EU. At the same time, only about 32% of Romanians possessed at least basic digital skills, compared to 60% in the EU. For Romania, the available data series already allows for the identification of several significant results. Figure 1 immediately shows that: digital public services for citizens recorded the largest increase (+18.33 percentage points); digital public services for businesses grew by +5.81 p.p.; basic digital skills advanced by +4.02 p.p.; and the actual use of digital public services saw a much more modest increase of only +1.1 p.p. Romania appears to have made faster progress in the provision of digital services than in their uptake by the population.

Figure 1. Romania's progress in digital transformation

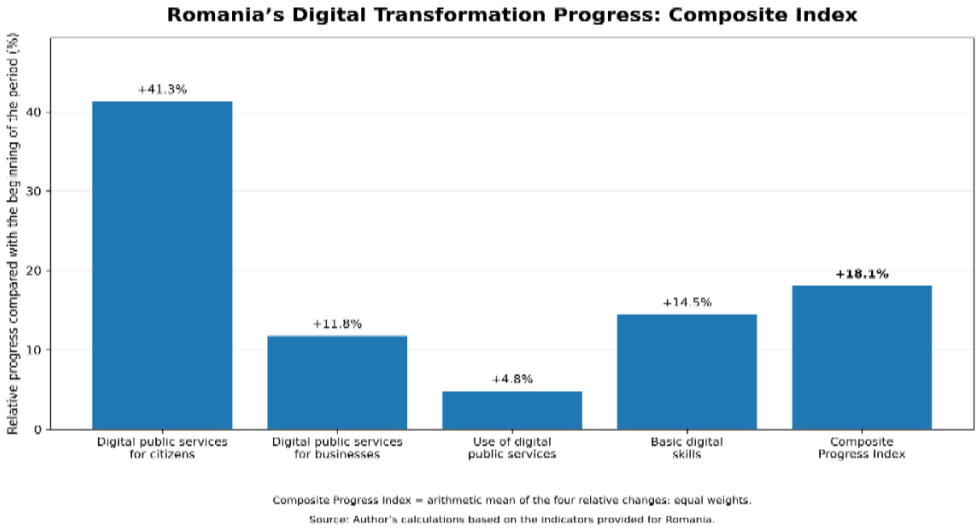


Source: Authors' contribution, 2026

These results point to a very interesting phenomenon: the infrastructure and availability of digital services have progressed more rapidly than their actual use by the population. For example, the indicator for digital public services for citizens rose by approximately 41.3% in relative terms between 2021 and 2025, whereas actual

usage by citizens increased by only about 4.8% between 2023 and 2025. At the same time, the Romania–EU gap in 2025 stands at: approximately 19.6 points for digital services for citizens; 47.8 percentage points for digital service usage; and approximately 28.6 percentage points for digital skills. Furthermore, the OECD offers a complementary institutional perspective: Romania has a DGI score of 0.24, compared to the OECD average of 0.70. The lowest-scoring dimensions are Proactiveness (0.06), User-Driven (0.10), and Government as a Platform (0.14). Based on this data, we calculated a composite index for Romania, shown in Figure 2.

Figure 2. Composite index of Digital Transformation Progress for Romania



Source: Authors' contribution, 2026

Rezultatul sintetic este de +18,1%**,** calculat ca media aritmetică a celor patru creșteri relative, cu ponderi egale. The composite Digital Transformation Progress Index indicates an overall relative improvement of approximately 18.1% in Romania's digital transformation performance over the analyzed period. This result suggests a moderate and uneven advancement across the selected dimensions of digital transformation. The greatest improvement was recorded in digital public services for citizens (+41.3%), followed by basic digital skills (+14.5%) and digital public services for businesses (+11.8%). By contrast, the relative increase in the use of digital public services was considerably lower (+4.8%).

The composite result therefore indicates that Romania has made more substantial progress in expanding and improving the supply of digital public services than in ensuring their effective adoption and use by citizens**.** This discrepancy is particularly relevant from a public policy perspective, as the digital transformation of public administration cannot be assessed solely through the availability or quality of digital services. Their impact also depends on citizens' digital skills, accessibility, awareness and willingness to use them. Evidence from the Czech hospitality sector

illustrates how digital service preferences can vary across user groups: younger travellers favoured mobile applications and online communication, whereas older travellers preferred telephone or email (Křečková *et al.*, 2025). This cross-sectoral comparison suggests that digital inclusion policies should consider differentiated user needs rather than assume a uniform approach to service delivery.

Overall, the composite index provides evidence of a positive but unbalanced trajectory of digital transformation in Romania**.** The results suggest that future policy interventions should place greater emphasis on stimulating the demand and effective use of digital public services, while continuing to strengthen digital skills and digitalisation within the business sector.

4. Conclusions

The main conclusion of this research is that, in 2026, the digital transformation of public administration in Romania is in a phase of institutional and infrastructural acceleration, characterised by increased availability of digital public services and significant investments in government cloud, digital identity, and interoperability, yet also by a persistent gap between the digital services offered and their actual use by citizens. Romania has progressed from "service digitization" to "building the infrastructure for digital administration," but has not yet achieved a mature digital transformation characterised by full interoperability, proactive services, and user-centric administration. The empirical findings allow for the identification of four key trends (World Bank, 2022).

The first trend is the increased availability of digital public services. The score for services aimed at citizens rose from approximately 44 in 2020 to around 63 in 2025. Romania has thus narrowed the gap with the EU to some extent.

The second trend is the continued low level of actual usage. In 2025, only 24.1% of people aged 16-74 in Romania used public authority websites or apps, compared to 71.9% in the EU.

The third trend is the low level of digital skills. In 2025, 31.84% of people aged 16-74 in Romania possessed at least basic digital skills, compared to 60.4% in the EU.

The fourth trend is the disparity between the technological and organisational dimensions of digital transformation. OECD results indicate relatively higher scores for "Digital by Design" and "Data-driven Public Sector," but much lower values for "User-Driven," "Government as a Platform," and "Proactiveness."

The results obtained in relation to the research hypotheses indicate the following:

H1 is validated at a descriptive level. The data show a clear increase in the availability of digital public services in Romania. However, this growth is not accompanied by a proportional increase in citizen usage. Consequently, there are clear indications of a gap between digital supply and actual usage.

H2 is validated theoretically and descriptively but requires statistical testing. Romania simultaneously exhibits low levels of digital skills and usage of digital public services. To validate the hypothesis, however, a statistical analysis based on a sufficient set of observations—such as EU member states for 2025—must be conducted. H3 is validated conceptually and by institutional literature but requires

further empirical testing. Available data indicate that interoperability and shared infrastructures are key elements of digital transformation. However, verifying the statistical relationship between interoperability and digital maturity requires the development of a set of comparable indicators. Romania can no longer be characterised solely by a deficit in the digitalisation of public service provision. The issue is increasingly shifting toward the digital system's capacity to translate technological availability into actual usage, accessibility, trust, and value for the citizen.

Although the research presents interesting results, it has several limitations: (1) it is an empirical study with a limited number of variables; (2) it lacks an in-depth statistical analysis; and (3) the correlational approach has inherent limitations. These and other limitations will be addressed in future research.

Conflict of Interest Statement

The author declares that the research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.

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References

Aluchna, M., Bosek-Rak, D., Kamiński, B., & Kaszyński, D. (2025). Digital ambidexterity and financial performance in times of COVID-19 pandemic. the case of companies listed on Warsaw stock exchange. *Polish Journal of Management Studies, 32*(2), 23-38. https://doi.org/10.17512/pjms.2025.32.2.02

Androniceanu, A. (2025a). The impact of artificial intelligence on human resources processes in public administration. *Administratie si Management Public*, 44, 75-93. https://doi.org/10.24818/amp/2025.44-05

Androniceanu, A. (2025b). The transformative impact of artificial intelligence on urban development: a new integrative conceptual model. *Management Research and Practice, 17*(3), September, 5-16. WOS:001573012700001

Androniceanu, A., & Colesca, S.E. (2025). Triple Helix Model and Artificial Intelligence in Public Administration. *Central European Public Administration Review, 23*(2), 63-91. https://doi.org/10.17573/cepar.2025.2.03

Androniceanu, A., & Streimikiene, D. (2025). Reinventing public managers in the digital age: competencies and innovative governance models across the European Union. *Administratie si Management Public,* 45, 69-90. https://doi.org/10.24818/amp/2025.45-04

Androniceanu, M. (2026). Artificial intelligence–based invoice technologies in modern organizations. *Management Research and Practice, 18*(1), March, 27-42.

Androniceanu, M. (2025). Efficiency and prediction in human resource management using Python modules. *Theoretical and Empirical Researches in Urban Management*, 20(1), February, 88-103.

Bannister, F., & Connolly, R. (2014). ICT, public values and transformative government: A framework and programme for research. *Government Information Quarterly, 31*(1), 119–128. https://doi.org/10.1016/j.giq.2013.06.002

Chilunjika, A. (2025). Exploring the challenges and complexities of E-government operationalisation in Lesotho. *Insights into Regional Development,* 7(4), 189-202. https://doi.org/10.70132/m6293726784

Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2006a). Digital era governance: IT corporations, the state, and e-government. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199296194.001.0001

Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2006b). New public management is dead—Long live digital-era governance. *Journal of Public Administration Research and Theory, 16*(3), 467-494. https://doi.org/10.1093/jopart/mui057

Eom, S.-J., & Lee, J. (2022). Digital government transformation in turbulent times: Responses, challenges, and future direction. *Government Information Quarterly, 39*(2), 101690. https://doi.org/10.1016/j.giq.2022.101690

Escobar, F., Almeida, W. H. C., & Varajão, J. (2023). Digital transformation success in the public sector: A systematic literature review of cases, processes, and success factors. Information Polity, 28(1), 61-81. https://doi.org/10.3233/IP-211518

European Commission. (2026). Romania's 2026 Digital Decade Country Report. European Commission.

European Commission. (2025a). Romania 2025 Digital Decade Country Report. European Commission.

European Commission. (2025b). State of the Digital Decade 2025 report. European Commission.

European Commission. (2024a). eGovernment benchmark 2024: Advancing pillars in digital public service delivery—Insight report. Publications Office of the European Union. https://doi.org/10.2759/0684

European Commission. (2024b). Romania 2024 Digital Decade Country Report. European Commission.

Fitong Ketchiwou, G., & Ngulube, P. (2025). Challenges of innovative entrepreneurship in a technological era: An integrative review. *International Journal of Entrepreneurial Knowledge, 13*(1), 23-42. https://doi.org/10.37335/ijek.v13i1.276

Foeldi, N. (2026). Why digital public service reform remains uneven in the EU: Comparing Germany and Romania. Transforming Government: People, Process and Policy, 1-16. https://doi.org/10.1108/TG-04-2026-0181

Güler, M., & Büyüközkan, G. (2023). A survey of digital government: Science mapping approach, application areas, and future directions. *Systems, 11*(12), 563. https://doi.org/10.3390/systems11120563

Gwiza, A. (2026). Role of trust and value creation in public governance via lenses of public value theory. *Insights into Regional Development,* 8(2), 121-135. https://doi.org/10.70132/q2974752273

Haug, N., Dan, S., & Mergel, I. (2024). Digitally-induced change in the public sector: A systematic review and research agenda. *Public Management Review, 26*(7), 1963-1987. https://doi.org/10.1080/14719037.2023.2234917

Katelo, I. (2024). Public administration and public services analysis and development trends: a review. *Entrepreneurship and Sustainability Issues,* 12(1). 195-208. https://doi.org/10.9770/jesi.2024.12.1(14)

Kempeneer, S., & Heylen, F. (2023). Virtual state, where are you? A literature review, framework and agenda for failed digital transformation. *Big Data & Society, 10*(1). https://doi.org/10.1177/20539517231160528

Komarova, V., Kudiņš, J., Sannikova, A., Čižo, E., Ruža, O., Kokarēviča, A., & Zeibote, Z. (2024). Using artificial intelligence (AI) for local territorial development: data-based machine diagnostics of Latvian municipalities. *Entrepreneurship and Sustainability Issues,* 12(2), 443-459. https://doi.org/10.9770/y3784695648

Křečková, R., Šálková, D., Procházková, R., & Trnka, R. (2025). Determinants of accommodation choice on digital platforms: Price, cleanliness, and trust. *Journal of Tourism and Services, 16*(31), 173-194. https://doi.org/10.29036/s08nkw26

Kubičková, V., Mura, L., Halenárová, M., & Chaloupková Košlíková, P. (2026). A New Methodological Approach to Assessing the Potential of Spa Tourism. *Journal of Tourism and Services, 17*(32), 223-245. https://doi.org/10.29036/7wkj4c42

Lee, J.-Y., Kim, B., & Yoon, S.-H. (2024). A conceptual digital policy framework via mixed-methods approach: Navigating public value for value-driven digital transformation. *Government Information Quarterly, 41*(3), 101961. https://doi.org/10.1016/j.giq.2024.101961

Lukman, Y., & Ndamase, M. (2026). Public participation deficits and governance challenges in local government. *Insights into Regional Development,* 8(1), 120-138.

Matambo, M. (2026). Countering land fraud through digital conveyancing reforms: insights from Kenya's Ardhisasa for Zimbabwe. *Insights into Regional Development,* 8(1), 189-201. https://doi.org/10.70132/b8353686595

Matlala, L. S. (2025). E-governance in South Africa: barriers and enablers of virtual evaluation in the public sector. *Insights into Regional Development* 7(2), 84-108. https://doi.org/10.70132/d9854558432

Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. *Government Information Quarterly, 36*(4), 101385. https://doi.org/10.1016/j.giq.2019.06.002

Moser-Plautz, B., & Schmidthuber, L. (2023). Digital government transformation as an organizational response to the COVID-19 pandemic. *Government Information Quarterly, 40*(3), 101815. https://doi.org/10.1016/j.giq.2023.101815

Mukonavanhu, T., & Nel-Sanders, D. (2026). Decision-making processes with focus on water demand planning. *Insights into Regional Development,* 8(2), 66-81. https://doi.org/10.70132/m3538249878

Mura, L., & Stehlíková, B., (2025). The ethics of artificial intelligence: Safeguarding human dignity, social justice and environmental stability in the age of AI. Equilibrium. *Quarterly Journal of Economics and Economic Policy, 20*(2), 479-507. https://doi.org/10.24136/eq.3743

Ndamase, M., Ntando, Y., & Ncama, T. (2026). Importance of moral public service delivery in the age of artificial intelligence. *Insights into Regional Development,* 8(1), 91-103. https://doi.org/10.70132/g4988794968

Organisation for Economic Co-operation and Development. (2024). 2023 OECD digital government index: Results and key findings. OECD Publishing. https://doi.org/10.1787/1a89ed5e-en

Organisation for Economic Co-operation and Development. (2026a). Digital government outlook 2026: From foundations to transformational impact. OECD Publishing. https://doi.org/10.1787/0496b2bc-en

Organisation for Economic Co-operation and Development. (2026b). Digital government outlook 2026: Romania. OECD Publishing.

Pindo, A. (2026). Digital governance for improving service delivery and municipalities' accountability: context of South Africa. *Insights into Regional Development*, 8(2), 82-94. https://doi.org/10.70132/r5484699273

Redkinaitė, B. (2026). The impact of sustainable finance on a country's economic performance. *Transformations and Sustainability, 2*(2), 167-179. https://doi.org/10.63775/3kfb9t91

Scholta, H., & Lindgren, I. (2023). Proactivity in digital public services: A conceptual analysis. *Government Information Quarterly, 40*(3), 101832. https://doi.org/10.1016/j.giq.2023.101832

Šindleryová, I. B., Chuťka, L., Turčan, K., & Machyniak, J. (2026). AI readiness for sustainable development: Europe's regulatory burden and the gaps in innovation and cybersecurity. *Entrepreneurship and Sustainability* Issues, 14(1), 223-240. https://doi.org/10.9770/p3545922549

Sobotová, R., & Pollák, F. (2026). Conceptual foundations of authencity and reputation management of generative AI tools in the context of accelerated digitalization. *Polish Journal of Management Studies, 33*(1), 198-211. https://doi.org/10.17512/pjms.2026.33.1.12

Štaffenová, N., Kucharčíková, A., & Tokarčíková, E. (2026). Integrating industry 4.0 technologies into human capital management: a conceptual framework. *Entrepreneurship and Sustainability Issues,* 14(1), 340-353. https://doi.org/10.9770/r5458572537

Szabóová, D., & Kollár, V. (2026). The impact of Big Data and AI on innovation management processes. *Entrepreneurship and Sustainability Issues,* 14(1), 408-422. https://doi.org/10.9770/b5575887322

United Nations. (2024). United Nations e-government survey 2024: Accelerating digital transformation for sustainable development, with the addendum on artificial intelligence. United Nations Department of Economic and Social Affairs.

Zahra, N., Manthar , S., & Anwar, R. S. (2026). Innovative work behaviors in the digital age: The influence of organizational structures and processes. *Transformations and Sustainability*, *2*(1), 12-40. https://doi.org/10.63775/gncn5x84

Zhang, C., Čižo, E., Yang, Z., Danileviča, A., Boļakova, I., Komarova, V., & Qi, J. (2026). Current trends in the adoption of AI technologies in small and medium-sized enterprises in the European Union. *Entrepreneurship and Sustainability Issues,* 13(4), 152-169. https://doi.org/10.9770/k2928634357

Zouair, N., Abou-Shouk, M., Idriz, M., & Okleh, I. (2025). The impact of smart technologies on innovative tourist memorable experience and revisit intention: The mediation of technology-task fit. *Journal of Tourism and Services, 16*(31), 27-45. https://doi.org/10.29036/tkk4ah55

World Bank. (2022). GovTech maturity index 2022 update: Trends in public sector digital transformation. World Bank.