The spread of Artificial Intelligence in the public sector: a worldwide overview

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ABSTRACT

The implementation of Artificial Intelligence (AI) in public settings is not a new topic. However, only recently it gained momentum, and practitioners started investigating the potentialities of this technology also within the public boundaries. Public sector plays a pivotal role in AI development both considering legislation advancement and application development, though scholars rarely focus on it, leaving an urgent gap to fill. Moreover the current body of literature is muddleheaded and scholars fatigue in disentangling and clarifying the various domains and fields of analysis. Based on these considerations, this paper aims at offering two main contributions: i) it provides a taxonomy for mapping the features of AI projects and then ii) analyzes the current trends in the development of such projects using the abovementioned taxonomy. This analysis allows us to provide a worldwide overview of the current widespread of AI applications, in order to explore the trends and identify promising paths for future research.

CCS CONCEPTS

• **Artificial Intelligence**;

KEYWORDS

Artificial Intelligence, public organization, e-government, international overview

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1 INTRODUCTION

For decades academics and practitioners discussed about the potential of Artificial Intelligence (AI) [1], but only recently the topic is gaining momentum in the public sector. In fact, public sector plays a pivotal role in AI development both considering legislation advancement [2–4] and application development [3]. Despite the growing hype around the topic, studies on AI in public settings are still limited [5].

The growing hype brought to confusion about *what* is AI. Nowadays AI is an umbrella term for relevant technologies (including machine learning, NLP, image and video recognition etc.) [1]. Hence a clear taxonomy for mapping and setting the boundaries of AI solutions is becoming urgent and relevant.

Moreover, there is not a clear understanding on what governments are doing, which and where AI applications are nowadays tested or already implemented. The only attempt has been made by the European Commission [2], that in 2020 identified 230 AI projects, focusing in the European context.

Based on these premises, this paper offers a double contribution. First offers a detailed taxonomy for mapping AI projects. Second, following the proposed taxonomy, and thanks to a screening from sector-specialized journals it gives an overview of the widespread of AI applications within the public sector. This exercise not only explores the pervasiveness of AI adoption but also highlights the features of AI applications. Finally, results set the ground for future studies on the topic.

This responds to Kankanhalli et al. [6] call to deepen the implementation and evaluation of AI solutions. More precisely, we aim answering to the following research questions: how to classify AI projects in the public sector? Which are the characteristics of the AI initiatives under development of already developed in public sector?

The remaining of the paper is structured as follow. Section 2 revises the existing literature on AI in the public sector, Section 3 defines the taxonomy and explain data collection, and Section 4 illustrates the results, discussed in Section 5. Finally Section 6 highlights the limitations and concludes.

2 AI IN THE PUBLIC SECTOR

The implementation of AI in public affairs is not a new topic. However, only recently the topic gained momentum [1], thanks to a more mature technology [3] and a larger number of applications by Governments [4].

Scholars and practitioners are now aware that the usage of AI has the potential to disrupt almost all industries [1]. Certainly, it has the potential to radically change the public sector and the way public organizations manage and deliver their services [5]. However, if on the one hand public organizations are in the middle of this shift, thus they are investigating and experimenting the best way of introducing AI [4], on the other hand scholars rarely focus on AI, leaving an urgent gap to fill [7].

Current research on AI is mainly theoretical, focusing on AI challenges [8] and expected impacts [3]. Moreover, it mainly focuses on one or a few cases, leaving an unclear picture of how and where AI is implemented in public domain.

Ahn and Chen [5] list nine different AI applications: from chatbots to IoT and Robotic sensors. Moreover, AI is adopted in several public domains: from healthcare to surveillance and law enforcement [4]. Finally, AI supports different activities and processes of civil servants: from decision-making [9] to service delivery [10].

Several authors (e.g., [3], [6]), point out healthcare as an extremely relevant area for AI application. In this sector, the opportunities are several and diverse (e.g. the analysis of big data and the clinical history of patients to improve the quality and rapidity of the diagnoses [3]).

Education is another area where AI can play a pivotal role. In this domain, AI can help in differentiating the learning pathways of students with different levels and learning speeds or in supporting teachers in students' assessment [4].

Furthermore, the public order and safety area is also significantly impacted by AI. In particular, the adoption of intelligent objects and image processing software (i.e. facial recognition systems) enable the monitoring of crowds and criminalities, hence supporting police departments [4].

AI applications start appearing also in the defence area. For instance, the U.S. Department of Defence has formulated a proposal for a strategic investment plan in 2021 through which AI will receive 841 million dollars of investments [11].

Local governments can also benefit from AI for their daily interactions with citizens and firms. In fact, digital technologies are reinventing the way a public organization communicates with the administrated territory [12]. In particular, chatbots are nowadays used for simple releases of information to citizens and firms [10], [13].

The list of AI applications reported above does not have the ambition to be exhaustive. Several other extremely relevant applications are developed in public domain, such as transports, economic affairs and social services [4].

This variety of use cases creates a muddleheaded and fragmented field of study in which scholars fatigue in disentangling and clarifying the various domains and fields of analysis. Setting the boundaries of AI research is becoming an extremely difficult exercise. Moreover, current trends in AI mainly focuses on qualitative studies.

To the best of our knowledge, the only attempt to make order in this field has been made by the European Commission with a research that lists all possible AI applications in the continent [2]. The research lists and classifies 230 AI applications based on different categorizations such as the type of AI-based technology or the country(-ies) of implementation. However, this research has room for improvement, as AI is an emerging technology, different trends can be found after only one year. Moreover 2020 was a very particular year, due to COVID-19, and this could also explain the growth of AI solutions in certain sectors (i.e. the healthcare one). Hence a fresh overview is needed. Second, the research limits to European initiatives. Third, the research is based on a survey, thus, self-declared data.

This paper aims at overcoming those limitations offering an up-to-date (December 2020) view of the diffusion of AI initiatives in the public sector, with a worldwide breath. Moreover, the proposed analysis offers several suggestions for scholars on how to proceed with research on AI in the public sector.

3 METHODOLOGY FOR DATA COLLECTION

The methodology consists in two phases: the definition of a taxonomy and the collection of AI projects worldwide. First, for overcoming the confusion about what is AI and how to classify AI solution [1], a review of possible way for classifying AI projects was conducted in order to create an overall taxonomy.

The taxonomy is itself a major contribution of the study (Section 4). The taxonomy was developed by integrating insights from two main categories of sources: (i) scientific peer review articles, mainly related to AI in the public sector but also integrated with elements from digital government, and (ii) grey literature, i.e. reports from both institutions and private companies. The exhaustive list of sources is listed in the result section (Table 1). The choice to include also the grey literature was made because AI implementation within public boundaries is rather a new phenomenon and few academic studies address it, hence this kind of knowledge allows us to deepen how practitioners are dealing with the technology.

After a first round of review, hence a first draft of the taxonomy, the variables were refined with an iterative trial and error process during the data collection phase to improve their quality and consistency.

Then, we collected data for feeding the database, according with the predefined taxonomy. As source of information, we relied on news articles from sector-specialized journals, such as GCN, Reuters, Next-gov, Science Daily (Appendix A for the full list). We tracked the news adopting an automated system of keyword alerts: we used as keywords "artificial intelligence" and "AI", and we daily monitored the articles that mentioned one of the settled keywords. We used only these two keywords as AI is an umbrella term for a set of relevant technologies and we did not want to miss any possible AI project. Only the articles related to the public sector have been selected and just news in English or Italian were considered due to language barriers.

We decided to rely on news articles because a database of AI project worldwide is missing and few academic studies provide empirical evidence of AI use cases within public boundaries. In fact,

AI implementation in public settings is still in its early stage [5] and this exercise, to our knowledge, was never done before.

To integrate data collected through news article, we considered the map of the Observatory for Public Sector Innovation (OPSI), a global forum for public sector innovation which presented case studies related to AI implementation.

For each AI-project the first two authors independently started analyzing the news articles and all the available information in order to extract the main data related to AI application. To do so, first they carefully read the article for extracting all the relevant information, hence the ones required to populate the database (see Table 1). Second, if needed, they look at other sources of information, such as the official website of the organization or the website of the project. The final goal was to fill the database (an Excel file) considering the variables of the taxonomy. The first two authors cross-checked the data and shared their ideas to reach a consensus among the AI solutions to include in the sample. To do so, we rely on the following criteria:

- the solution described should make clear use of Artificial Intelligence;
- the solution should be clearly implemented (or under implementation) in one or more public organization;
- the information available on the solution should be sufficient for filling with reasonably certainty each variable of the taxonomy.

Finally, in case of ambiguity in the allocation of the project for one or more dimensions, the third and fourth authors were involved.

The output of this analysis is a sample of 215 AI solutions implemented in the public sector. The projects have been selected from January 2018, when we started data collection, to December 2020. After data collection, we performed simple statistical analyses. These analyses has a twofold goal: fist to validate the taxonomy, second to identify the current trends in the development of AI projects in public settings. Simple statistical analyses match with the explorative purpose of the paper that does not aim at finding causal relationship among the variables but to depict their distribution.

4 RESULTS

Results were reported according with the two phases described in the methodology. First, we report the proposed taxonomy, second the results of data collection.

4.1 A taxonomy for mapping AI solutions

Overall, we identified 9 dimensions that, according with the existing literature, are relevant for describing an AI solution adopted in the public sector:

1. Timing: it is important to check the date of announcement of the AI solution, in order to explore the trend over the years.
2. Maturity level: as the usage of AI solutions in the public sector is relatively new, for a proper description of the case it is relevant to know if they have been just announced, or in pilot testing phase or already deployed. The same taxonomy has been used by G. Misuraca et al [4].
3. Geographical distribution: it refers to the country in which the AI solution is adopted.
4. Project extension: AI can be adopted at with a different territorial extension, from solution implemented within the boundary of a single municipality to project that touch upon different areas in different part of the globe.
5. Service beneficiaries: as suggested by Yildiz [14], government services can be divided in Government to Citizens (G2C), Government to Businesses (G2B), Government to Government (G2G) and Government to Employees (G2E). We rely on this distinction for looking at the main type of application of AI.
6. Application domain: it is also important to investigate in which domain AI is mainly deployed in public settings. For a domain classification we rely on the most renewed and consolidated one, the COFOG (Classification Of the Functions Of Government), adopted by several international institutions (OCSE; ONU; Eurostat, etc.).
7. Processes: complementarily to the previous two dimension, this variable aims at detailing the macro-category of public process affected the most by the AI solution. We rely and reinterpret the classification adopted by Engstrom, et al. [15].
8. Actors involved: this domain clarify the administrative level in which the AI solution has been deployed. It can be a single actor (for example a single local government) or a consortium of different actors.
9. Classes of AI technologies: when discussing about AI, it is difficult to provide an exact definition [16]. This complexity is reflected also in the absence of a clear definition of AI typologies. For the purpose of this study we proposed the taxonomy used by the AI Observatory of Politecnico di Milano, which we found at the same time complete and simple, and that was already previously used for categorizing AI solutions in the private sector. The adopted classification is partially aligned also with the one proposed by van Noordt and Misuraca [17].

Table 1 synthetizes the dimensions taken into consideration and the category in which the dimension was divided or the variable used. Moreover, for each dimension, it lists the body of literature from which we extracted the taxonomy.

4.2 Statistical analysis

Table 2 reports the overall descriptive statistics of the analysis. The main insights extracted from those statistics are reported below.

4.2.1 AI evolution and level of maturity. Data on the 'timing' dimension shows that the implementation of AI solutions in the public sector has grown over the last three years: from 45 in 2018 to 123 in 2020. Moreover, even if AI adoption in public settings is rather in its early stage, the level of maturity of AI solutions is homogeneous: hence, as depicted in Figure 1, the majority of the cases are in a pilot testing phase (81 projects; 38%), followed by announcement (72 projects; 33%) and operative (62 projects; 29%) stages.

4.2.2 AI cases per Continent. Considering the geographical distribution of the AI initiatives (Figure 2), the highest number of projects was found in America (113; 53%), followed by Europe (64; 30%) and Asia (30; 14%). The remaining 8 projects (3%) are spread among Oceania and Africa.

Table 1: The taxonomy developed for the current study

Dimension	Categorization or adopted variable	Source of information (when applicable)
1. Timing	• Year of the first news/article on the project	
2. Maturity level	• *Announcement*: declared intention of developing a project • *Proof of Concept (PoC)*: initiatives in the pilot testing phase • *Operative*: projects that are fully operating	[4]
3. Geographical distribution	• Continent	
4. Project extension	• World • Continent • National • Delimitated territory within the country • City	
5. Service beneficiaries	• *Government to Citizens* (G2C), initiatives focusing on the way citizens interact with government • *Government to Businesses* (G2B), initiatives focusing on the interactions between government and private businesses • *Government to Governments* (G2G) & *Government to employees* (G2E), initiatives aiming at fostering the relationship within and among governments	[14]
6. Application domain	• General public services • Defence • Public order and safety • Economic affairs • Environmental protection • Housing and community amenities • Health • Recreation, culture and religion • Education • Social protection • Cross-scope	Classification of the Functions of Government (COFOG)
7. Process	• *Data analysis and policies definition:* AI applications implemented to assist policy makers in the definition of new policies and regulations. • *Awarding mechanisms:* AI applications adopted to support the verification of specific requirements. • *Public service delivery:* AI solutions adopted for enhancing the capability to provide services and citizens engagement. • *Empowering and prioritization:* AI solutions adopted to better automate existing processes. • *Internal operations:* AI solution adopted to support the internal functioning. • As for the public domain, an additional process has been added for those projects that impact on more than one process.	[15]

Dimension	Categorization or adopted variable	Source of information (when applicable)
8. Actors involved	• Central Public Organizations • Local Public Organizations • University and Research Institutes • International Organizations • Consortium • *Private Companies,* in collaboration with public organizations.	
9. Classes of AI technologies	• *Autonomous robot:* use of algorithms in robots for autonomous movements or actions. • *Autonomous vehicle:* AI application capable to self-driving for transporting people or objects. • *Computer vision:* use of algorithms to extract information from images. • *Intelligent Data processing:* use algorithms to analyze structured and unstructured data. • *Intelligent object:* objects able to make decisions autonomously and interact with the external environment. • *Natural language processing:* AI solution to process, comprehend and translate written language. • *Recommendation:* AI application to address the preferences of the final user, producing personalized recommendations. • *Virtual Assistant/chatbot:* AI solution to interact with humans and provide services.	[17]; Taxonomy developed by the Artificial Intelligence Observatory, Politecnico di Milano [18]

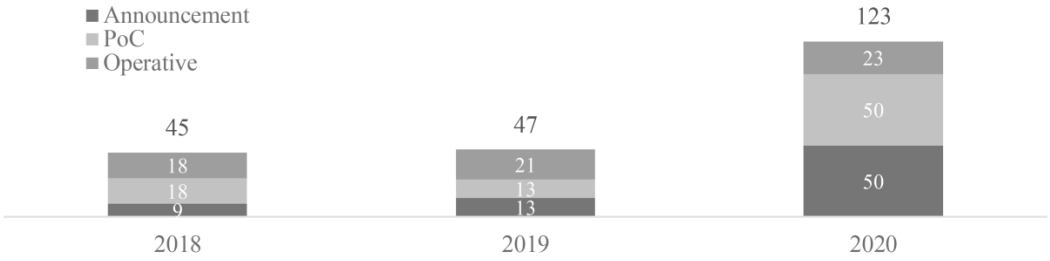

Figure 1: Projects distribution by starting year and maturity level

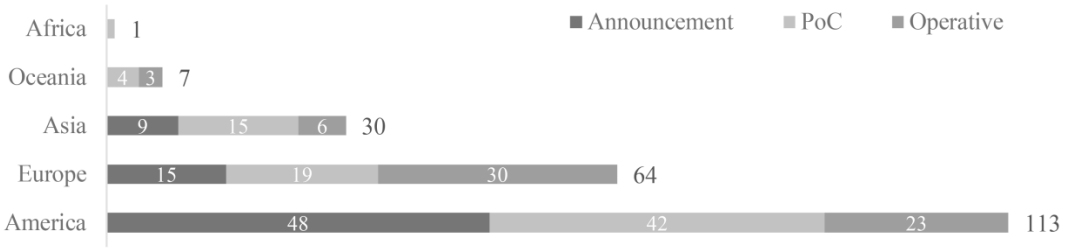

Figure 2: Projects distribution by geography and maturity level

Looking at projects maturity, the scenario is different. Data shows that European countries have more projects in the operative stage (30 projects, versus 23 in America).

Lastly, looking at the geographical dissemination, most of the projects have a national expansion (106 projects), followed by territorial (47 projects) and city (46 projects) diffusion.

Table 2: Overview of the total results

Dimension	Category	Percentage of AI projects
1. Timing	2018	21%
	2019	22%
	2020	57%
2. Maturity level	Announcement	33%
	Proof of Concept	38%
	Operative	29%
3. Geographical distribution	Africa	0,5%
	America	53%
	Asia	14%
	Europe	30%
	Oceania	3%
4. Project extension	World	6%
	Continent	1%
	National	49%
	Territorial	22%
	City	21%
5. Service beneficiaries[a]	G2C	63%
	G2B	6%
	G2G&G2E	67%
5. Application domain	General public services	13%
	Defence	8%
	Public order and safety	13%
	Economic affairs	18%
	Environmental protection	6%
	Housing and community amenities	1%
	Health	31%
	Recreation, culture and religion	1%
	Education	1%
	Social protection	4%
	Cross-domain	5%
6. Process	Data analysis& policy definition	22%
	Awarding mechanisms	0,5%
	Public service delivery	26%
	Empowering & prioritization	31%
	Internal operations	20%
	Cross-process	1%
7. Actors involved	Central Public Organizations	46%
	Local Public Organizations	28%
	University and Research Institutes	15%
	International Organizations	0,5%
	Consortium	3%
	Private Companies	7%
8. Classes of AI technologies	Autonomous robot	4%
	Autonomous vehicle	3%
	Computer vision	29%
	Intelligent data processing	28%
	Intelligent object	11%
	Natural language processing	9%
	Recommendation	0,5%
	Virtual assistant/chatbot	16%

[a] The sum of the percentages for the dimension 'Stakeholders involved' is above 1 because the three categories are not mutually exclusive.

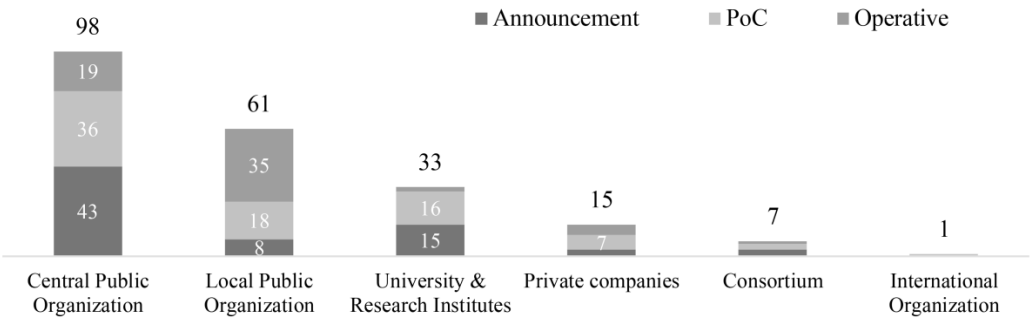

Figure 3: AI initiatives per actors and maturity level

4.2.3 AI cases per actor involved. To identify the actors involved in the implementation of AI within the public sector, the analysis focuses on the main actor engaged in each project. As depicts in Figure 3, Central Public Organizations are the institutions which show the highest rate of AI projects (98 cases; 46%), followed by Local Public Organizations (61 cases; 28%): overall, Central and Local organizations covered 159 projects out of 215 (i.e. 74%). Other active entities are University and Research Institutes (33 cases; 15%) and Private Companies (15 cases; 7%), which decided to share their technical solutions and competences to develop AI projects within the public boundaries.

Looking at the typology of interaction that projects enhance, AI applications were classified considering the relations with three main groups of stakeholders: citizens (G2C); businesses (G2B) and other public organizations (G2G & G2E). The data highlights that the majority of the applications (143) are developed to improve the internal functioning of public organizations.

4.2.4 A cross-data analysis between AI solutions and actors. To better identify which are the main classes of AI solutions implemented by each actor and to provide an overall view of the technology adoption, the projects have been classified cross-checking data related to their level of maturity, actors involved and AI classes of solution.

Data highlights that AI projects are mainly based on Computer Vision solutions (62 projects; 29%), hence projects that support actors to extract information and elaborate patterns from images. Then, the implementation of Intelligent Data Processing (60 projects; 28%) and Virtual Assistant/Chatbot (35 projects; 16%) follow: as regard the first, the actors involved in AI development use these solutions to extract and analyze information from structured and unstructured data. Chatbot solutions are instead implemented to enhance the way in which a public organization provide services to different users.

The data show that the majority of operative initiatives (46; 21%) are in these three classes and that central and local public organizations have the highest number of initiatives. In particular, central public organizations have started at least one experimentation for each AI solution.

4.2.5 A cross-data analysis between public domains and processes. The highest explored application area is the health sector, with 67 cases (31%): this is not surprising as, due to the breakout of the COVID-19 pandemic, the request of AI solutions in this domain has increased. Indeed, AI solutions in the health sector have grown noticeably between 2018 and 2020: in 2018 we recorded 4 projects, which have increased to 9 in 2019 and up to 53 in 2020. Other significant domains are Economic Affairs, with 38 cases (18%), General Public Service and Public order and safety, with 27 initiatives respectively (13%). Considering instead the process distribution, the majority of the AI projects are implemented to support public decision makers in the empowering of existing processes and in the prioritization of activities (66 cases; 31%). Then, AI solutions are developed also to enhance public service delivery (56 cases; 26%) and to assist public decision makers in the definition of new policies and regulations (47 cases; 22%).

5 DISCUSSION AND FURTHER STEPS IN THE RESEARCH DOMAIN

Results offer interesting insights that enrich the current body of literature on AI in the public sector. Moreover, they clarify the paths to follow in further studies on the topic.

First we offer an overall taxonomy that overcome the current confusion [1] of what is AI and how to classify AI projects. Second, we apply the taxonomy, confirming its feasibility and offering an overview of the widespread of AI solutions worldwide.

Data confirm the impressive trend in the development of AI applications in the public sector. In 2020 we identified a growth equal to +162% compared to the previous year. Results confirm and reaffirm the trend identified by previous researches [4]. Moreover, almost 30% of those AI applications are already functioning and nearly 40% are proof of concept. This data demonstrates how public organizations are going fast, or even rushing in the usage of AI. Thus, scholars are called to follow this trend also in academic research, radically increasing the focus on AI and filling the lack of scientific research on the topic.

Moreover, the data gathered offers interesting theoretical insights and specific questions for further research in the AI domain. These elements are reported in Table 3

First, among the possible types of AI applications two clearly emerged: Intelligent Data Processing and Computer Vision. Thus, public organizations are now using AI mainly for collecting reliable

Table 3: Synthesis of the finding and open questions

Data	Quantitative finding	Insight	Open questions for futureresearches
Type of AI applications	• 29% Computer Vision • 28% Intelligent Data Processing	Public organizations are now using AI mainly for collecting reliable data from unstructured sources and to recognize patterns	• How AI has been used for collecting data from new sources, such as images? • How instead it is used in cases of destructured sources, such as scanned documents?
Specific AI applications	• 16% of chatbots • 77% of them are PoC or operative	Chatbot is one of the most mature AI application	• How the application has been implemented? • Which challenges public organizations have to face?
Policy sector domains	• 31% in healthcare • 58% in America • 75% in 2020	Healthcare is the prevalent domain, mainly in America and with relevant growth in 2020	• Which differences among the countries? And why? • How COVID-19 impact on AI in healthcare? • Will the trend remain the same in the next years?
Type of processes	• 31% on the support of already existing processes	AI is mainly added on existing processes. AI project that radically transform the organization are still rare.	• Which are the organizational impacts from AI introduction?
Actors involved	• 46% developed by Central Public Organizations	Central Public Organizations has the highest amount of AI applications	• Which are the peculiarities of these organizations? • Which are the challenges that actors face when implementing AI?

data from unstructured sources (images, documents, etc.). This is probably the first step: only once 'good' data are available AI applications can be used for better service delivery or decision-making. This evidence offers a new lens for scholars. So far research focuses mainly on AI applications for service delivery, for instance chatbots [10] or for supporting decision-makers [9]. On the opposite research must focus also on AI as a data collector from new sources (for example images or sounds) or from existing historical destructured sources (for example scanned documents).

Among the potential applications, so far public organizations have focused on chatbot (the third most widespread type). Moreover, almost 80% of the detected chatbot projects are in the proof-of-concept phase or even already functioning. Hence, increasing specific research on chatbots, following the path traced by few previous studies [10], [13] can be extremely useful to identify ex-post insights on how the application has been implemented and which challenges public organizations had to tackle.

The results on the policy sector domain are partially in contrast with the ones achieved by Misuraca et al. [4]. In fact, in our analysis, the prevalent sector of AI application is healthcare, while in the previous study only a few applications were registered in this sector. This is mainly due to a large number of applications in America (58%) and a relevant percentage also in Singapore (8%) and Israel (9%). Moreover, the majority of these cases have been detected in 2020 (75%). This evidence opens a question on possible differences among countries and a possible shift in the trend, probably due also to the pandemic crisis related to COVID-19. Further studies should explore this finding and the possible applications of AI in response to the crisis.

Finally, the results offer some interesting insights into the type of processes affected by AI. The majority of the AI application collected focused on the support of already existing processes (66 cases; 31%). This testify that AI implementation is still in an embryonic phase. Organizations add AI to the existing processes, seeking task automation. On the opposite AI as a driver for a radical digital transformation, i.e. a transformation of processes, culture and structure of a public body [19] is still rare. This confirms previous studies on the fact that digital transformation in the public sector is still an ongoing process [19]. Looking at AI with the digital transformation

lens, thus with the organizational lens, is also a fruitful field for future researches.

6 LIMITATIONS AND CONCLUSIONS

The paper aims at exploring how public organizations are adopting AI. Thanks to an overview of existing AI projects, we focused current trends and identified promising paths for future research.

We are aware of several limitations characterizing our work. First, the methodology does not have the ambition to exhaustively list all AI projects. It looks only at public information, even though adopting a rigorous and systematic approach. Moreover, not all the information was reported in languages accessible to the authors, leading to possible misunderstandings, misclassifications and potential biases in data collection and analysis. In addition, the primary source for data collection - news articles - not always provide sufficient details and insights on AI maturity or on the process of adoption. Moreover, AI is often an umbrella term for many different technologies and, nowadays, there is no consensus on which applications can be enumerated under the term 'Artificial Intelligence'. Thus, possibly some solutions were not detected and the research has not the aim to be exhaustive. Despite that the taxonomy turned to be useful for mapping AI solutions. The adoption of the same taxonomy in more restricted boundaries (for example single countries or single domain) can help in seeking exhaustiveness and making a census.

Despite these limitations, the paper offers a fresh and up-to-date perspective on the evolution of AI in public domain that were so far missing in the literature, supporting further studies on the topic. Moreover, from a managerial perspective, the study points out how the topic is gaining momentum in public organizations and provides both private and public managers with insights related to the main features of AI applications within the public settings.

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A – DATA SOURCES

	Source	Brief description
Data sources	AI4Business	Italian media platform providing information and knowledge on AI adoption across all the business sectors
	GCN | Technology, Tools and Tactics for the Public Sector	The Digital Edition provides technology assessments, recommendations, and case studies to support Public Sector IT manager responsible for the selection and development of technology solutions
	GovInsider	Media platform for Asia Pacific solutions. The platform reports news and solutions about how government officials innovate.
	Government Technology	The magazine provides editorial contents about information technology in the public sector, with a focus mainly on the state and local government
	Nextgov	The site encourages discussion and publishes news about how the spread and the adoption of digital technologies is transforming the way American government agencies perform their activities and serve citizens.
	Reuters	News agency providing information concerning historical and current events, financial and business, technology, and government
	Smart Cities World	Media platform that covers the evolution of urban challenges and smart cities.