The european 'post-digital' public sphere: foundations of an emerging paradigm in the social sciences

La esfera pública 'post-digital' europea: fundamentos de un paradigma emergente en las ciencias sociales

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Abstract

The present study investigates the evolution of public institutional communication in the European Union in the context of accelerating digital transformation. It introduces a conceptual framework for understanding the emergence of a 'post-digital' European public sphere, where digital technologies –rather than becoming obsolete– are deeply integrated into human-machine interactions. A key driver of this shift is generative artificial intelligence (AI), which increasingly mediates public discourse and governance processes. The research adopts a qualitative methodology based on expert interviews, examining how AI-driven systems are transforming institutional communication practices and reshaping citizen participation within the EU's multilevel governance and regulatory environment. Findings show that EU institutions are progressively integrating AI tools, such as chatbots, into their communication strategies to enhance efficiency and citizen engagement. However, this transformation raises critical challenges, including algorithmic bias, transparency, ethical governance, and democratic accountability. The discussion addresses the epistemological implications of AI integration, highlighting how digital automation is influencing both theoretical approaches and research methodologies in the social sciences. The study contributes to a deeper understanding of the socio-technical dynamics underpinning the EU's evolving public communication and the broader consequences of AI-driven governance in a post-digital context.

Keywords: algorithmic governance, artificial intelligence, citizen engagement, public institutional communication, European Union.

Resumen

El presente estudio investiga la evolución de la comunicación institucional pública en la Unión Europea en el contexto de una acelerada transformación digital. Introduce un marco conceptual para comprender la aparición de una esfera pública europea "posdigital", en la que las tecnologías digitales –en lugar de volverse obsoletas– están profundamente integradas en las interacciones entre humanos y máquinas. Un factor clave de este cambio es la inteligencia artificial generativa (IA), que media cada vez más el discurso público y los procesos de gobernanza. La investigación adopta una metodología cualitativa basada en entrevistas a expertos, y examina cómo los sistemas impulsados por IA están transformando las prácticas de comunicación institucional y reformulando la participación ciudadana dentro del entorno normativo y de gobernanza multinivel de la UE. Los hallazgos muestran que las instituciones de la UE están integrando progresivamente herramientas de IA, como los chatbots, en sus estrategias de comunicación para mejorar la eficiencia y el compromiso ciudadano. Sin embargo, esta transformación plantea desafíos críticos, como el sesgo algorítmico, la transparencia, la gobernanza ética y la rendición de cuentas democrática. La discusión aborda las implicaciones epistemológicas de la integración de la IA, destacando cómo la automatización digital está influyendo en los enfoques teóricos y en las metodologías de investigación en las ciencias sociales. El estudio contribuye a una comprensión más profunda de las dinámicas sociotécnicas que sustentan la evolución de la comunicación pública de la UE y las consecuencias más amplias de la gobernanza impulsada por IA en un contexto posdigital.

Palabras clave: gobernanza algorítmica, inteligencia artificial, participación ciudadana, comunicación institucional pública, Unión Europea.

Summary

1. Introduction | 2. Background | 2.1. A digital-centered proposal for the periodization of European public institutional communication evolution | 2. 2. The infrastructure of the European public institutional communication ecosystem in the 'post-digital' era | 2. 3. The European public sphere: definition of a multilevel concept | 2. 4. The transformation of the European public sphere in digital environments | 3. Aims and methods | 4. Findings and discussion | 4. 1. European public institutional communication and AI: institutional cautiousness | 4. 2. European public institutional communication and AI: grassroot innovation | 4. 3. The 'post-digital' European public sphere | 5. Conclusions | References.

1. Introduction

The European Union (EU) is a '*sui generis*' political entity, more integrated than a traditional international organization, yet lacking the full cohesion of a nation-state. Born from a post-war vision of unity, the EU has pursued integration while navigating the tension between national sovereignty and supranational authority (Parito, 2012).

As the project matured, the need to engage citizens became increasingly urgent. Early communication efforts were top-down, targeting elites and reinforcing institutional legitimacy through technocratic discourse. Broader public engagement was limited.

By the late 1990s, communication policy began shifting toward citizens, reflecting and responding to the EU's persistent democratic deficit (Pasquino, 2002). From the early 2000s onward, EU institutions invested in strategies to foster a European public sphere through improved transparency, dialogue and participation. While progress has been made, the EPS remains uneven and contested, constrained by linguistic fragmentation and nationalized media systems. While offering new opportunities for engagement, these technologies have also revealed significant vulnerabilities, including disinformation and algorithmic bias, both of which undermine public trust in institutions.

The recent rise of generative artificial intelligence (AI) marks a new phase in this evolution. In the EU, its deployment is framed by a dual commitment to regulation and human-centered design (Chiarella, 2023; Dumančić, 2021; Floridi, 2021; Kalėda, 2023; Van Noordt & Misuraca, 2022).

This study explores how digital transformation –particularly the rise of AI, especially in its generative forms– has reshaped EU public communication and its implications for the European public sphere, understood here as emergent and adaptive. It introduces the concept of a 'post-digital' condition to describe a phase in which digital technologies are no longer external tools, but deeply embedded in communicative, institutional and epistemic structures. The central hypothesis is that this condition alters not only communication practices but the very architecture of democratic interaction in the EU, including public opinion dynamics.

2. Background

2.1. A digital-centered proposal for the periodization of European public institutional communication evolution

European public institutional communication refers to a multilevel and multi-actor transnational framework through which EU institutions and related agencies disseminate verified and reliable information on European issues, ultimately targeting citizens (Lovari & Belluati, 2023).

European public institutional communication refers to a multilevel, multi-actor transnational framework through which EU institutions and related agencies disseminate reliable, verified information on European affairs, ultimately targeting citizens (*ibidem*). It fulfills key functions: informing the public, fostering participation, building trust in EU institutions and reinforcing shared values (Smillie & Scharfbillig, 2024). As such, it constitutes the infrastructure underpinning the European public sphere. This ecosystem is dynamic, shaped by ongoing socio-political and technological changes.

Initially marked by a centralized, top-down model –characterized by expert-oriented, technical language– it has progressively evolved toward a more interactive and citizen-oriented approach (Parito, 2012; Radaelli, 2017). The digital transition of the early 2000s accelerated this shift, with blogs, social media and participatory platforms fostering decentralization and engagement (D'Ambrosi, 2019). More recently, the diffusion of AI and algorithmic technologies has further transformed public sector communication practices (Van Noordt & Misuraca, 2022). Building on this premise, this study argues for a digital-centered periodization of European public institutional communication, identifying three key phases: a 'pre-digital' phase (1951-2006), marked by top-down, unidirectional messaging; a 'digital' phase (2006-2020), characterized by interactivity and decentralization; and a 'post-digital' phase (2020-present), defined by AI-driven, personalized and data-informed strategies. This latest phase, while expanding participatory and technologically mediated models of communication, also demands critical reflection on the ethical implications and responsible use of advanced technologies.

2.1.1. The 'pre-digital' phase (1951-2006)

In the early decades of European integration, EU public communication followed a centralized, top-down model aimed primarily at political elites and national institutions, with limited engagement of citizens (Dumoulin & Bitsch, 2007). It served a legitimizing function and relied heavily on technical language, reinforcing perceptions of the EU as complex, distant and technocratic (Belluati, 2021; Radaelli, 2017). This approach aligned with the condition of 'permissive consensus' (1950s-1980s), during which integration proceeded with minimal public scrutiny or contestation. Citizens largely entrusted decisions to political representatives, reflecting broad but passive support for the European project. This dynamic began to shift with the Maastricht Treaty (1992), which introduced a political dimension to integration, including concepts such as European citizenship and democratic legitimacy. As the EU's role expanded, public awareness grew and political contestation increased thus marking the onset of the 'constraining dissensus' (Hooghe & Marks, 2009).

Referenda outcomes, such as Denmark's rejection of Maastricht (1992) and the narrow French approval of the European Constitution ('*petit oui*'), signaled growing skepticism (Belluati, 2021; Pasquino, 2002). Later rejections of the Nice Treaty in Ireland (2001) and the constitutional treaty in France and the Netherlands (2005) confirmed the erosion of passive support and the widening gap between institutional discourse and public sentiment.

In response, EU institutions began to reconceptualize communication as a strategic policy tool. The *Priority Information Actions for European Citizens* program (*PRINCE*) launched in 1995 sought to raise awareness and foster public engagement with key issues regarding European integration, particularly in areas such as the common currency and the single market, but remained largely promotional.

That same year, the launch of *Server Europa* marked an early digital initiative, yet retained a unidirectional logic, prioritizing information provision over participation. The growing need for more inclusive governance models culminated in the *White Paper on Governance* (2001), which laid the foundations for citizen consultations and the *Plan D for Democracy, Dialogue and Debate* (2005), which aimed to foster a European public sphere. These efforts signaled a gradual shift toward interactive, digitally mediated communication, setting the stage for transformations in the post-2006 era (D'Ambrosi, 2019; Parito, 2012).

2.1.2. The digital phase (2006-2020)

The digital phase of EU public institutional communication began in 2006 with the publication of the *White Paper on a European Communication Policy*. This document marked a strategic shift, placing digitalization at the core of institutional outreach and redefining communication as a participatory and bidirectional process. It catalyzed the transition from the top-down, unidirectional model of the pre-digital era to a more open, decentralized and interactive paradigm. Digitalization was framed as a transformative force, enabling inclusivity and citizen engagement, while also raising concerns about media pluralism, political disengagement and equitable access.

The *White Paper* also introduced the concept of a European Public Sphere as a normative horizon capable of counteracting the Euroscepticism associated with 'constraining dissensus', positioning public communication as its key driver. This strategic framework informed subsequent initiatives such as *Communicating Europe in Partnership* (2007) and the *European Digital Agenda* (EDA, 2010, updated 2015). As one of the flagship initiatives of *Europe 2020*, the EDA promoted innovation-driven growth via ICTs, modernizing public service delivery and embedding communication within a broader digital single market. This phase also witnessed the institutional adoption of social media platforms (e.g., *Facebook*, *Instagram*, previously *Twitter* and now *X*) and participatory tools like *Have Your Say*, *Futurium* and *Together.eu*, reflecting a commitment to transparency and dialogic engagement.

However, persistent challenges remain. Structural issues of accessibility, inclusiveness and representativity continue to shape the digital communication landscape. The proliferation of disinformation, algorithmic amplification and data exploitation –epitomized by the *Cambridge Analytica* scandal (2018)– posing significant risks to the stability of democratic institutions and the preservation of public trust (Hennen, 2020; Zuboff, 2019). These risks are intensified by hybrid threats that blend disinformation, cyberattacks and political interference, undermining institutional trust and democratic resilience. While these challenges are increasingly recognized, their long-term impact on public communication and governance requires further study, particularly as AI

technologies redefine information flows, decision-making and citizen-institution interactions in a rapidly evolving digital ecosystem.

2.1.3. The 'post-digital' phase (2020-onward)

The COVID-19 pandemic marked a critical inflection point in EU public communication, revealing the limitations of digital tools in addressing disinformation, enabling institutional responsiveness and fostering citizen engagement. This rupture tempered earlier techno-optimism, prompting a more critical understanding of digitalization as a dual force, simultaneously enabling and constraining democratic processes. Digital technologies are no longer perceived as external instruments but as embedded infrastructures that shape institutional-citizen interactions in everyday governance.

Accelerated by advances in artificial intelligence, this shift signals the emergence of a 'post-digital' condition, defined not by the obsolescence of digitalization but by its deep entrenchment in socio-political systems. The transition is as much epistemological and cultural as it is technological, requiring digital governance that is transparent, accountable and ethically grounded.

At the institutional level, this transformation is embodied in recent regulatory frameworks including the *Digital Services Act* and the *Digital Markets Act* (2022), the *AI Act* (2024) and the *European Media Freedom Act* (2024). These instruments reflect an effort to reconcile technological innovation with fundamental rights and democratic principles, counterbalancing market-driven logics with public interest imperatives.

Whereas earlier phases emphasized access and connectivity, the 'post-digital' era foregrounds the ethical, political and social dimensions of digital infrastructures. Communication strategies increasingly rely on AI-mediated tools such as automation, personalization and algorithmic targeting within a multi-level governance ecosystem. 'Institutional chatbots', for instance, enhance immediacy and accessibility but also raise critical concerns around bias, surveillance and the manipulation of information flows.

A defining feature of this phase is the renewed emphasis on the going local approach, the strategic anchoring of communication in territorial and community-based contexts. While previously marginal, this logic has become central to institutional practice.

Initiatives such as the *European Youth Event* (2021), the *Conference on the Future of Europe* (2021), *Building Europe with Local Councillors* (2022) and the new generation of *European Citizens' Panels* (2022) illustrate this shift. These programs reinforce the importance of citizen feedback mechanisms and reflect a consolidated turn toward bottom-up, participatory engagement within a 'post-digital' communicative environment.

2.2 The infrastructure of the European public institutional communication ecosystem in the 'post-digital' era

European public institutional communication is inherently dynamic and significant shifts among the actors shaping its ecosystem have occurred during the transition from the pre-digital to the 'post-digital' phase. Building on the study by Lovari and Belluati (2023), this paper delineates the infrastructure of the European public institutional communication ecosystem in the 'post-digital' era, defining it as a multi-actor, multi-level model organized into clusters around a central European core (Figure 1).

Through a process of qualitative operationalization –grounded in the specific indicators of institutional legitimacy, the degree of directness in communication, scope and scale of influence, content mediation and agenda-setting, organizational structure and operational framework, as well as temporal dynamics and responsiveness– it becomes evident that operationalization has been defined through these categories, which, in turn, are derived from a critical literature review (Auel &Tiemann, 2020; D'Ambrosi, 2019; Hennen, 2020; Lovari & Belluati, 2023; Parito, 2012).

Based on this framework, the study identifies key actors and situates them across three distinct levels of influence in the disintermediation of European public institutional communication in the 'post-digital' era: the institutional level, the intermediary level and the external stakeholder level.

Figure 1. The infrastructure of the European public institutional communication ecosystem
in the 'post-digital' era
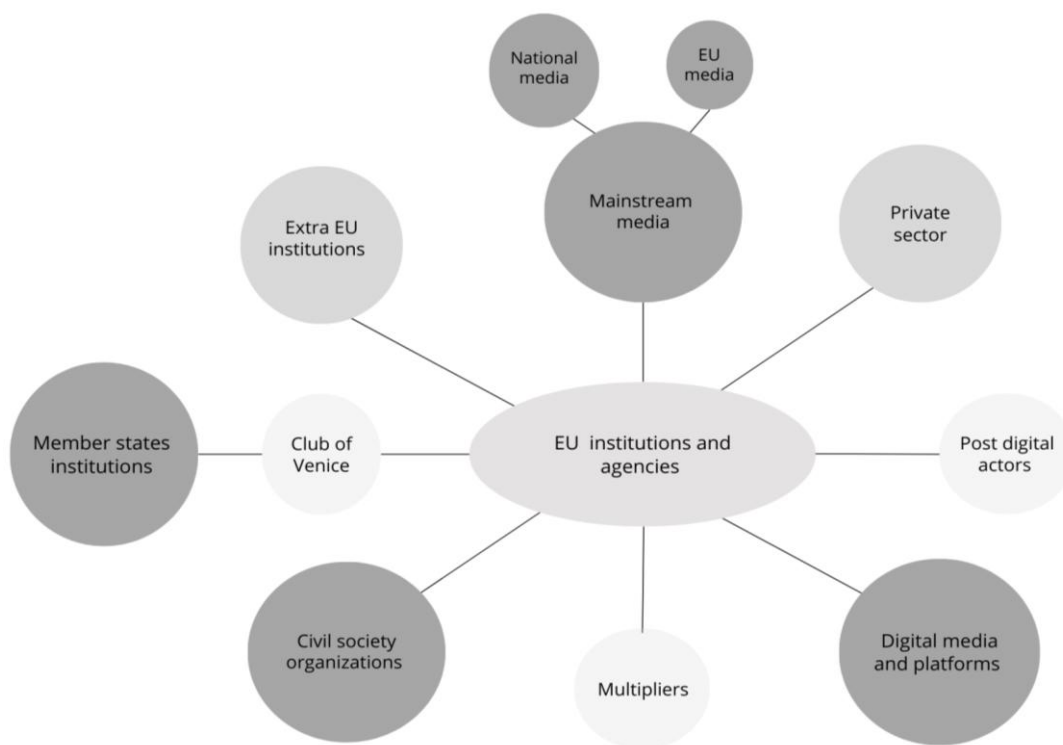
Source. Own elaboration.

At the core of the ecosystem lies the institutional level that includes the so-called 'European institutional triangle' –comprising the European Commission, the European Parliament and the European Council– augmented by European agencies. Each institution employs its dedicated Directorate-General for Communication (DG COMM) to coordinate external public communication strategies. Then, the intermediary level comprises actors that bridge institutional communication from the European Union to citizens by mediating, amplifying and sometimes transforming institutional messages. The concept of bias toward technicality, which emerged during the pre-digital phase of institutional communication and was analyzed earlier in this study, provides a foundation for understanding the role of intermediaries.

These actors play a crucial role in disintermediating institutional messages, ensuring that EU communication becomes more accessible and comprehensible to citizens. In the 'post-digital' era, the intermediary level of disintermediation within the public institutional communication ecosystem includes member state institutions, which adapt and contextualize European communications for national audiences.

It also encompasses civil society organizations (CSOs) –such as NGOs, think tanks and lobbying groups– act as counter-publics. As such they offer counter-narratives and critical perspectives on the EU. These actors play a key role in counteracting the self-referential nature that characterized the early phases of EU communication, reinforcing citizen feedback mechanismsas a defining feature of the 'post-digital' phase of European public institutional communication.

Moreover, mainstream media, differentiated into European and national outlets, serve as essential conduits for communicating Europe by translating institutional messages to citizens. European-focused transnational media, such as *Euractiv, Politico Europe, Euronews* and *Europe by Satellite*, provide broad coverage of EU affairs, ensuring a pan-European perspective on institutional communication.

In contrast, national mainstream media remain dominant in shaping public perception of European issues within domestic contexts, often filtering EU-related discourse through national political and editorial priorities.

Within the intermediary level, digital media and online platforms play a crucial role in disseminating institutional messages in digital environments. Digital environments, similarly to CSOs serve as counter-publics to the established institutional discourse. These actors have become major sources of information on European institutional issues for many citizens, shaping public perception of European issues.

Finally, the external stakeholder level comprises actors that exert influence beyond the immediate institutional and intermediary circles. This includes extra-EU institutions (e.g., the Council of Europe, NATO and the United Nations), which contribute to reinforcing European public institutional communication within a broader global context, as well as private sector entities –such as corporations and business associations, collectively referred to here as the private sector– which shape the regulatory framework of the digital infrastructure underpinning EU-citizen interactions and play a role in regulating mainstream media. Informal networks such as the Club of Venice and various multipliers, who leverage the potential of digital environments to their advantage, including EU initiative ambassadors, content creators and influencers, play a crucial role in translating complex policy discourse into accessible formats. Multipliers are intended here as the 'post-digital' adaptation of Lazarsfeld and Katz's notion of opinion leaders.

Overall, this tripartite framework aims to provide a coherent and systematic approach to enhancing the understanding of the dynamics of European public institutional communication in the 'post-digital' era, with a specific focus on the actors involved and their respective roles within the evolving communication landscape.

2.3 The European public sphere: definition of a multilevel concept

The concept of the European public sphere (EPS) emerges from adapting public sphere theory to the EU's unique structural and political configuration. Historically, the public sphere has evolved from physical deliberative spaces, such as the Greek agorà, to more centralized, state-controlled settings under absolutist monarchies and later to autonomous arenas of critical debate in seventeenth and eighteenth-century Western democracies.

Salons and coffee houses fostered communicative environments in which public opinion could form independently of state control. Jürgen Habermas's work is central to this genealogy. He conceptualizes the political public sphere as a space where citizens, guided by communicative rationality, deliberate on state affairs and thereby hold political authority accountable (Habermas, 1991; 1992). Positioned between private life and institutional power, the public sphere presupposes a shared linguistic and cultural context and functions through media as intermediaries of public discourse, although this ideal frequently diverges from empirical realities.

Transposing this model to the EU context poses significant challenges. The EU lacks a cohesive political identity and a unified demos, complicating the emergence of a shared communicative space (Hennen, 2020). Scholars remain divided: some argue for the gradual development of a transnational sphere of debate, while others highlight persistent obstacles such as linguistic diversity, media fragmentation and the dominance of national narratives (D'Ambrosi, 2019; Parito, 2012; Rivas-de-Roca & García-Gordillo, 2022).

This paper aligns with perspectives that view the EPS as an emerging yet incomplete construct. Despite definitional variation, communication remains the common denominator across conceptualizations (Rivas-de-Roca & García-Gordillo, 2022). Trenz (2002, p. 20) defines the EPS as "an intersubjectively shared, communicatively constructed system of mutual observance", understood as both a space and a collective shaped through communication. In this view, the EPS enables citizens to observe and engage in EU-level political processes (Trenz, 2007). Some scholars, drawing on Habermas, envision the EPS as a unified sphere for rational discourse and democratic legitimacy. Others adopt a pluralist approach, conceiving it as a network of interconnected but fragmented national public spheres (Rivas-de-Roca & García-Gordillo, 2022).

Despite these differences, two features are widely acknowledged: the EPS is both multi-actor and multi-level. It includes EU institutions, national governments, media, civil society and citizens, operating across local, regional, national and supranational levels (D'Ambrosi, 2019; Parito, 2012). This reflects the EU's model of multilevel governance, where decision-making spans interconnected institutional layers. Ultimately, the EPS is a dynamic framework, responsive to shifting sociopolitical and technological conditions. The growing role of digital platforms in shaping information flows and participation underscores the need to reassess how digital transformation is redefining the structure and function of the public sphere in Europe (Hennen, 2020).

2.4. The transformation of the European public sphere in digital environments

Although many have studied how digitalization affects the public sphere, research on the European context is still limited, causing some conceptual confusion. Habermas himself (2023) has revisited his theory in light of digital transformations, acknowledging both opportunities and risks for dematerialized and de-spatialized engagement and exchange among citizens acting as (inter)connected networked publics (Hennen, 2020; Seeliger & Sevignani, 2022). These environments support dialogic communication between citizens and institutions and among citizens themselves, expanding the modalities and frequency of their engagement in the public sphere (López-García, 2015; Rivas-de-Roca & García-Gordillo, 2022).

However, issues of access, inclusion and platform governance present substantial barriers to meaningful participation, particularly beyond established political and institutional elites. This study builds on the periodization of EU public communication to argue that the digital phase has provided the infrastructural foundation for the digital European public sphere (DEPS) to rise. While the public sphere's deliberative function remains intact, digital platforms have exponentially expanded the channels through which public debate occurs.

E-participatory platforms, online consultations and social media have collectively contributed to the 'platformization' of public participation. However, their predominantly top-down design often limits outreach and engagement outside the so-called 'European bubble'.

Like the 'offline' EPS, the DEPS is multi-actor and multi-level in nature, with digital technologies reinforcing this complexity. New actors, including fact-checking organizations, have entered the communicative ecosystem, responding to the spread of disinformation in digital environments and playing a growing role in safeguarding discourse quality (Hennen, 2020).

While digital platforms have the potential to foster transnational dialogue and strengthen citizen engagement with EU policymaking, they have also disrupted traditional gatekeeping, increasing exposure to disinformation, polarization and algorithm-driven echo chambers (*ibidem*). Within this context, the DEPS stands at a critical juncture: it holds the potential to foster innovative communication and greater civic participation while simultaneously contending with structural vulnerabilities that threaten its coherence and legitimacy. As the EU progresses in its digital transition, characterized by the increasing integration of AI, it is crucial to consider how these emerging technologies will reshape dynamics of its public sphere, reassessing public sphere theory within a 'post-digital', post-truth and postmodern context becomes imperative (Conrad , 2023; Kitsara, 2022; Ng, 2021; Van Noordt & Misuraca, 2022).

3. Aims and method

Given the limited research on the impact of AI on European public institutional communication and the public sphere, this study examines the challenges associated with this transformation from both institutional and citizen perspectives. The study aims to explore these dynamics by addressing the following research questions:

RQ₁: Do digital technologies and AI impact the roles of actors as well as the frameworks and functions of European public institutional communication? If so, to what extent?
RQ₂: Does the digital transition, including the integration of AI, impact the European public sphere? If so, to what extent?

A qualitative research design was employed, utilizing two sets of semi-structured expert interviews. This approach enables an in-depth exploration of the topic while maintaining a balance between flexibility and the need for a structured framework (Glaser & Strauss, 1967; Herzog & Ali, 2015). However, the lack of standardized questions presents a trade-off, as it limits the generalizability of the findings (Corbetta, 2003; Hays & McKibben, 2021). The study involved two sets of interviews, capturing both institutional (top-down) and CSOs (bottom-up) perspectives.

Building upon the distinction made by Von Soest (2023), the first group represents the 'inside experts', i.e those who make the decisions. The second group consists of the actors addressed by these decisions, who, in the context of this paper, are tasked with interpreting and implementing policy outputs in real-world settings.

A purposive maximum variation sampling strategy was employed, considering participants' functions and levels of action. Interviews continued until thematic saturation was reached, ensuring comprehensive coverage of key themes as defined in the interview guide (Brall , 2019).

The questions were structured around four core thematic axes, identified through critical literature review: a) European public institutional communication (strategies, objectives and challenges), b) citizen participation, c) information, d) digital and AI. While the framework remained consistent across both interview sets, questions were adapted to reflect each group's role in shaping European public institutional communication and the EPS.

Interviews were conducted in English, Italian and French, according to participant needs. Following a pilot test, they were audio-recorded and transcribed *verbatim* to ensure linguistic fidelity. The CSOs interviews took place between May and June 2024 –before the European Parliament's elections– due to participants' involvement in the '*Use Your Vote*' public institutional communication campaign, while the institutional interviews continued until thematic saturation was reached in January 2025, meaning that a sufficient number of participants had been interviewed to fully uncover key aspects of the investigated topic (Brall, 2019). "Saturation means that no additional data are being found whereby the sociologist can develop properties of the category" (Glaser & Strauss, 1967, p. 61). Interview durations ranged from 28 minutes to 1 hour and 24 minutes.

Data were analyzed through qualitative content analysis in two phases: first, separately, to identify key themes within institutional and civil society groups and then comparatively, to examine alignments or discrepancies between institutional communication strategies and citizen perceptions. A structured codebook was developed, integrating deductive coding, based on insights from the literature and inductive coding, derived from the data. This approach ensured a systematic analysis of trends in the evolving landscape of European public institutional communication. Both interview guides were structured around specific thematic areas to support the subsequent qualitative content analysis, which was conducted manually. These themes were defined based on a review of the relevant literature and organized into three main categories: a) communication, b) information and c) participation. These three pillars were previously identified in the paper as the foundational elements of the public sphere as a social construct. Then, an additional theme was included to explore the concept of the 'post-digital'. This theme encompassed references to disinformation, algorithmic governance and bias, the overlap between reasoned public institutional communication and emotionally driven political communication, as well as the role of AI and 'post-digital' actors –such as chatbots– for institutional and civic purposes. Because of this specific aspect the interview guide was structured on it. For each theme 2/3 open ended questions have been defined. Based on this an amount of 10 primary questions (open ended) per each interview following well established methodology in social sciences (Corbetta, 2003).

Probing questions have been added when participants cited relevant aspects without further explanation. This, based on well established approaches, enabled more insightful information to emerge during the interview thus enabling for a more accurate analysis (*ibidem*). To facilitate comparison between the two levels of analysis –top-down and bottom-up– the same thematic framework was used for both, while the interview questions were adapted to suit the different profiles of the two sets of expert participants.

The analysis proceeded in three interconnected phases. Initially, at the explicit level, the thematic categories outlined in the interview guide were applied deductively to code content that directly addressed the predefined themes. This provided a structured foundation for interpretation.

The second phase, operating at the implicit level, aimed to uncover more nuanced and subtle insights that extended beyond the interview guide's structure. Here, an inductive approach was employed to identify emerging themes, thereby minimizing the risk of bias inherent in a purely deductive framework.

Finally, the positioning level focused on examining participants' stances and perspectives concerning the complex relationship between AI, European communication strategies and opportunities for citizen engagement in contemporary Europe. This final analytical layer was essential for highlighting potential directions for future research and understanding the broader implications of the findings.

Two pilot interviews were conducted, one for each set of participants and adjustments were done accordingly to test the smoothness of the track and assess its clarity. These were included in the final sample as no major changes had to be done after the pilot test. Additionally, a personal research notebook was maintained throughout the entire data collection process, in line with previous studies embedded in social sciences. This notebook was used to document key observations, non verbal aspects of the interview and to track insights as they emerged, helping identify the point at which thematic saturation was reached.

4. Findings and discussion

In total, participants from seven European countries were included, covering Western Europe (Germany, France, Belgium), Southern Europe (Italy, Spain), Eastern Europe (Hungary) and Northern Europe (Finland). The first set of expert interviews (Table1, *n=25*) involved a diverse range of institutional stakeholders, including scholars (*n=5*), institutional representatives comprising civil servants and public communicators (*n=14*), correspondent journalists from Bruxelles (*n=4*), communication practitioners (*n=2*). These participants operate at different levels of EU governance, with some at only the European (*n=10*), other only in national contexts (*n=1*) and some engaging at both national and European levels (*n=14*). This group provided insights into how digital technologies, particularly AI, are conceptualized, integrated and regulated within European public institutional communication.

Table 1. Overview of participants. Expert interviews set n.1, 'inside experts'

Participant	Expert category	Level of EU governance
P01	Scholar	National/European
P02	Scholar	National/European
P03	Scholar	National
P04	Civil servant	National/European
P05	Civil servant	National
P06	Civil servant	National
P07	Civil servant	National/European
P08	Civil servant	National/European
P09	Civil servant	National/European
P10	Practitioner	National/European
P11	Civil servant	European
P12	Scholar	European
P13	Civil servant	National/European
P14	Journalist	National
P15	Civil servant	European
P16	Practitioner	European
P17	Journalist	National/European
P18	Civil servant	European
P19	Journalist	National/European
P20	Journalist	European
P21	Scholar	European
P22	Civil servant	European
P23	Civil servant	National/European
P24	Civil servant	European
P25	Civil servant	European

Source. Own elaboration.

The second set (Table 2, *n=35*) focused on youth-led CSOs, selected due to their role as a primary target of European public institutional communication policies and operating at regional and local levels. The sample included organisations that participated in the 2024 European Youth Event in Forlì (*n=21*) sustaining the '*Use Your Vote*' public institutional communication campaign for the 2024 European Parliament elections. The majority of these CSOs were based in Italy (*n=28*), while others operated across Europe (*n=7)*. Participants represented organisations functioning at EU (*n=7*), national (*n=14*) and regional/local levels (*n=14*).

Table 2. Overview of participants. Expert interviews set n.2, 'outside experts'

Participant	Level of EU governance	EYE 2024 attendance
P01	Regional/Local	X
P02	European	X
P03	European	–
P04	National	X
P05	Regional/Local	–
P06	Regional/Local	X
P07	Regional/Local	–
P08	National	–
P09	National	–
P10	Regional/Local	–
P11	Regional/Local	–
P12	Regional/Local	–
P13	National	X
P14	National	X
P15	National	X
P16	National	–
P17	National	X
P18	Regional/Local	X
P19	National	X
P20	European	X
P21	European	–
P22	European	–
P23	National	–
P24	Regional/Local	X
P25	National	X
P26	National	–
P27	National	–
P28	Regional/Local	–
P29	National	X
P30	Regional/Local	–
P31	European	–
P32	Regional/Local	–
P33	National	–
P34	Regional/Local	–
P35	National	X

Source. Own elaboration.

Referring to *RQ1 — Do digital technologies and AI impact the roles of actors as well as the frameworks and functions of European public institutional communication?* — the findings reveal two main positions. The first is a stance of institutional caution, primarily expressed by 'inside experts'. The second is a dynamic of grassroots innovation emerging from the 'outside experts'.

4.1. European public institutional communication and AI: institutional cautiousness

Findings showcase that from the point of view of the 'inside experts', digital technologies are widely recognized by as key enablers in the transformation of EU public institutional communication toward a more citizen-oriented and user-friendly model. In particular, digital technology tends to be widely associated with the 'naturalization' of social media as channels of public institutional communication. As reported by an 'inside expert' contending that: "The communication we do on social media at the European Parliament, as well as

through press releases, is definitely becoming more and more user-friendly. Everyone we speak to acknowledges this" [P23]. In this regard, the 'digital turn' in public institutional communication has prompted the experimentation with new formats designed to enhance the accessibility of content for citizens, including infographics, videos and the involvement of multipliers such as content creators and influencers to expand outreach and enhance engagement.

With reference to this particular point, another 'inside expert' noted that: "Obviously the use of digital media has meant that also in terms of the formats used. Even though there is pressure to be more agile, maybe also at least to popularize, because the shorter format social media you would have to be more to the point in a sense" [P07]. Digital tools have played a strategic role in shifting communication practices from traditional, one-way, top-down approaches to more interactive and bidirectional forms of communication. Regarding this specific issue, an 'inside expert' affirmed that: "Since the last elections in 2014 and 2019, there was a change in the European Commission and in DG COMM, that is the Directorate General for Communication and they are working a lot on social media, specifically right now on Instagram, on TikTok and they are trying to develop a more personalized communication" [P01].

Overall, findings highlight a positive correlation between digital technologies and the public institutional communication of the EU, indicating that these domains can be effectively examined from an integrated perspective, as this study aims to do. Digitalization emerges as a unifying thread in the transformation of EU communication practices, recognized –explicitly or implicitly– by all experts involved.

However, while digital tools have enhanced communication strategies and hold the potential to strengthen democratic participation, they have also introduced significant challenges. Manipulation of information flows –as discussed later– and issues of inclusiveness and representativeness may reduce the effectiveness of institutional communication, particularly in reaching audiences beyond the 'European bubble'. Aligned with this view, an 'inside expert' remarked that: "Digital technology can pose a risk, particularly when it is not inclusive. When individuals are left behind, the public sphere inevitably suffers" [P05]. In turn, the limitations in access to digital platforms and tools within the ecosystem of public institutional communication in Europe should be understood in both material and cognitive terms.

One of the study participants, from the expert perspective, cautioned against a risk, noting that: "(…) a lack of infrastructure, limited bandwidth, or insufficient skills to use digital tools can render the digital sphere selective rather than inclusive" [P05].

When it comes to newer technologies such as AI –newer not in terms of their creation or existence, but in their diffusion and experimentation– particularly generative AI, their integration into European public institutional communication strategies remains cautious and continues to be a subject of debate.

Research on the application of AI, particularly generative AI, in the public sector is still relatively scarce compared to studies focused on its use in the private sector. This is due to the fact that practical applications of AI within EU institutions remain limited and largely experimental at this stage.

As a result, it remains a topic of debate that brings both opportunities and challenges that need to be carefully considered. Building on ongoing pilot initiatives at the European level, the integration of AI tools in the public sector presents significant potential to streamline operations and improve the management of time and resources.

Beyond administrative efficiency, AI offers new avenues for enhancing public institutional communication by expanding outreach capabilities and enabling more interactive and responsive engagement with citizens. Among the potential applications of AI in European public institutional communication, 'institutional chatbots' represent a particularly promising –yet still underexplored– frontier.

In this context, an 'inside expert' argued that: "AI, especially in the form of chatbots, is redefining how institutions like the EU interact with citizens. (…) citizens can access information in real time (…). This has the potential to makes EU communication feel more immediate and user-centered" [P08]. Nonetheless, the application of AI continues to be approached with considerable caution by 'inside experts'. For AI to effectively serve the public good, it has to be developed and implemented within a human-centric framework, an objective that represents one of the most significant medium to long-term challenges. In this context, regulation plays a pivotal role. On the legislative side, the AI Act –alongside broader frameworks such as the Digital Services Act and the Digital Markets Act– aims to regulate the development and deployment of digital tools and AI across the EU.

This regulatory framework is not merely a legal necessity but also a safeguard against the broader risks associated with digital technologies. EU-level regulations emphasize that AI systems should be designed to

complement and enhance human capacities, rather than replace human creativity and critical thinking. This ensures that citizens remain at the core of European public institutional communication reducing the risk of potential erosion of human-driven creativity.

This perspective was echoed by an 'inside expert' who underscored the importance of individual agency and digital competence, stating that: "(...) ultimately, the individual remains at the center, but it is the individual who knows how to use these tools effectively, who understands what is at stake, who possesses the necessary skills and who continually updates their knowledge" [P10]. This brings to the forefront critical issues such as skills development, AI literacy, ethical risks, data governance and algorithmic transparency. Integrating AI into citizen-institution interactions requires robust measures to protect individuals' privacy.

Within this framework, a growing debate is emerging around whether public institutions intending to adopt AI should prioritize the development of proprietary systems. Doing so would ensure direct oversight, greater accountability and closer alignment with public values. This concern was further articulated by an 'inside expert', who highlighted that "(...) there's also a big investment to them because the alternative would be to have something which is more controlled by us basically controlled by the public institutions themselves" [P07]. To a certain extent, this is exemplified by ongoing institutional experimentation with chatbots, such as the case of *GPT@EC*, which is currently being tested for internal use by the European Commission.

4.2. European public institutional communication and AI: grassroot innovation

Contrasting with this structured and risk-averse stance, youth-led CSOs demonstrate a more dynamic and experimental approach to digital technologies and AI adoption, particularly generative AI, in public institutional communication. Their perspective is rooted in practice rather than theory: instead of awaiting institutional endorsement, they actively experiment with digital and AI tools to enhance their communication strategies and to move beyond 'one-size-fits-all' strategies, promoting more tailored and context-sensitive engagement.

A notable example of grassroots innovation in the application of digital tools and AI by CSOs can be seen in the involvement of CSOs in supporting the '*Use Your Vote*' public institutional communication campaign for the 2024 European Parliament elections, officially launched by European Parliament Directorate General for Communication to inform, raise awareness and engage. On this occasion, CSOs experimented with the use of digital tools and the experimentation of AI to enhance the production of audiovisual content for social media and to personalize engagement strategies targeting diverse communities across Europe.

All of the CSOs involved in the study mention their presence on social media (*Facebook*, *Geneva*, *Instagram*, *LinkedIn*, *Threads*, *TikTok*, *YouTube* and *X*) and podcasting platforms (*Apple Podcast*, *Google Podcast* and *Spotify*) as a strategic tool for communicating Europe, particularly during election periods, supporting European institutional communication campaigns.

Operating with fewer bureaucratic constraints, CSOs demonstrate greater flexibility in experimenting with emerging technologies, swiftly adapting to new trends. A clear example in this regard is the presence of these actors on *TikTok* –a platform where institutional representation is currently not permitted–where they actively contribute to the sense-making of the European Union through content production.

With specific regard to AI –particularly its generative form– and its application in communication activities, an 'outside expert' emphasized that: "It goes from being a useful tool to becoming a necessary one and that makes a real difference" [P02]. At this experimental stage, CSOs that have explored AI as a form of grassroots innovation in the field of communication have primarily used it to produce audiovisual materials and textual content, such as copy for social media posts.

Findings indicate that, when adopted in communication activities, the most commonly used AI tools are *ChatGPT* for text generation, *Canva AI* for content creation and *Fireflies* for recording and reporting meetings. As for the motivations, the primary objective is to enhance efficiency, thereby increasing the speed and effectiveness of task execution. In this context, another 'outside expert' argued that: "(...) from a personal perspective, I believe that tools such as *ChatGPT* can be valuable in specific contexts, particularly for tasks like brainstorming. When provided with an appropriate prompt, they can function as effective instruments for improving efficiency and saving time" [P19].

Reinforcing this view, another interviewee from the CSO perspective observed that: "(...) artificial intelligence has generated a great deal of enthusiasm among our community. We have produced videos, graphics and a variety of content on this topic, particularly focused on project writing, to be honest" [P24].

However, experimentation for AI's potential for communication activities, does not have to be misunderstood for 'techno-enthusiasm', being this latter here intended as the uncritical adoption of technology. On the contrary, CSOs recognize the limitations of the tool.

While AI is valued for its potential to improve efficiency, the prevailing position among the 'outside experts' who participated in the study is that effective communication cannot be entirely delegated to machines.

Framing the issue from this perspective, an 'outside expert' highlighted that: "(...) when there is a person behind the words, it comes through. There is a clear distinction between a text written by someone who is genuinely passionate about what they are doing and what they are talking about and a text generated by artificial intelligence" [P11].

AI is thus perceived by CSOs as a means of enhancing but not replacing human-driven creativity and contextual sensitivity. On this specific point, 'outside experts' align with 'inside experts' as previously outlined. In cases where AI has not yet been integrated, CSOs demonstrate a greater short-term propensity to adopt it within their communication strategies compared to institutional counterparts. Specifically, an 'outside expert', speaking on behalf of the CSO organization represented, outlined that: "We are not yet working with generative AI, but for sure in the future, I don't know if it will be our cohort or for the next cohort we will lead something" [P21]. Reinforcing this view, another participant from the same bottom-up perspective observed that: "Actually, we haven't made much use of artificial intelligence yet, I think. Not yet, but it's true... I feel that, inevitably, it will gradually become more and more a part of what we do" [P08].

A very limited number of the ''outside experts' involved in the study expressed skepticism and reported no intention of integrating AI to support their activities, with the primary concern being quality over quantity. This reflects a broader apprehension that AI-mediated communication may lead, to some extent, to the production of dehumanized content.

4.3. The 'post-digital' European public sphere

Regarding RQ2 — *Does the digital transition, including the integration of AI, impact the European public sphere? If so, to what extent?* — the question remains both contentious and ambitious, as it is closely tied to the broader debate over the very definition and existence of a European public sphere itself. The study aims to provide a critical exploration of these intertwined issues.

Findings indicate that the institutional effort to foster constructive engagement through communication practices represents a crucial step in the broader and ongoing process of developing a transnational public sphere across the European Union.

Concerning this matter, an 'inside expert' observed that: "We can speak of a European public sphere of a certain kind, one that is still limited to a specific group of people. It can be described as an environment, one that aspires to become more open and inclusive, but which has not yet managed to reach or engage the broader public" [P23]. Another 'inside expert' echoed this standpoint, adding that "(...) let's say that it is a public sphere in Europe, but segmented and localized in 27 different realities" [P22]. The EPS functions not only as a forum for deliberation on shared issues but also as a contested arena in which divergent narratives compete to define truth, authority and legitimacy in the European context.

Some conceptualize the EPS as a functional communicative structure, while others interpret it as an aspirational ideal, emphasizing its normative potential rather than its empirical reality. This contrast reflects the ongoing fragmentation of the European discursive landscape, where national discourses frequently overshadow transnational ones, hindering the emergence of a unified communicative space at the European level. Reflecting this perspective, an 'inside expert', contended that: "(...) it is difficult to speak about a proper European public sphere. I think that there has been some adjustment in this situation but at the same time in the last European Parliament elections we saw once again a situation that some people consider as a second order election" [P01].

Building upon this, findings indicate that the concept of the EPS remains polarized. Nonetheless, there is growing recognition of an emerging, though still embryonic, transnational public sphere in Europe, which is qualitatively distinct from the national public spheres of individual member states. While there is a degree of consensus that a form of public sphere exists in contemporary Europe, significant disagreement persists regarding its shape and structure. This reflects the complexity of the European institutional architecture.

Both 'inside' and 'outside' experts recognize digital innovation as a key driver of transformation in the core dynamics of the EPS, namely communication, information and participation. On this point, an 'inside expert' affirmed that: "(…) with the advent of digital media, not only have formats clearly changed, but also the languages and tones of voice. This is especially crucial for institutional actors, whose operativitùa does not limit themselves to conveying news or information. They need to engage with their citizens" [P05]. Given these conditions –and understanding AI as a further advancement in digital innovation– it is expected that AI will deepen and accelerate ongoing transformations within the EPS.

In this regard, both 'inside' and 'outside' experts involved in the study –despite operating along a spectrum that ranges from institutional caution to grassroots innovation– converge in acknowledging this emerging scenario.

Starting with communication, regulated and human-centred AI can facilitate more immediate, personalized and structured interactions between institutions and citizens, as previously discussed, as well as among citizens themselves. This influence is also likely to extend to the broader dynamics of information dissemination and citizen participation, both of which contribute to shaping the EPS.

With specific regard to the field of information, an 'inside expert' argued that: "The hope –and indeed the objective– is that AI can significantly support those working in the field of information, providing additional tools to streamline tasks that are currently labor-intensive or repetitive. These operations could be delegated to AI, much like what happened with the advent of the web" [P19].

While some adopt an optimistic perspective on the role of AI within the EPS, a more critical viewpoint emphasizes its potentially disruptive impact, particularly concerning the manipulation of information flows. The scientific literature widely acknowledges that disinformation, amplified by deep fakes, the growing complexity of hybrid threats and cyberattacks, spreads rapidly in digital environments. This phenomenon poses significant challenges to democratic deliberation and contributes to a broader crisis of epistemic authority in contemporary Europe, where the legitimacy of knowledge is constantly contested and public trust in institutions is increasingly fragile. As a result, the 'post-digital' EPS is not merely a site for deliberation on matters of collective concern, but also a battleground where competing narratives and counternarratives shape the public's perception of institutional legitimacy.

The manipulation of information flows also extends into 'artificial environments' shaped by AI systems, raising concerns about control, bias and democratic accountability. This concern was echoed by an 'inside expert' stating that: "When I speak with someone, I instinctively form an impression of whether they are telling the truth, lying, exaggerating, or downplaying a particular success. How can such nuanced human perception be explained to a machine?" [P17]. As such, the distortion of information is expected to profoundly affect the communicative rationality underpinning the traditional conception of the public sphere, thereby necessitating a re-evaluation of its archetype in light of contemporary conditions shaped by the 'post-digital' era of European public institutional communication ecosystem and the dynamics of the post-truth era.

Within this framework, the concept of the 'post-digital' EPS, as introduced in this paper, emerges as a promising analytical lens for contemporary social sciences. In this context, the 'post-digital' condition emerges as a crucial analytical lens for understanding how contemporary transformations in the EPS are shaped not only by technological advancements but also by evolving socio-political configurations.

The 'post-digital' EPS is conceptualized here as a hybrid communicative environment in which AI-driven processes intersect with locally embedded forms of public discourse. While the increasing role of AI, particularly generative AI, in shaping European public institutional communication optimizes the flow of information between decision-makers and citizens, it simultaneously raises fundamental concerns regarding the opacity of algorithmic decision-making, the concentration of informational power and the potential erosion of democratic deliberation thus making necessary an 'analog' counterpart to mitigate such potential bias. As a consequence, the 'post-digital' EPS operates through hybrid mechanisms. Its functioning is not solely anchored in digital tools but remains deeply interwoven with offline deliberative practices and grassroots initiatives that sustain the link between public and political discourses and the cultural and territorial contexts in which they emerge.

This interplay suggests that rather than replacing traditional forms of civic engagement, AI-driven communication reshapes and recontextualizes them within a broader ecosystem where institutional frameworks and bottom-up participatory mechanisms coexist in a complex and evolving equilibrium. From this standpoint, an 'outside expert' highlighted that: "(…) definitely, merging online with offline communication and participation practices enable to reach wider audiences and improve engagement in the public sphere" [P01]. The 'post-digital' EPS emerges as a fluid and continuously evolving space, in which the boundaries between public

institutional communication –traditionally grounded in rational-critical discourse– and political communication –increasingly characterized by emotionally charged rhetoric– become increasingly porous. As a result, the epistemic foundations of democratic discourse are subject to ongoing contestation and renegotiation.

Evidence comes from the latest European Parliament's elections. An 'inside expert' reported that, on this occasion: "European Commission President Ursula von der Leyen was present on social media in two distinct roles: as the sitting President at the time and as a candidate, creating an intersection of public and political communication flows" [P16].

Finally, the shift in public attitudes toward the European Union in the 'post-digital' era emerges as a major finding of this study. Identified as a key characteristic of the European public sphere in the 'post-digital' context, this shift reflects a transformation in the perceived sense of belonging to the EU. While traditionally grounded in a symbolic dimension based on shared values, this sense of belonging now appears to increasingly encompass elements of economic convenience.

Moreover, civil society organisations are explicitly acknowledged by European institutions as strategic multipliers, playing a key role in communicating Europe at the local level and fostering citizens' participation in public life. To this purpose, the presence of economic mechanisms that support civic participation, such as European-funded initiatives like Erasmus+, which also serve as a source of funding for CSOs, supports this interpretation. At least, this emerges as relevant finding of the study, indicating the opportunity for CSOs across the EU to operate under the umbrella of communitarian institutions and their programs, benefiting from European resources as primary funding mechanisms for their activities. In alignment with this distinction, an 'outside expert' stated that: "(...) we originally worked with the European Youth Foundation and the Council of Europe" [P34]. This is a significant finding that delineates a major trait of the 'post-digital' EPS as it is conceptualized in this study, in which the sense of belonging to the European Union is being reconfigured and extended beyond a purely symbolic dimension. It points to an emergent shift in the relationship between citizens and EU institutions that is framed here as form of 'utilitarian consensus'.

Building on the historical trajectories of 'permissive consensus' and 'constraining dissensus', this new configuration suggests that citizens increasingly relate to the EU in pragmatic, outcome-oriented terms: they seek tangible benefits and functional advantages, while remaining cautious or disengaged from abstract political commitments and ideational narratives. This evolving pattern is not merely attitudinal but reflects deeper structural transformations in the mediation of European identity and institutional legitimacy in the digital age. Here, public communication, technological infrastructures and affective dynamics converge to shape new modalities of civic engagement. In this context, the notion of 'utilitarian consensus' provides a productive theoretical lens through which to interpret emerging forms of European citizenship that are strategic, mediated and affectively charged. It also opens a fertile avenue for further research into how algorithmic and digital mediation influence both perceptions of the EU and the evolving conditions for democratic legitimacy in an era of post-symbolic integration.

5. Conclusions

The evolution of European public institutional communication and with it the EPS, has unfolded alongside successive waves of digital transformation. This trajectory culminates in what this study defines as the 'post-digital' phase intended as a condition not of technological obsolescence, but of digital integration so pervasive that it becomes an embedded element of everyday communicative ecologies. Digital technologies no longer function merely as external tools; they are infrastructural, shaping human–machine interaction, public discourse and the contours of institutional legitimacy.

The 'post-digital' transformation reflects a double movement. On one side, EU institutions have approached the integration of AI with regulatory caution, testing 'institutional chatbots' and generative systems under human-centric ethical frameworks. On the other, civil society organizations (CSOs) exhibit greater agility and willingness to experiment, deploying AI tools to support participatory practices in grassroots and decentralized environments. This duality underscores the ambivalent nature of AI as both a driver of democratic innovation and a potential vector of risk, particularly in terms of algorithmic bias, epistemic authority and the proliferation of disinformation. These dynamics reveal the hybrid and contested character of the EPS in the age of AI.

Public institutional communication needs to be reconceptualized not as a one-way transmission of information, but as an infrastructural practice that co-produces the conditions for civic participation. In this

context, digital and analog modes of engagement are not oppositional but co-constitutive, reinforcing the relational architecture of the EPS across institutional, national and civic domains. The tripartite model developed in this study, grounded in successive phases of digital transformation, traces a gradual shift toward more inclusive and citizen-centered forms of communication. Yet, the deepening entrenchment of AI-driven infrastructures brings new tensions to the fore: the epistemological status of algorithmically generated content, the affective dimensions of trust in automated interactions and the governance of human–machine interfaces within deliberative spaces. AI thus emerges not as a neutral medium, but as an active agent in shaping meaning, civic experience and democratic accountability. This epistemological shift calls for a strategic recalibration of both institutional practices and democratic imaginaries within the European communicative ecosystem.

The normative framing of AI at the EU level –emphasizing transparency, accountability and human oversight– needs to be complemented by participatory designs that position citizens not merely as end users but as co-creators of public discourse. A critical lever in this transition is AI literacy: cultivating informed, inclusive and reflective engagement with algorithmic systems is essential for maintaining democratic legitimacy in an increasingly automated public sphere.

The findings of this study point to an urgent research agenda. While scholarly interest in the normative and regulatory implications of AI is expanding, substantial gaps remain in understanding how these technologies are experienced, contested and trusted by diverse publics across the Union. The growing use of AI in public service delivery, consultation mechanisms and institutional messaging requires empirical investigation that bridges top-down institutional perspectives with bottom-up civic realities. Ultimately, the 'post-digital' turn in European public institutional communication demands more than technical adaptation; it calls for political imagination.

Ensuring that AI tools enhance rather than undermine public trust, institutional credibility and democratic deliberation requires sustained, dialogic collaboration among institutions, civil society and citizens. A balanced approach that combines regulatory robustness with participatory experimentation will be vital to navigating this evolving landscape and shaping an EPS that is inclusive, responsive and resilient in the face of technological acceleration.

From a policy standpoint, the findings underscore the need for the European Union to move beyond reactive regulatory strategies and toward integrated governance frameworks that actively shape the normative infrastructure of post-digital communication. This includes embedding algorithmic transparency, data ethics and participatory safeguards into the design of AI-mediated communication systems.

Particular attention should be paid to ensuring equitable access, preventing the marginalization of digitally peripheral populations and fostering deliberative feedback loops that translate citizen input into institutional responsiveness.

Future research should expand the comparative dimension, examining how different EU member states adapt post-digital communication strategies to their national contexts and assessing the long-term effects of AI integration on citizen trust, democratic legitimacy and political socialization across generational cohorts. Longitudinal and mixed-methods studies will be essential to understanding how evolving technological infrastructures reconfigure the epistemology and structure of the European public sphere over time.

References

Auel, K., & Tiemann, G. (2020). Europeanising European public spheres. European Parliament, Directorate-General for Internal Policies of the Union. https://data.europa.eu/doi/10.2861/912636

Belluati, M. (2021). The European institutions and their communication deficits. In J. L. Newell (Ed.), *Europe and the left: Resisting the populist tide,* (pp. 73-91). Palgrave Macmilan.

Brall, C., Schröder-Bäck, P., Porz, R., Tahzib, F., & Brand, H. (2019). Ethics, health policy-making and the economic crisis: a qualitative interview study with European policy-makers. *International journal for equity in health*, *18*, 144. https://doi.org/10.1186/s12939-019-1050-y

Chiarella, M. L. (2023). Digital markets act (DMA) and digital services act (DSA): New rules for the EU digital environment. *Athens JL, 9*(33), 33-58. https://dx.doi.org/10.30958/ajl.9-1-2

Conrad, M., Hálfdanarson, G., Michailidou, A., Galpin, C., & Pyrhönen, N. (2023). *Europe in the age of post-truth politics: Populism, disinformation and the public sphere*. Springer Nature.

Corbetta, P. (2003). *Social research: Theory, methods and techniques.* Sage.

D'Ambrosi, L. (2019). *La comunicazione pubblica dell'Europa*. Carocci editore.

Dumančić, K. (2021). The EU Regulatory Activities in the Area of Digital Platforms and Services Provision. *EU and Comparative Law Issues and Challenges Series (ECLIC), 5*, 688-705. https://doi.org/10.25234/eclic/18347

Dumoulin, M., & Bitsch, M.-T. (2007). *La Commissione europea: 1958-1972: Storia e memorie di un'istituzione*. EUR-OP.

Floridi, L. (2021). The European legislation on AI: A brief analysis of its philosophical approach. *Philosophy & Technology*, *34*(2), 215-222. https://doi.org/10.1007/s13347-021-00460-9

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Aldine Publishing.

Hays, D. G., & McKibben, W. B. (2021). Promoting rigorous research: Generalizability and qualitative research. *Journal of Counseling & Development*, *99*(2), 178-188. https://doi.org/10.1002/jcad.12365

Habermas, J. (1991). The public sphere. In C. Mukerji & M. Schudson (Eds.), *Rethinking popular culture: Contemporary perspectives in cultural studies* (pp. 398-404). University of California Press.

Habermas, J. (1992). *The structural transformation of the public sphere*. Polity Press.

Habermas, J. (2023). *A new structural transformation of the public sphere and deliberative politics*. John Wiley & Sons.

Hennen, L. (2020). E-Democracy and the European public sphere. In L. Hennen, I. Van Keulen, I. Korthagenm G. Aichholzer, R. Lindner, & R. Ø. Nielsen. (Eds.),. *European e-democracy in practice* (pp .47-91). Springer Nature.

Herzog, C., & Ali, C. (2015). Elite interviewing in media and communications policy research. *International Journal of Media & Cultural Politics, 11*(1), 37-54. https://doi.org/10.1386/macp.11.1.37_1

Hooghe, L. & Marks, G.(2009). A Postfunctionalist Theory of European Integration: From Permissive Consensus to Constraining Dissensus. *British Journal of Political Science*, *39*(1), 1-23. https://doi.org/10.1017/S0007 123408000409

Kalėda, S. L. (2023). New European Union's Regulatory Framework of the Digital Space. *Teisė, 127*, 25-42. https://doi.org/10.15388/Teise.2023.127.2

Kitsara, I. (2022). Artificial intelligence and the digital divide: From an innovation perspective. In A. Bounfour, (Ed.), *Platforms and artificial intelligence: The next generation of competences* (pp. 245-265). Springer International Publishing.

López-García, G., Gámir-Ríos, J. V., García-Ull, F. J., Llorca-Abad, G., Cano-Orón, L., & González-Esteban, J.-L. (2015). El debate sobre Europa en Twitter. Discursos y estrategias de los candidatos de las elecciones al Parlamento Europeo de 2014 en España. *Revista de estudios politicos*, *170*, 213-246. https://doi.org/10.1 8042/cepc/rep.170.07

Lovari, A., & Belluati, M. (2023). We Are All Europeans. EU Institutions Facing the Covid-19 Pandemic and Information Crisis. In La G. Rocca, M. E. Carignan & G. B. Artier, (Eds.), *Infodemic Disorder: Covid-19 Coping Strategies in Europe, Canada and Mexico,* (pp. 65-96). Springer International Publishing.

Ng, D. T. K., Leung, J. K. L., Chu, S. K. W., & Qiao, M. S. (2021). Conceptualizing AI literacy: An exploratory review. *Computers and Education: Artificial Intelligence*, *2*. https://doi.org/10.1016/j.caeai.2021.100041

Parito, M. (2012). *Comunicare l'Unione Europea per coinvolgere i cittadini. La costruzione della visibilità sociale di un progetto in divenire*. Franco Angeli.

Pasquino, G. (2002). The democratic legitimation of European institutions. *The International Spectator*, *37*(4), 35-48. https://doi.org/10.1080/03932720208457000

Radaelli, C. M. (2017). Technocracy and European Union public policy making. *Technocracy in the European Union*, 30-53. Routledge.

Rivas-de-Roca, R., & García-Gordillo, M. (2022). Understanding the European Public Sphere: a review of pending challenges in research. *European politics and society*, *23*(3), 380-394. https://doi.org/10.1080/23745118. 2021.1884965

Seeliger, M., & Sevignani, S. (2022). A new structural transformation of the public sphere? An introduction. *Theory, Culture & Society*, *39*(4), 3-16. https://doi.org/10.1177/02632764221109439

Smillie L., & Scharfbillig M. (2024). Trustworthy Public Communications. *Publications Office of the European Union*. Available at: https://data.europa.eu/doi/10.2760/695605

Trenz, H.-J. (2002). Zur Konstitution politischer Öffentlichkeit in der Europäischen Union. Zivilgesellschaftliche Subpolitik oder schaupolitische Inszenierung. Baden-Baden.

Trenz, H.-J. (2007). Measuring Europeanisation of Public Communication. The Question of Standards. RECON Online Working Paper 2007/12.

Van Noordt, C., & Misuraca, G. (2022). Artificial intelligence for the public sector: results of landscaping the use of AI in government across the European Union. *Government Information Quarterly*, *39*(3), 101714 https://doi.org/10.1016/j.giq.2022.101714

Von Soest, C. (2023). Why do we speak to experts? Reviving the strength of the expert interview method. *Perspectives on Politic*s, *21*(1), 277-287. https://doi.org/10.1017/S1537592722001116

Zuboff, S. (2019). Surveillance capitalism and the challenge of collective action. *New labor forum*, *28*(1), 10-29. https://doi.org/10.1177/1095796018819461

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Conflict of interests

The author confirms having declared no conflict of interests.