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AI in the Public Sector: An Exploration of Social Imaginaries

Antonio Opromolla
a.opromolla@unilink.it
Humanities Dep. | *Link Campus University*

Silvia Di Rocco
silvia.dirocco@linkstudents.it
Link Campus University

Lorenza Parisi
l.parisi@unilink.it
Humanities Dep. | *Link Campus University*

Abstract

The use of artificial intelligence (AI) enables the transformation of both organizations and institutions alike in many different fields. This paper explores the social imaginaries (i.e. set of imagined and collectively shared ideas, practices, and values people use to construct and legitimize reality) in relation to the use of AI in the public sector. According to Castoriadis (1975), human imagination plays a key role in the process of the "self-generation" of the current social order. Indeed, technological affordances and social practices are intertwined and mutually shape each other, and both contribute to the generation of what is called the "social imaginary." Through a discourse analysis, the paper investigates the most popular narratives in European and Italian public policies framing and regulating the implementation of AI in the public sector. Then, the paper explores the AI imaginaries of Italian public sector through 15 interviews with AI experts (i.e., designers and managers) from the Italian public sector. Differences and similarities in the AI social imaginaries between policies and experts are highlighted. Experts advocate the need for a human-centered design approach in the implementation of AI to map users' needs and to design useful public services. By adopting Castoriadis' (1975) approach, we identify opposition between the *heteronomous imagination*, the one imposed by public policies, and the *autonomous imagination*, based on citizens' needs and perceptions, including emotional ones. In conclusion, the paper calls for a human-centered design approach in the implementation of AI in the public sector.

Keywords

Social Imaginary | Artificial Intelligence | Public Sector | Human-Centered Design | Experts

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1. Imaginary and Society

In *The Imaginary Institution of Society* (1975), Castoriadis considers institutions to be social constructs that evolve according to different historical and socio-cultural contexts, describing the process of the "self-generation" of the social order and the ongoing redefinition of institutional regulatory mechanisms. These elements are socially created based on everyday dynamics and routines, and they constitute what he calls the "social imaginary," defined as "an incessant and indeterminate socio-historical creation of figures, forms, images, from which people can talk about something. Reality is the construction of this imaginary" (1975, p. 32). As a result, history can be considered a *poiesis* created within a specific society, where historical narratives contribute to shaping the collective social imaginary (Ricoeur, 2000).

Castoriadis claims human imagination plays a vital role in the generation of the social order. Indeed, through creativity, human societies transform and establish themselves and produce the related social imaginary. Therefore, the emerging transformative processes are actualized by social practices expressing shared meanings and thus shaping the collective identity and individual and social behaviors. In this sense, the imaginary is produced *within* society.

According to Castoriadis, a plurality of imaginaries coexists within a society.

Indeed, dominant symbols and meanings legitimized and shared by institutions can become stiff and oppressive; therefore, a consistent reimagining of new organizational models, values, and norms that will lead to social change and innovation is needed. The conflict between a central and a peripheral imaginary can become a driver of the social transformation of the collective social imaginary. In greater detail, Castoriadis argues that the *heteronomous imagination* dimension (i.e., the social imagination in which meanings, representations, and norms are imposed) opposes the *autonomous imagination* dimension (i.e., people's ability to create and self-determine and envision institutions and related meanings). Further, Castoriadis urges the search for an autonomous imagination in the construction of the social imaginary, encouraging people to become aware and to participate actively in social transformation; similarly, de Certeau (1980) highlighted the role of imagination in resisting dominant power structures.

Along with human creativity, Castoriadis also recognizes the transformative power of technology (*teuchein*, see Di Blasi, 2013), promoting autonomy and creativity.

Indeed, he views the technical and social dimensions as inextricably linked, particularly because the first represents the materialization of the significations of the social imaginary (Centorrino & Di Paola, 2022). While technologies are instruments of domination and control, they also facilitate communication, social organization, and the production of alternative meanings, offering new opportunities for social transformation.

According to Castoriadis, technologies cannot be conceived as merely instrumental or functional; rather, technologies and social practices are intertwined and mutually shape each other, contributing to the generation of the social

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imaginary. In addition, in the social sciences, the concept of *socio-technical systems* emphasizes the interdependence between the social and technical dimensions.

According to Miller (1978), societies are characterized by a complex interaction between social organizations (including social institutions, interpersonal relations, and cultural processes) and technological systems (including communication technologies, infrastructures, and scientific innovations). That is, socio-technical systems combine social and technical concepts and evolve together along with people's experiences, needs, beliefs, and expectations about social change. For this reason, it is important to analyze and design interactions with socio-technical systems, focusing on the related social impacts, the characteristics of digital interfaces, and users' capacity to interact with these systems effectively.

According to these theoretical assumptions and considering the interdependence between the social and technical dimensions, the paper describes emerging conflicts in the social imaginary related to the use of artificial intelligence (AI) in the public sector. The paper is structured as follows. First, it provides a literature review focusing on the main trends in research on the use of AI in the public sector (par. 2).

Afterward, it investigates priorities emerging from European and Italian policies regulating AI use in the public sector (par. 3); then, it explores the AI social imaginary of Italian public sector experts (par. 4). Differences and similarities between policies and experts in relation to the AI social imaginary are highlighted[1]. However, a conflict between these two imaginaries is observed to have emerged: while policies are more concerned with the transformative force of AI in the public sector, impacting both the economic sphere and societal challenges, experts in the public sector field advocate for the application of a human-centered design approach to map users' needs and to design useful services. In conclusion (par. 5), this paper affirms the importance of creativity and autonomous imagination (Castoriadis, 1975) in establishing a new social imaginary of AI in the public sector. In doing so, the human-centered design approach emerges as a key resource for implementing innovative solutions having greater alignment with citizens' needs.

2. Trends in Research on the Use of AI in the Public Sector

AI is a computer science research field aimed at developing systems and machines that can perform tasks that are usually completed by humans (Russel & Norvig, 2021). This is based on several technical solutions: learning from data, recognizing patterns, and behaving accordingly (e.g., chatbot, computer vision, intelligent objects, etc.); however, this literature review focuses primarily on the organizational and social implications of using AI.

[1] A similar study—starting from the work of Castoriadis—compared the differences between how AI is described in science fiction movies and how it emerges in the socio-technical imaginary associated with intelligent systems (Bory and Bory, 2016).

The scientific literature has described the relevance of AI in different domains (education, health, security, finance, etc.), including the public sector (Agarwal, 2018; de Souza et al., 2019; Wirtz et al., 2021); indeed, many institutions have already begun implementing AI technologies (van Noordt & Misuraca, 2022). According to Zuiderwijk et al. (2021), the use of AI in the public sector may contribute to increases organizational efficiency and performance; automation of simple tasks; improved risk identification; the prediction and monitoring of events; improved data and information management; support for decision-making processes; enhanced engagement and personalization; and increased speed and quality of public services.

Yet, the negative effects and risks are also discussed: Wirtz et al. (2019) divided these into four main categories: 1) societal, including issues concerning the social acceptance of AI, whether for lack of trust or fear; 2) ethical, such as discrimination emerging from biased data; 3) regulatory, focused on such legal issues as privacy or accountability; and 4) technological, comprising such issues as data integration and employee specialization.

The implementation of AI in the public sector represents an opportunity for transformation that may generate a relevant impact on citizens' lives (Mergel et al., 2018); however, it requires key organizational and social processes, such as employees' acquisition of new digital skills, adequate transparency and integrity levels, citizen participation, and the design of new interactive models. Moreover, some scholars have claimed the need to frame the governance of AI (Wirtz et al., 2020) due to its wide impact on society (Gahnberg, 2021). Indeed, AI in the public sector is considered a trailblazer for other domains (including private ones); therefore, national and international policies should set specific rules for the improved regulation of the Big Tech companies currently dominating the AI market (Radu, 2021; Khanal et al., 2024).

Recently social sciences scholars have started to investigate the use of AI technologies in specific public sector domains, such as the social impact of the adoption of automated decision systems in the public sector (Schiff, 2021); the predictive systems used in decision-making processes (McDonald et al., 2022); the application of natural language processing systems to the analysis of political speeches (Rice et al., 2020); the impacts of automated systems on willingness to participate in government programs (Miller et al., 2022); the application of robots in long-term care (Ying Tan et al., 2021); the integration of AI with Internet of Things to improve service delivery (Ishengoma et al., 2022); the use of chatbots in bureaucratic processes and its ethical issues (Salah et al., 2023); the application of data analytics in policymaking, especially oriented to the economic sector (Loukis et al., 2020); and the application of machine learning to estimate daily public transport usage rates and the behavior of mobile people (Sariyer et al., 2024). Several social scientists also have studied the role of algorithms in public leadership (Leighton, 2019) and their use in public service delivery (Nzobonimpa, 2023).

Other scholars have demonstrated the importance of studying stakeholders' opinions in relation to the application of AI in the public sector (Qian Sun et al., 2019).

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For example, Ingrams et al. (2021) and Haesevoets et al. (2024) explored citizens' attitudes toward the use of AI in government decision making, registering ambivalent citizens' opinions. Moreover, Gesk et al. (2022) revealed that German citizens would prefer to limit the application of AI only to (general) public services (rather than to services more oriented toward specific target groups and to solve specific problems for which they prefer human interaction). According to Auernhammer (2020), human-centered design, a method employed in the implementation of socio-technical innovations through an iterative process[2], may contribute to the implementation of effective AI systems intended to deliver solutions that match the specific characteristics of a particular context, including marginalized people and communities; to designing useful and usable user interfaces; to persuading people to adopt a desired behavior; and to supporting physical, intellectual, and emotional needs. In addition, the adoption of a human-centered design approach involving people in designing and implementing services and solutions may also provide citizens with the critical skills needed to confront AI (Vinuesa et al., 2020; Criado et al., 2019; Chui et al., 2018).

Quite recently, some Italian scholars from different research fields (though primarily the organizational, legal, and computer science disciplines) investigated the use of AI in the Italian public sector. After the COVID-19 pandemic (Lovari & Ducci, 2022), they became interested in investigating the role of the Next Generation ur program in funding these projects (Galetta, 2023b; Maria Cati, 2024; Raffiotta, 2022) and to explore potential risks that citizens may encounter (Barone, 2020). Scholars primarily analyzed the principal AI technologies employed: decision-automation-systems (Galetta, 2023a) and chatbots (Bellini et al., 2020; Federici et al., 2021). The most cited applications of AI in the Italian public sector include education, justice (Fatima et al., 2020), health (Cingolani et al., 2023), defense (Fanni et al., 2023), and the urban environment (Dughiero et al., 2021). A particular focus is also given to the use of big data in governing Italian municipalities, mentioning challenges and opportunities for public services (Dughiero et al., 2021; D'Albergo et al., 2022; Cavallo Perin, 2021). In conclusion, the sociological perspective exploring the use of AI in the Italian public sector is limited, necessitating further investigation into the cultural and social dimensions.

[2] Human-centered design can be intended as a specific methodology, with specific steps: 1. *analysis*, to understand the micro- and macrosocial contexts through observation and in-depth studies and to identify the way stakeholders interact among them and with the technological level; 2. *problem definition*, which intends to identify the main issue(s) to face, according to the insights that emerged in the previous phase; 3. *ideation*, aiming at generating creative solutions in socio-technical systems that intend to solve the identified problems; 4. *prototyping*, which intends to realize tangible versions of the (alternative) solutions previously ideated, giving people the chance to evaluate them in the next phase; 5. *test*, to obtain feedback and refine the solution, before proceeding with its implementation.

3. European and Italian Policies Regulating AI Use in the Public Sector

Following a discourse analysis method, we explored narratives of AI in public policies to highlight how they reflect and construct power relations and ideological positions (Hewitt, 2009). The focus is on both European and Italian policies, as they are considered strongly interconnected. Further, the analysis of key European policies (European Commission, 2018, 2019, 2020a, 2020b, 2021a, 2021b, 2021d, 2024) revealed the following primary patterns:

1. *AI as an Economic Force*: AI can drive economic growth. Thus, AI research and innovation can maintain European competitiveness, while a cross-sectoral (private/public) approach rejuvenates markets and industries.
2. *AI as a Transformative Force:* AI can drive social innovation in the environment, health, transport, agriculture, and education sectors. As such, a European framework with clear standards would establish a common basis for the development of national strategies.
3. *AI as a Force to Regulate:* Ethical and trustworthy AI is necessary, as is the provision of norms to ensure AI applications respect human rights and avoid discrimination and biases (*civil liability* of AI). In effect, transparency of algorithms, accountability, fairness, reliability, safety, and robustness are key points.
4. *AI as a Field to Develop*. The availability of high-quality data, as well as infrastructures for sharing and governing them, speed up AI development.
5. *AI in the Public Sector as a Trailblazer.* The public sector is considered a pioneering field in the adoption of AI and in the diffusion of a culture of innovation and experimentation. It improves efficiency and effectiveness in government operations (automating routine tasks, streamlining processes, and optimizing resource allocation) and enhances service delivery to users (personalizing services and anticipating needs, expectations, and preferences).
6. *AI and Humans.* EU policies emphasize the importance of a human-centered approach to AI, including the need to prioritize the way AI can benefit the society, the protection of human rights and the strength of inclusiveness, participation, engagement, and collaboration and to improve digital skills.
7. *AI as a result of collaboration*. This is achieved at both the international level, facilitating knowledge sharing and the dissemination of AI solutions, and the community level, strengthening interactions among government, citizens, businesses, associations, etc.

Specific European initiatives are monitoring the development, uptake, and impact of AI in Europe (Jorge Ricart et al., 2022; Manzoni et al., 2022). For instance, Tangi et al. (2022) monitored an AI application in the public sector, showing that most European initiatives act at the national level to stimulate awareness of AI (especially among civil servants), provide measures to improve data quality, carry out pilot testing, and develop normative frameworks. National strategies for the application of

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AI to the public sector are implemented differently, as they involve different stakeholders (belonging to the private sector) providing different organizational solutions.

In relation to the Italian case, Italy is facing various changes and improvements in terms of digital innovation in the public sector (European Commission, 2022).

Recently, more attention has been paid to the development of public services according to a human-centered design approach (Fabbri & De Santi, 2018), to the delivery of plans to modernize the infrastructure (AgID, 2023), to the development of cross-sectoral services (e.g., digital identity systems), and to the reinforcement of civil servants' digital skills. Following a brief summary of the analysis, we analyzed Italian policies on AI, looking at main documents and guidelines (AgID, 2018; Ministero dello Sviluppo Economico, 2019; Ministero per l'Innovazione Tecnologica e la Digitalizzazione, 2022; AgID, 2023). The following main patterns emerged.

1. *AI as a Transformative Technology of the Public Sector*. AI is considered central to optimizing bureaucratic processes, thanks to its ability to automate routine tasks, reduce manual errors, and streamline workflows. Moreover, it can improve service delivery, offering personalized and responsive services to citizens, and it can increase overall efficiency within the public sector by enabling big data analysis, providing insights that can drive decision-making processes and, in doing so, can save costs.
2. *AI as a Human-Oriented Technology*. AI affords the opportunity to increase civic engagement and participation in government processes through easier feedback collection and analysis of social problems. Moreover, AI can enhance the user experience and personalize it to the specific needs and characteristics of people through continuous refinement and providing users with information so they can make conscious decisions. AI in the public sector can be adopted only if there are no violations of fundamental human rights. In the long term, AI can address societal challenges; promote equity, accessibility, and inclusivity; and create a more sustainable development.
3. *AI in the Public Sector as a Collaborative Outcome*. The implementation of AI in the public sector is possible only by leveraging diverse expertise to conduct comprehensive studies on AI's implications and impacts. This will provide policymakers with a clear understanding of AI's implications for governance and citizen services. Particular attention is paid to the role of public employees, who must develop digital skills and competences in data literacy.
4. *AI in the Public Sector as an Evolving field*. According to these policies, many challenges are faced in the development of an informed decision-making process. It is thus necessary to adopt a comprehensive, coordinated, and continuous approach to solve ethical issues, such as those related to fairness, transparency, accountability, and privacy, to strengthen social acceptance; create a legal framework for data protection, liability, intellectual property rights, and regulatory compliance; and address technical challenges, including algorithmic bias, data quality, interoperability, and scalability.

5. *AI in the Public Sector as a Field to Monitor*. This concerns many elements, including the importance of implementing sustainable solutions, monitoring the roles and responsibilities of people involved, and checking how data are collected and managed.

European and Italian AI policies share the goal of leveraging AI for economic and social progress, emphasizing human rights and inclusivity. They differ, however, in relation to the emphasis on regulation and on the methods for implementing AI in the public sector. While European policies adopt a more normative and standardized approach, Italian policies focus more on process optimization and efficiency, with greater attention to digital skills training and to enhancing collaboration at the national level.

4. The AI Imaginary of Italian Public Sector Experts

To investigate experts' social imaginary in relation to the use of AI, the perceived priorities, and related risks and opportunities, we conducted 15 in-depth interviews with AI experts (i.e., designers and managers) from the Italian public sector. This research is part of a broader project with the aim of describing the social imaginaries of different stakeholders (public service experts, citizens, civil servants, private corporations, etc.) in relation to the use of AI in the Italian Public Administration (PA).

The first part of this research (Opromolla et al., 2024) is based on four focus groups involving 40 adolescents and young adults (aged 14–24 years). Young people possess a limited understanding of how AI functions, leading to significant apprehension regarding its utilization. This fear is particularly heightened by their lack of awareness regarding how AI processes their data and for what purposes.

In fall 2023, we conducted in-depth interviews with 15 AI experts (5 females and 10 males) working in the Italian public sector, more specifically, designers and managers working in digital transformation and public service design. We stopped recruiting when we achieved saturation (Hennink et al., 2017). The semi-structured interview method was selected to facilitate interviewer guidance and to ensure the achievement of objectives, as it offers flexibility to explore emergent points during the interview[3].

The interviews investigated the following areas: 1) emerging trends, technologies, and best practices in the implementation of AI in the Italian and European public sectors; 2) related risks and opportunities; and 3) challenges in the design process

[3] Recently, a survey was conducted by Forum PA (2024) to investigate Italian public servants' perceptions of the integration of AI into Italy's public sector (1,500 respondents). Most employees believe AI can enhance efficiency and service quality, but a minority fears they may lose their jobs. Many employees believe AI will contribute to automating repetitive tasks, improving operational accuracy, and enabling employees to focus on higher-value work. However, some people raised concerns about data privacy and ethics and asked for robust regulatory frameworks.

and in the overall user experience, including citizens' involvement in the design process.

According to AI experts, promising fields of AI application in the public sector include mobility, especially logistic optimization, and fraud detection (e.g., social welfare fraud). The most cited solution is the chatbot (many experts mentioned "Bürokratt," the Estonian AI-based virtual assistant offering a comprehensive channel for accessing public informative services). Indeed, experts believe it is easier to apply AI to innovate communication with citizens, particularly between citizens and PAs, than the internal PA procedures. Most promising opportunities in the Italian context are related to the introduction of AI services for making decisions based on data analysis and to predictive analysis to anticipate issues and malfunction (e.g., in the healthcare and mobility sectors). Some obstacles in Italy are represented by the lack of a strategic approach to AI ("AI is different and more complex that ICT"); the absence of decisions informed by a rigorous data analysis; the lack of internal specialized professions with technical skills able to develop an AI solution and have a clear understanding of the design process, which results in public administration outsourcing of public services to external suppliers; and the lack of rigorous data ethics. Most cited risks are related to the use of controversial biometric technologies (see the Brescia controversy) or they may originate from errors in the AI outcome (see the scandal related to the misapplication of algorithms to spot childcare benefit fraud in the Netherlands).

Experts emphasize how in the Italian context, people are highly discouraged from using advanced systems, especially in public services, because citizens display a general lack of trust, considering the public administration old and stale; therefore, they fear both the inability of such systems to perform properly and their security aspects. Paradoxically, they say, people trust private services more than public ones.

Moreover, some experts state that certain attempts at incorporating AI applications into Italian public services have already begun, even if in a less advanced way than in other European countries. Unfortunately, these pilots are isolated examples, disconnected from the more general public context. Nowadays, the use of AI in the Italian public sector aims to improve the internal side of some public administration systems, such as increasing the level of efficiency, effectiveness, and precision in tax checking; tax evasion fraud detection; monitoring territorial data documentation analysis, etc. Other experts mention an application developed by the Italian Institute for Social Security (INPS) using an AI-powered system for the classification and automatic sorting of certified e-mails. They also mention the need to develop managerial, systemic, and synergistic competences within public administrations, as well as communicative skills to relate with the general public.

The interviewees emphasized, for example, the need to train citizens how to interact and collaborate with AI (with a focus on AI policies and algorithm-critical literacy) to increase citizens' awareness and perceptions of and engagement with data processing and functioning. Therefore, a progressive and well-thought-out introduction to AI in the public sector seems the best approach.

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In conclusion, three main principles inform the social imaginary of public sector managers and designers. Firstly, PA is seen as a "non-competitive context", therefore innovation should promote public interests, but this approach differs from private companies' commercial interests, which actually drive the development of public services. This consideration is connected to a shared awareness among experts that the public sector deals with citizens' trust; therefore, the introduction of AI to the public sector should follow a vigilant and gradual approach.

A second consideration revolves around organizational issues; indeed, several experts mention AI should be conceived as an "organizational agent," as it modifies the relationship between humans (civil servants and citizens) and computers; this consideration is related to the need for a cultural transformation and a "change management process" to face the organizational changes that AI adoption will produce. Further, experts also claim that AI management requires professionals with design and sociological skills.

The third topic they mention is the need of engaging citizens in public services design, adopting a service design approach based on mapping communities and citizens' actual needs and behaviors. For this reason, they argue in favor of several principles of human-centered design, such as engaging citizens in co-design processes and collecting feedback on prototypes. Moreover, interviewees emphasized that citizens must be trained to collaborate with AI and receive transparent information about policies, including how specific AI algorithms function.

Indeed, citizens need not only to be aware of when data are collected and for what purposes, but they should also be able to make informed decisions about sharing their data.

5. Conclusions

The analysis of European and Italian policies recognizes AI as a transformative force, impacting both the economic sphere and societal challenges. According to public policies, the public sector is a pioneering field, as it can foster a culture of innovation and experimentation. However, the introduction of AI to the public sector presents many challenges in the regulatory and technical domains; moreover, its application must also adhere to several important principles (transparency, accountability, fairness, reliability, inclusiveness, and collaboration).

The analysis of public sector AI experts' opinions affirmed the importance of considering public service a non-competitive field; therefore, social innovation should be conducted gradually and following public interests. Moreover, they advocate for a human-centered design approach in the implementation of AI to map users' needs and design useful public services.

We noticed a gap between public policies and AI experts' social imaginaries. For example, the need for a human-centered design approach emerges in a highly fragmented way, both in the EU and in the Italian public policies. Indeed, this participatory approach is only mentioned as a useful tool to improve collaborative

activities, to ensure respect for human rights, to avoid discrimination and biases from AI systems, and to reinforce citizens' digital skills. Interestingly, Italian public policies claim AI use in the public sector may improve the user experience, but policies do not mention the need to design and implement AI solutions considering citizens' related perceptions, fears, and emotions. Therefore, by adopting Castoriadis's theoretical framework in relation to the use of AI in the public sector, we notice an opposition between the *heteronomous imagination*, the one imposed by public policies, and the *autonomous imagination*, claimed by experts and based on citizens' needs and perceptions. More specifically, public policies focus more on the importance of creating shared standards, as well as the related (technological) infrastructures. Even when they mention the importance of listening to citizens' needs, they primarily adopt a macroscopic gaze. As a result, public policy implementation does not adequately rely on analysis of citizens' specific fears and desires in relation to AI use, and it is not concerned with designing the most suitable methods of interaction. This heteronomous approach tends also to pay less attention to the wider social and cultural contexts related to AI implementation; further, it does not support extended and critical analysis of the issues that AI solutions may contribute to solving, and it also does not support the involvement of stakeholders in the design of AI solutions. Conversely, the autonomous imagination, claimed by experts and young adults (Opromolla et al., 2024), asks for a more tailored approach focused on citizens' needs, including emotional ones, and expectations. As one expert argues, an effective AI solution should be designed according to prevalent approaches and people's perceptions.

Human-centered design is one approach increasingly being applied in social research to implement technical and social innovations. More specifically, it provides useful insights for mapping the social impacts of a given solution and the related power dynamics to improve digital interfaces features and to reinforce critical skills for consciously interacting with socio-technical systems. Lupton (2018), for example, uses the expression design sociology (and, in particular, the *design through sociology* approach) to refer to the application of design methods and tools in sociology, aiming "to understand people's engagements with objects, systems and services, better engage publics and other stakeholders, work towards social change, and identify and intervene in futures" (pp. 2–3). That is, human-centered design focuses on four key principles: *people centricity*, i.e., the analysis of people's experience within the context in which they act to understand the way they behave, their needs, and what is meaningful to them; *understanding and solving the right problems*, so the main issues and challenges for specific people can be addressed and positive outcomes reached; *everything is a system*, meaning a digital interface is part of a more complex system and is interconnected with other parts; and *small interventions*, necessitating the iterative adaption of the system to peoples' needs (Interaction Design Foundation, 2021). In summary, human-centered design is a participatory approach based on users' engagement for better designs and improved socio-technical systems and for addressing their needs and priorities. Here, we find an important correspondence between the human-centered design approach and the role of the

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autonomous imagination in shaping a new social imaginary, as mentioned by Castoriadis (1975). Indeed, both Castoriadis and the human-centered design approach consider human creativity a valuable resource for social innovation and transformation, and both advocate for citizens' engagement in imagining new social and institutional orders to develop —from the bottom— innovative solutions often in contrast with the official ones defined by the top.

In conclusion, we believe it is essential to apply a human-centered approach to implement AI into the public sector. Indeed, the use of participatory design methods typical of a human-centered design approach would allow the public sector to understand better and integrate the perspectives of many stakeholders (citizens, public employees, policy makers, etc.) to design appropriate solutions easily; to identify more suitable strategies for raising awareness of AI systems; to improve the service according to feedback; and to identify the social impacts of a specific solution.

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