

Editorial

*Edited by **Luigi Fiorentino*** and **Elisa Pintus*****

Will artificial intelligence be the most powerful accelerator of innovation in public institutions?

* *Office of the Chairman of the Council of Ministers*

** *University Aosta Valley*

Artificial intelligence (Ai) is emerging as the most powerful lever for transforming public institutions since the advent of administrative It.

For the first time, a technology is not limited to automating processes or speeding up procedures but is entering the “cognitive heart” of public administration (Pa) operations. This challenge, emblematically, reveals that Ai is not a simple technical tool: it is a new player in the institutional ecosystem, capable of analyzing complex phenomena, predicting scenarios, generating recommendations, and supporting decisions that previously required significantly long lead times, intensive human labor, and often unavailable analytical and technical capabilities. Ai does not introduce a “new technique”, but a “new logic” (Floridi, 2018) of decision-making. And, in public institutions, decision-making processes are at the core of the ability to design, implement, and govern change.

Pa at all levels of government, traditionally based on procedural linearity and document analysis, now find themselves able to operate with algorithmic infrastructures capable of processing millions of data points in a matter of seconds, to give an example of what Ai can translate into action. This revolution opens enormous possibilities: personalizing services, anticipating social needs, allocating resources more efficiently, reducing waste, combating fraud, improving transparency and internal control.

We are witnessing a historic moment in which technology is simultaneously redefining the scope of administrative

possibilities, the nature of public decision-making, and even, we dare say, the form of the essential pact between institutions and citizens that defines the mission of public institutions.

Artificial intelligence (Ai), in all its forms – from predictive systems to linguistic models, from automatic classification algorithms to decision-making engines – represents precisely this today: a paradigm shift.

It is not simply an additional tool, nor an extension of the digitalization processes that began in the late twentieth century. Rather, it is the arrival of a new “cognitive agent” at the heart of administration, an actor that processes information, produces analyses, formulates recommendations, and guides decisions. No recent innovation has come close to matching the transformative power that Ai can bring to the public sector.

What makes this change so significant is not only its technical scope, but its ability to alter the very nature of public governance. Public administrations are institutions that, to function, must have an information infrastructure that adapts to them (Margetts, 2022). We could provocatively argue that, if the infrastructure changes, the institution itself changes.

Ai, in this respect, is a cognitive infrastructure that enters routine decision-making, the sorting of citizen requests, the analysis of policies, the monitoring of social phenomena, the management of revenue, the processing of risks, and the way performance is measured. Today, no administrative area is immune to the possibility of being modified, streamlined, modernized,

and innovated, perhaps even transformed, by artificial intelligence.

Existing cases of its application in public administration demonstrate that Ai, if governed with human responsibility and oversight, can radically redefine the effectiveness of public action and the way the Government generates public value. That Ai can become the most powerful accelerator of innovation in public institutions is not an optimistic prediction: this is already evident from observing the first applications in Italy, Europe, and Oecd countries. In Italy, the National Social Security Institution (Inps) uses algorithms to detect anomalies in applications and analyses flows; the Revenue Agency makes advanced use of Ai-based risk systems to identify hidden patterns of tax evasion. In the judicial system, predictive analytics contribute to the estimation of trial times, while in regional administrations and local health authorities, Ai supports the definition of healthcare needs thanks to predictive models that analyze thousands of variables. These are examples that, while still in their development phase, clearly demonstrate the transformative potential of Ai.

At the European level, organizations such as Frontex and Eu-Lisa are already using advanced forms of Ai to analyze operational data.

Among Oecd countries, Canada has formalized the Algorithmic Impact Assessment, while the United Kingdom has established an independent center for the ethical oversight of automated systems. Estonia and Finland have developed Ai

systems as public service infrastructure, integrated into administrative processes.

Ai enables the transition from reactive to predictive public institutions, from document-based to data-driven processes, from uniform to contextualized decisions, from slow and sequential bureaucracies to bureaucracies capable of rapidly reconfiguring themselves.

Yet, the promise of Ai is not without its uncertainties. Public institutions, by their very nature, govern collective interests, produce rights, allocate resources, influence social balances, and define essential performance levels. The adoption of algorithmic systems is a political act before it is a technological one (Floridi, 2018). Algorithms are not neutral objects: they reflect choices, values, prejudices, and historical data that embody systemic discrimination. The 2022 Dutch case (Children's Subsidy Scandal in the Netherlands, Institutional Racism, and Algorithms – 2022 Eu Parliamentary Question), where an anti-fraud algorithm led to large-scale injustices, dramatically demonstrates this.

Ai, therefore, if adopted without real public planning and governance, can become an accelerator, yes, but of errors, biases, exclusions, and inequalities. It can “trigger” counteractions, cultural, managerial, and operational resistance.

The central question, therefore, is not whether Ai will accelerate innovation in public administration – because this is an unavoidable process – but what trajectory it will take, or rather, what it will be possible to take. To transform Ai into the most

powerful ally of institutional innovation, administrations must govern it with competence, responsibility, and true, holistic predictive action.

The acceleration is already underway. Ai allows for faster administrative processes, reduced staff workloads, the rapid processing of previously unimaginable numbers of requests, the detection of anomalies that public employees could not detect and identify, and the instantaneous development of complex scenarios. Furthermore, and this is undoubtedly an area that reflects the complementary relationship between Ai and Pa, in public policies, Ai paves the way for evidence-based decision-making models: healthcare demand forecasts, budget simulations, advanced analyses of migration flows, and predictive regulatory impact assessments. There is nothing more innovative, yet also more necessary and equitable, than supporting evidence-based decision-making models. It can be said that Ai, by enhancing the disruptive approach to public decision-making in the past, becomes the true link with corporate management models of public institutions: the creation of value attentive to cost-effectiveness, legality, and fairness is achieved by virtue of evidence-based decision-making models thanks to Ai.

Italy now possesses a historic opportunity. The National Recovery and Resilience Plan (Nrrp) has made it possible to invest in digital infrastructure, data space, and interoperability, creating the foundation for integrating Ai on a large scale. But for this acceleration to truly produce public value, three dimensions must be addressed: data quality, technical governance, and the

administrative and managerial capacity of officials and managers. Without interoperable data, AI is reduced to a set of local experiments. Without governance and compliance, it risks becoming a gray area of algorithmic power. Without administrative and managerial capacity – training, skills, vision – it becomes yet another challenge faced and then lost by public institutions in the twentieth century.

Public innovation accelerated by Ai must also address its impact on society. Public authorities that adopt algorithmic systems must ensure transparency, human oversight, and accountability. It is unacceptable for a citizen to receive an automated decision without being able to understand the underlying process. Ai must reduce imbalances, not amplify them.

This is why artificial intelligence, if well-governed, can become the most powerful accelerator of institutional innovation: it can strengthen rights, improve services, reduce inequalities, and make the Government more present, more capable, and more just. But if poorly governed, it can become an accelerator of fragility, information asymmetries, procedural opacity, and systemic discrimination.

Ultimately, Ai will not replace public institutions but will transform them. It will be an accelerator, but the direction of that acceleration will depend on the quality of governance. Italian and European administrations today could lead the transition towards a reliable, transparent, and inclusive public Ai model. It's not a technical issue: it's a question of vision, responsibility, and of public trust. Ai can become the

cognitive infrastructure that will allow institutions to address the challenges of the 21st century – in all sectors of public service delivery, without exception, but also in decision-making and production processes – with unprecedented capacity for analysis and intervention. But this will require public management capable of accepting the challenge, understanding the technology, assessing its impacts, managing its risks, and directing its use toward the general interest of society.

Will artificial intelligence be the most powerful accelerator of innovation in public institutions? The answer is yes, but only if public institutions learn to govern it with profound attention to ethical values, the mission they embody, listening to society's real needs, and the ability to play an innovative and predictive role.

“What impact will advanced digital infrastructures or artificial intelligence systems have (and are having!) on a complex system such as public administration? Will they help us make administrations more efficient? Will their actions be less cumbersome?”. These questions open the editorial of the previous issue, which this one continues, due to the shared call for papers, offering new and additional, equally innovative, research and study frameworks.

In this regard, the first contribution in the “Special Focus” section, titled “The challenge of artificial intelligence in the new Public Contracts Code: between advantages and risks in the use of algorithms and the human element in automated procedures”, focuses on the life cycle of public contracts and begins with an analysis

(of the content and scope) of Article 30 of Legislative Decree 36/2023, which “represents one of the first pieces of the mosaic of the discipline of artificial intelligence”. After examining the concept of algorithms, highlighting the difference between traditional and learning algorithms, and reviewing the evolution of case law regarding their use in public administration activities, identifying the advantages and risks of automating administrative decisions, the author (Giachetti Fantini) outlines some operational perspectives, also in light of the Artificial Intelligence Act and Bill No. 1146 approved by the Council of Ministers, delegating Ai to the Government. Therefore, “the use, even on an experimental basis, of artificial intelligence systems in the public procurement sector can provide a valuable vantage point for observing the innovation processes underway in public administrations”.

As clarified in the editorial, RIPM, in defining its thematic focus, intended to refer “not only to the central government” but to the entire public system, “including public administrations at every level of institutional action”.

The second article in the Special Focus, titled “Innovation, Digitalization, and Artificial Intelligence: The Use of New Technologies to Support Public Administration, with a focus on the Cap”, focuses on the controls and monitoring of the Common Agricultural Policy, which “represents over a third of the Eu budget”. After an overview of technological innovation in public administration, which considers the developments related to the Digital Administration Code and

the National Recovery and Resilience Plan (Nrrp), the article presents the general aspects and main functions of artificial intelligence systems, algorithms, and big data, “toward a robotic administrative activity”, highlighting their potential, risks, and challenges. The author (Lombardo), drawing on several examples in the literature and case studies, highlights the urgent need for a new governance model, primarily “human-centric”, which “promotes, in a spirit of institutional collaboration, effective and appropriate regulation in the application of Ai technologies”.

In the RIPM’s dialogues section, the first article, “Digital Public Infrastructure in the EU and the Creation of Public Value”, as other contributions have done, highlights that the European Union, in responding to the pandemic crisis, has “identified tools and methods in the field”, such as Digital Public Infrastructures (Dpi) – an example of which is suggested, the European Digital Identity Wallet (Eudi), which facilitates interoperability between digital services within the European Union – “capable of concretely enabling a new way of conducting public administration and generating public value (a concept explored in depth, keeping in mind Eu guidelines) also in co-creation with the private sector”. The authors (Zagari & Gambardella) conclude that a reading of the latest 2019-2024 European Council can demonstrate and that “the availability of Dpi and the implementation of interoperability between public administrations promise to be optimal options for European decision-makers both to improve the efficiency and transparency of European public services and

to enable a cross-border digital ecosystem closer to the European citizen”.

The second article in this section, “Research Manager and Administrator: A New Role in Research Support for Italian Universities”, addresses a topic already extensively explored by RIPM: research. In this case, it focuses on its management within universities, specifically focusing on a professional profile, “currently evolving”, with a wide variety of tasks it can assume. In the absence of formalization in Italy, the author (Bruschi) provides an overview of the various international definitions, as well as a description of the operational role and the functions performed within the research support offices of Italian universities. This reconstruction (of the role and professional potential) of Research Managers and Administrators is accompanied by an indication of a possible process for recognizing and developing this role, which also includes political support and the establishment of a specific professional association.

The third contribution, “Strategic Personnel Planning in Public Administrations”, confirms and expands the RIPM’s strategic trajectories since its first issue, initiating a new reflection on the effects of the Piao, starting with a reconstruction of the relevant regulatory evolution. The author (Cossiga) evaluates its “potential in terms of strategic orientation of the organization and personnel for the purpose of creating public value”. He emphasizes the multiplicity of characteristics of this “multifaceted” concept, illustrating some of them; he emphasizes that “it could play a decisive role in the future development of strategic

planning, serving as a compass for guiding administrative actions”. Early experiences with the implementation of Piao show that, “with (...) virtuous exceptions, most administrations have failed to fully grasp the meaning of this concept, limiting themselves to a superficial definition of related objectives and neglecting the importance of developing specific impact indicators to concretely measure public value”.

Also in the same section, the essay “Social Innovation for a Competent Local Public Administration” begins with a statistical fact: the (still low) level of perception of the efficiency of public administration, especially local government, which is “constantly called upon to redefine its identity and social positioning and renegotiate its relationship with citizens”. The author (Stella) shows how social innovation can “offer useful content and methodologies in this regard, also (...) to build public services

in collaboration with, and not just for, the end user”. Experiences already underway are cited, such as those of the Proximity Offices in Piedmont and Tuscany and the Proximity Networks in Tuscany, or those of “Italian cities that have developed regulations to govern collaboration between administrations and citizens in the management of urban commons”, or in schools and hospitals. Leveraging training as a response to the need to innovate the skills, attitudes, and approaches of local public administration staff, an active role for the Third Sector is explored, “through genuine experiential support”.

The contributions in this volume, regardless of their location, confirm that “it’s not just a matter of redesigning structures; the entire process of reinventing public institutions must be accompanied by recruitment and training processes aligned with the demands of the widespread use of advanced technologies”.

Bibliographical References

- Floridi, L. (2018). Soft Ethics and the Governance of the Digital. *Philos. Technol.*, 31.
- Margetts, H. (2022). Rethinking Ai for Good Governance. *Daedalus*, 151.
- Oecd (2021). Recommendation on the Governance of Artificial Intelligence.
- Interrogazione parlamentare – O-000028/2022 Parlamento Europeo.
- European Commission (2023). Artificial Intelligence Act – Negotiated Text.