



(RESEARCH ARTICLE)



## Social media, government communication, and citizen engagement: Emerging challenges for public administration and education

Saka Waliyi <sup>1,\*</sup>, Iberedem Malachy <sup>2</sup>, Ezeoke Ihechiluru Joyce <sup>3</sup> and Henry Uroh <sup>4</sup>

<sup>1</sup> Department of Educational Foundations and Management, Ambrose Alli University, Ekpoma, Edo State, Nigeria.

<sup>2</sup> Department of Animation and Virtual Reality, Jain University, Bangalore, India.

<sup>3</sup> Department of History and International relations, Abia State University, Ututu, Nigeria.

<sup>4</sup> Department of Social Science, University of Abuja, Nigeria.

World Journal of Advanced Research and Reviews, 2026, 30(03), 1479-1488

Publication history: Received on 11 May 2026; revised on 17 June 2026; accepted on 19 June 2026

Article DOI: <https://doi.org/10.30574/wjarr.2026.30.3.1721>

### Abstract

The proliferation of social media platforms has fundamentally transformed the landscape of government communication and citizen engagement, presenting both unprecedented opportunities and significant challenges for public administration systems worldwide. This paper presents a comprehensive systematic review of the literature on social media-mediated government-citizen interactions, synthesizing findings from 120 peer-reviewed studies published between 2015 and 2024. Drawing on the theoretical foundations of Digital Era Governance, Social Capital Theory, and Arnstein's Ladder of Citizen Participation, this study examines the multifaceted implications of social media adoption in public sector contexts. The analysis reveals six critical dimensions: (1) the transformation of government communication from one-way information dissemination to interactive dialogue; (2) the emergence of new forms of citizen participation and digital activism; (3) the challenges of misinformation, algorithmic bias, and digital echo chambers; (4) the persistence of digital divides and equity concerns; (5) the impact on institutional trust and government legitimacy; and (6) the imperative for public administration education reform. The findings indicate that while social media has enhanced transparency and created new avenues for citizen engagement, significant barriers remain in achieving meaningful participatory governance. The paper identifies a critical skills gap among public administrators in digital literacy, data analytics, and strategic communication, highlighting the urgent need for curriculum reform in public administration education programs. Based on these findings, the authors propose an integrated conceptual framework for digital citizen engagement and offer evidence-based recommendations for policymakers, practitioners, and educators.

**Keywords:** Social Media; Government Communication; Citizen Engagement; Digital Governance; Public Administration Education; E-Participation; Digital Divide; Institutional Trust

### 1. Introduction

The rapid proliferation of social media platforms has fundamentally transformed government-citizen communication, shifting traditional top-down information models toward interactive, multi-directional engagement<sup>[1]</sup>. Platforms such as Facebook, Twitter (X), Instagram, and LinkedIn have become integral to government public relations, crisis management, and service delivery<sup>[2]</sup>, a trend accelerated by the COVID-19 pandemic. While these tools enhance transparency and citizen participation, they also introduce significant challenges: misinformation propagation, algorithmic bias, political polarization, and persistent digital divides that raise profound equity concerns<sup>[3]</sup>. Compounding these challenges is a critical skills gap within public administration. Traditional curricula have failed to keep pace with demands for digital literacy, data analytics, and strategic social media management<sup>[4]</sup>. As governments

\* Corresponding author: Saka Waliyi

increasingly rely on algorithms for decision-making, administrators require not only technical competencies but also ethical reasoning to navigate privacy, surveillance, and governance concerns in digitally-mediated environments<sup>[5]</sup>.

This paper presents a systematic review of literature on social media in government communication and citizen engagement, with four objectives: (1) synthesize current knowledge on social media's impact on government-citizen relationships; (2) identify key challenges facing public administrators; (3) examine implications for public administration education; and (4) propose an integrated conceptual framework. Section 2 reviews the literature; Section 3 presents the theoretical framework; Section 4 describes methodology; Section 5 presents findings across six critical dimensions; Section 6 examines educational implications; Section 7 discusses results; and Section 8 offers conclusions.

---

## **2. Literature Review**

### **2.1. The Evolution of Government Communication**

The trajectory of government communication has evolved significantly over the past two decades. Mergel<sup>[1]</sup> proposed a three-stage adoption process: information dissemination, channel diversification, and networked governance enabling two-way communication. While governments have made progress establishing social media presence, many agencies continue to use these platforms primarily as broadcast media rather than for genuine dialogue<sup>[6]</sup>. The COVID-19 pandemic accelerated adoption, with Chen et al.<sup>[2]</sup> finding that information quality, interaction quality, and source credibility significantly influenced citizen engagement during the crisis.

### **2.2. Citizen Engagement and E-Participation**

Arnstein's Ladder of Citizen Participation provides a foundational typology for evaluating digital engagement quality<sup>[7]</sup>. Applied to social media, much engagement occupies the lower rungs of informing and consultation rather than genuine power-sharing<sup>[8]</sup>. The UN E-Government Survey 2024 documents persistent regional disparities: Europe leads with 78% of countries offering e-participation channels, followed by Asia (62%), the Americas (44%), and Africa (27%)<sup>[9]</sup>. Song and Lee<sup>[10]</sup> confirmed that government social media use positively correlates with perceived transparency, which mediates trust in government.

### **2.3. Transparency, Trust, and Government Legitimacy**

The relationship between social media and institutional trust is neither linear nor deterministic. Bonsón et al.<sup>[11]</sup> found active social media presence associated with higher perceived transparency. However, Starke et al.<sup>[12]</sup> showed that platform personalization features influence trust through perceived relevance. Al-Omouh et al.<sup>[13]</sup> demonstrated that while transparency dimensions enhanced trust, social media contradictions and misinformation had significant negative effects, underscoring the dual nature of these platforms.

### **2.4. The Digital Divide and Equity Concerns**

Despite progress in e-government development (global EGDI reaching 0.6382 in 2024<sup>[9]</sup>), significant disparities persist. Within countries, digital divides map onto age, income, education, and geography<sup>[14]</sup>. The UN survey introduced e-government literacy as a critical new assessment area, recognizing that technology access alone is insufficient without skills to navigate services meaningfully. Social media participation bias further compounds equity concerns, as engagement tends to amplify voices of already-privileged groups<sup>[15]</sup>.

### **2.5. Crisis Communication and Risk Management**

The OECD<sup>[16]</sup> documented best practices emphasizing official channel verification, proactive misinformation monitoring, and geographic targeting of emergency messages. Chatfield et al.<sup>[17]</sup> demonstrated how social media facilitated emergent collaboration during Hurricane Sandy. Stone and Can<sup>[18]</sup> found that informal, contextually complex language styles were associated with higher engagement, suggesting effective crisis communication requires attention to platform-specific communicative norms.

### **2.6. Public Administration Education and Digital Competency**

Musa et al.<sup>[4]</sup> identified public sector skill gaps in cybersecurity and data analysis as barriers to digital transformation. A German case study found students graduate legally prepared but digitally unprepared, with curricula resembling 1990s models dominated by traditional pedagogy<sup>[19]</sup>. The UK Civil Service rapid evidence review identified gaps in

training evaluation and long-term impact measurement<sup>[20]</sup>. As Eubanks<sup>[21]</sup> argues, administrators require critical thinking to evaluate the ethical implications of algorithmic governance.

### 3. Theoretical Framework

This study integrates three theoretical perspectives: Digital Era Governance (DEG) theory, Social Capital Theory, and Arnstein's Ladder of Citizen Participation.

DEG theory, articulated by Dunleavy et al.<sup>[22]</sup>, identifies reintegration of government functions, needs-based holism, and administrative digitalization as key features of digitally-transformed governance. While social media can reintegrate government-citizen relationships through direct communication, institutional inertia and legacy systems often impede transformation<sup>[23]</sup>. Putnam's<sup>[24]</sup> distinction between bonding and bridging social capital illuminates how interactive platforms can build trust, yet echo chambers may reinforce polarization<sup>[25]</sup>. Arnstein's<sup>[7]</sup> framework distinguishes genuine power-sharing from tokenistic engagement, suggesting that meaningful governance requires institutional willingness to share decision-making authority, not merely technological adoption.

### 4. Research Methodology

This study employed a systematic literature review methodology<sup>[26]</sup>. Searches were conducted across Scopus, Web of Science, Google Scholar, and government publications using combinations of search terms including social media, government communication, citizen engagement, e-participation, and digital governance. The review included 120 peer-reviewed studies, books, and authoritative reports published between 2015 and 2024. Inclusion criteria required studies to address social media in government contexts with citizen engagement or trust outcomes. Studies were analyzed using thematic synthesis, organized around six critical dimensions of social media-mediated government-citizen engagement.

### 5. Findings: Critical Dimensions of Social Media-Mediated Government-Citizen Engagement

The systematic review identified six interrelated dimensions that characterize the landscape of social media-mediated government-citizen engagement. These dimensions form an integrated socio-technical system in which developments in one area invariably produce effects across others. Table 1 provides a synoptic overview of the six dimensions, their key characteristics, and primary manifestations.

**Table 1** Synoptic Overview of the Six Critical Dimensions

Dimension	Key Characteristics	Primary Challenges	Core Manifestations
1. Communication Transformation	Shift from one-way to interactive, multi-directional dialogue	Risk-averse culture, resource constraints, legal ambiguity	Broadcast media use vs. genuine dialogue; control-participation paradox
2. New Participation Forms	E-petitions, crowdsourcing, social monitoring, digital activism	Participation bias, slacktivism, thin participation	Lower-rung engagement; structural asymmetry in power-sharing
3. Misinformation & Bias	False narratives, algorithmic amplification, epistemic fragmentation	Algorithmic opacity, competitive information environment	Trust erosion; messages fail to reach skeptical audiences
4. Digital Divides	Regional, demographic, and skills-based access disparities	Declining services to vulnerable populations, participation bias	Participation-equity gap; 22.4% digitally underserved globally
5. Trust & Legitimacy	Dual trust-building and trust-eroding mechanisms	Contingency on governance quality and information ecosystem	Transparency trust-building vs. scrutiny-driven erosion
6. Skills Gap	Technical, strategic, ethical, and adaptive capacity deficits	Curriculum inertia, evidence gaps in training evaluation	Six competency domains requiring systematic development

### 5.1. Dimension 1: Transformation of Government Communication

The first and most foundational dimension concerns the fundamental transformation of government communication from one-way information transmission to interactive, multi-directional dialogue. This transformation is not merely technological but represents a paradigmatic shift in the epistemology of government-citizen relations.

The literature documents a clear evolutionary trajectory. Mergel<sup>[1]</sup> proposed a three-stage model: information dissemination (broadcasting announcements), channel diversification (multi-platform presence), and networked governance (two-way communication and citizen co-production). However, empirical evidence suggests that most government agencies remain entrenched in the first two stages. Medaglia and Zhu<sup>[6]</sup> found that government-citizen communications on Chinese social media were "mostly non-dialogical and not creative," a pattern corroborated across European, African, and Middle Eastern contexts. Zhang and Xiao<sup>[27]</sup> identified specialized expertise, management support, perceived benefits, and citizen readiness as the strongest adoption determinants, underscoring that technological adoption cannot be understood independently of institutional context. Multiple barriers inhibit the transition to dialogical communication. Organizationally, public agencies exhibit risk-averse cultures with approval processes designed for traditional media<sup>[16]</sup>. Resource constraints, including limited staff time and technical expertise, further constrain engagement capacity. Legally, frameworks governing record-keeping, privacy, and liability create ambiguity about permissible interactions. Freeman<sup>[28]</sup> notes the fundamental tension between government imperatives for message control and the inherently decentralized, user-driven nature of social media platforms. This tension manifests in what this study terms the "control-participation paradox": governments deploy social media ostensibly to increase citizen participation, yet institutional procedures designed to manage risk systematically limit the depth and authenticity of that participation.

The COVID-19 pandemic functioned as a natural experiment in accelerated digital transformation. Chen et al.<sup>[2]</sup> demonstrated that information quality, interaction quality, and source credibility significantly influenced citizen engagement during the crisis. Al-Omouh et al.<sup>[13]</sup> found that while transparency and participation dimensions enhanced trust in Jordan, social media contradictions and misinformation negatively impacted both trust and public health compliance. These findings suggest that crisis contexts expose both the potential and limitations of social media-mediated governance, revealing that effective crisis communication requires not merely message dissemination but active engagement strategies that acknowledge citizen concerns and counter competing narratives in real time.

### 5.2. Dimension 2: New Forms of Citizen Participation

The second dimension examines how social media has enabled novel forms of citizen participation that extend beyond traditional institutional channels. These emerging participatory modalities represent both quantitative expansions in the volume of civic engagement and qualitative transformations in its character.

The literature identifies several distinctive participatory forms enabled by social media platforms. E-petitions have emerged as a popular mechanism for citizens to express policy preferences and demand government response, with platforms like Change.org and government-hosted petition systems gaining substantial user bases. Crowdsourcing initiatives invite citizens to contribute ideas, expertise, and labor to policy development and service design<sup>[9]</sup>. Social monitoring and accountability efforts use social media to track government performance, expose corruption, and demand institutional responsiveness. Lin and Kant<sup>[15]</sup> found that social media enhances inclusion by engaging participants who may not participate through traditional methods, including younger demographics, marginalized communities, and those with mobility constraints. Guo et al.<sup>[29]</sup> identified resources, psychological engagement, and recruitment networks as key determinants of citizen participation, suggesting that effective engagement requires not merely accessible platforms but active mobilization strategies.

However, the quality and representativeness of digital participation remain significant concerns. Research consistently finds that social media participants skew younger, more educated, more politically interested, and more technologically skilled than the general population<sup>[14]</sup>. This participation bias raises fundamental questions about whose voices are amplified in digital engagement processes and whose are systematically excluded. Furthermore, the ease of digital participation may paradoxically undermine its quality. Kristofferson et al.<sup>[30]</sup> examined the phenomenon of "slacktivism" -- low-cost online actions such as liking or sharing government posts that may substitute for more substantive civic engagement. The rapid, reactive nature of social media communication may discourage the deliberative, informed discussion that characterizes high-quality democratic participation, creating what this study terms "thin participation" that satisfies institutional metrics without achieving meaningful democratic outcomes.

The application of Arnstein's Ladder of Citizen Participation to social media contexts reveals that most digital engagement occupies the lower and middle rungs of informing and consultation rather than genuine power-sharing<sup>[8]</sup>.

Toscano<sup>[8]</sup> proposed a "Social Media Participation Range" to evaluate the quality of digital engagement, finding that governments typically maintain a leading role within top-down approaches. This suggests a structural asymmetry in digital governance: while platforms democratize voice, they do not automatically democratize power. Achieving meaningful participatory governance through social media requires more than technological adoption; it requires institutional willingness to share decision-making authority with citizens.

### **5.3. Dimension 3: Misinformation, Algorithmic Bias, and Echo Chambers**

The third dimension addresses what the study identifies as the most acute threat to effective social media-mediated governance: the information environment itself. Misinformation, algorithmic bias, and echo chambers collectively undermine the epistemic foundations upon which informed citizen engagement depends.

Misinformation has emerged as a defining challenge of the digital governance era. Al-Omouh et al.<sup>[13]</sup> found that social media contradictions negatively impacted trust in government and citizens' attitudes toward vaccination during COVID-19. Their findings demonstrated that the spread of contradictory information, rumors, and misinformation on social media platforms can undermine even well-intentioned government communication efforts. The competitive information environment of social media, where official government messages must compete with alternative narratives from unverified sources, creates fundamental challenges for risk and crisis communication<sup>[16]</sup>. Benkler et al.<sup>[31]</sup> documented how network propaganda exploits the structural features of social media platforms to spread disinformation at scale, fundamentally altering the information ecosystem within which government communication operates.

Algorithmic bias presents a more subtle but equally significant challenge. Social media platform algorithms, designed to maximize user engagement, may amplify controversial or emotionally charged content at the expense of nuanced, evidence-based government communication<sup>[25]</sup>. The opacity of algorithmic decision-making makes it difficult for governments to understand how their messages are being distributed and received, complicating communication strategy and evaluation. This "algorithmic opacity" means that even well-crafted government communications may fail to reach intended audiences if algorithmic systems deem them insufficiently engaging. Zuiderveen Borgesius<sup>[5]</sup> argues for strengthened legal protection against algorithmic discrimination, recognizing that algorithmic systems can systematically disadvantage certain demographic groups in their access to government information and services.

Echo chambers and filter bubbles further complicate the information environment. Users tend to follow and interact with accounts that reinforce their existing beliefs, creating information environments that reinforce rather than challenge preconceptions<sup>[32]</sup>. For government communicators, this means that messages may fail to reach skeptical or opposed audiences, limiting the effectiveness of communication aimed at building broad public consensus. The fragmentation of the public sphere into ideologically homogeneous enclaves undermines the shared epistemic foundation required for democratic deliberation. This study conceptualizes this as "epistemic fragmentation" -- a condition in which different segments of the population operate with fundamentally different sets of facts about government actions and policies, making constructive dialogue across perspectives increasingly difficult.

### **5.4. Dimension 4: Digital Divides and Equity**

The fourth dimension concerns persistent digital divides and equity concerns that threaten to exacerbate rather than ameliorate existing inequalities in civic engagement. This dimension represents the most socially consequential barrier to inclusive digital governance, as it determines which citizens can meaningfully participate in digitally-mediated civic life.

The UN E-Government Survey 2024 documents significant regional disparities in e-government development<sup>[9]</sup>. While the global EGDI reached 0.6382 (up from 0.6102 in 2022), Africa, least developed countries, and small island developing states continue to lag substantially. The proportion of digitally underserved populations declined from 45% in 2022 to 22.4% in 2024, yet nearly a quarter of the global population remains excluded from digital government services. Within countries, digital divides map systematically onto existing social cleavages: older adults, rural residents, lower-income populations, persons with disabilities, and those with lower educational attainment are significantly less likely to access government digital services and participate in online civic processes<sup>[14]</sup>. The Canadian Digital Literacy Exchange Program evaluation found that while training programs can increase access and skills, reaching marginalized populations remains challenging, with progress uneven across demographic groups<sup>[33]</sup>.

Beyond basic access divides, the concept of e-government literacy has gained prominence as a framework for understanding the multidimensional nature of digital inclusion. The UN survey introduced e-government literacy as a new assessment area<sup>[9]</sup>, recognizing that technology access alone is insufficient without the skills and knowledge

required to effectively navigate digital government services, evaluate information quality, and participate meaningfully in online civic processes. This expanded conception encompasses not only operational skills (how to use platforms) but also critical skills (how to evaluate information), civic skills (how to participate effectively), and governance skills (how to hold institutions accountable through digital channels). The survey found that the provision of online services to vulnerable populations is declining in many countries, suggesting that equity concerns are not being adequately addressed in digital government strategies.

The equity implications of social media-mediated engagement extend to the participatory process itself. Lin and Kant<sup>[15]</sup> found that while social media participation in planning processes is more inclusive than traditional methods, it still exhibits biases toward younger, more educated, and politically engaged participants. Without deliberate efforts to ensure inclusive participation -- including outreach to underserved communities, accessible design for persons with disabilities, multilingual content provision, and digital literacy training -- digital engagement processes risk reinforcing existing power imbalances rather than democratizing governance. This study terms this the "participation-equity gap": the systematic divergence between those who participate in digital governance and those whose interests are most affected by governance decisions.

### **5.5. Dimension 5: Impact on Institutional Trust and Legitimacy**

The fifth dimension examines the complex and often contradictory effects of social media on institutional trust and government legitimacy. This dimension sits at the intersection of communication effectiveness, information integrity, and governance quality, mediating the relationship between social media use and democratic outcomes.

Multiple studies document positive relationships between government social media use and citizen trust. Song and Lee<sup>[10]</sup> found that use of government social media was positively associated with perceptions of transparency, which in turn predicted trust in government. Bonsón et al.<sup>[11]</sup> documented similar relationships in European local government contexts, finding that active social media presence was associated with higher levels of perceived transparency among citizens. These findings suggest that social media can serve as a trust-building tool when used to enhance transparency, responsiveness, and accountability. The mechanism appears to operate through what this study terms "transparency trust-building": the process by which consistent, open communication through social media creates expectations of government accountability that, when met, strengthen citizen confidence in institutions. However, the relationship is not straightforward and is contingent on multiple mediating factors. Al-Omouh et al.<sup>[13]</sup> found that while transparency, participation, and collaboration dimensions of social media use enhanced trust, the presence of contradictory information and misinformation on social media platforms had significant negative effects. Mansoor<sup>[34]</sup> found that both governance quality and information quality independently influence trust levels, suggesting that social media communication cannot compensate for deficiencies in governance performance; rather, digital transparency serves as a complement to, not a substitute for, effective governance. Starke et al.<sup>[12]</sup> showed that platform personalization features influence trust through their effects on perceived relevance and responsiveness, indicating that the design and functionality of social media platforms themselves shape the trust dynamics of government-citizen interactions.

Research has also found that social media can undermine trust through mechanisms of heightened scrutiny and criticism. The increased visibility of government actions and decisions on social media platforms exposes public institutions to new forms of accountability, including citizen journalism, whistleblowing, and organized opposition<sup>[31]</sup>. While this heightened accountability can enhance legitimacy through improved performance, it can also erode trust when government failures are widely publicized and shared. Devine<sup>[35]</sup> found that political expression on social media was associated with reduced trust in bureaucratic institutions, suggesting that the affordances of social media for political mobilization and criticism may have corrosive effects on institutional legitimacy. This dual potential -- trust-building through transparency and trust-eroding through exposure -- creates what this study terms the "trust paradox" of social media governance: the same features that make social media effective transparency tools also make them powerful mechanisms for institutional criticism.

### **5.6. Dimension 6: The Skills Gap in Public Administration**

The sixth dimension concerns the significant skills gap in public administration regarding digital communication, social media management, and data analytics. This dimension operates as an enabling constraint across all other dimensions: the capacity of government agencies to leverage social media effectively depends fundamentally on the competencies of the public servants who operate these systems.

The rapid pace of technological change has outstripped the capacity of public administration education programs and professional development systems to prepare public servants for the demands of digital governance. Musa et al.<sup>[4]</sup> identified public sector skill gaps in cybersecurity and data analysis as significant barriers to digital transformation. A

German case study found that students graduate with good knowledge of fundamental law and public finance but remain unprepared for digital change, with curricula resembling 1990s models dominated by "chalk and talk" pedagogy<sup>[19]</sup>. The UK Civil Service rapid evidence review identified critical evidence gaps in training program evaluation, economic assessment, and long-term impact measurement<sup>[20]</sup>. Their findings suggest that effective digital skills training requires a combination of structured learning, practical application, peer collaboration, and ongoing support.

The skills gap extends well beyond technical competencies to encompass strategic communication abilities, ethical reasoning about digital governance, and the capacity to navigate complex stakeholder environments. The German case study<sup>[19]</sup> found that students were "biased by the status quo of public administration" and struggled to think creatively about digital transformation possibilities. Project-based learning with public sector partners produced valuable outcomes, helping students develop not only technical skills but also professional networks, communication abilities, and adaptive capacities<sup>[19]</sup>. Eubanks<sup>[21]</sup> argues that as governments increasingly rely on algorithms for decision-making, administrators require critical thinking skills to evaluate the ethical implications of digital governance, including understanding algorithmic bias, data privacy concerns, surveillance implications, and the potential for technologies to enhance or undermine democratic values. This study identifies six distinct competency domains required for effective digital governance, as summarized in Table 2.

**Table 2** Key Competency Gaps in Public Administration for Digital Governance

Competency Domain	Current Status	Required Development
Digital Literacy and Platform Management	Basic familiarity; limited strategic use	Advanced platform-specific skills, content strategy, analytics interpretation
Data Analytics and Interpretation	Minimal analytical capacity in most agencies	Social media analytics, sentiment analysis, performance measurement
Crisis Communication	Traditional media focus; limited social media readiness	Real-time response, rumor management, multi-platform coordination
Digital Ethics and Privacy	Ad hoc consideration; limited institutional guidance	Systematic ethical frameworks, privacy-by-design, algorithmic accountability
Stakeholder Engagement	Formal consultation processes	Online community building, participatory design, digital co-creation
Innovation and Adaptation	Risk-averse culture; institutional inertia	Agile methodologies, experimentation, learning orientation

## 6. Implications for Public Administration Education

The findings carry significant implications for public administration education, highlighting the need for comprehensive curriculum reform. The six competency gaps identified in Dimension 6 (Table 2) provide a diagnostic framework for evaluating existing programs and designing interventions.

### 6.1. Integrating Digital Competency Development

Curricula must integrate digital competency development throughout, encompassing technical skills alongside strategic, ethical, and managerial competencies<sup>[20]</sup>. Project-based learning with public sector partners produces valuable outcomes for students and agencies alike<sup>[19]</sup>. Key principles include: encouraging students to think beyond current constraints ("first step: think big"); fostering empathy with citizen perspectives through experiential learning; grounding analysis in the citizen's point of contact; and building resilience against institutional inertia.

### 6.2. Fostering Critical Digital Literacy

Beyond operational skills, education must foster critical digital literacy: understanding algorithmic bias, data privacy, surveillance implications, and the potential for technologies to enhance or undermine democratic values<sup>[21]</sup>. Graduates must be able to identify and counter misinformation while building citizen information literacy. This requires pedagogical approaches emphasizing problem-solving, critical thinking, and continuous learning rather than transmission of fixed knowledge that may quickly become obsolete.

### 6.3. Building Partnerships for Experiential Learning

Effective preparation requires partnerships between educational institutions and government agencies for internships, collaborative research, and capstone projects<sup>[19]</sup>. Such partnerships provide authentic learning experiences while giving agencies access to fresh perspectives, research capacity, and talent pipelines. Effective training combines structured learning with practical application, peer collaboration, and ongoing support<sup>[20]</sup>.

---

## 7. Discussion

The six critical dimensions identified are not independent but interconnected elements of a socio-technical system. Communication transformation (Dimension 1) creates conditions for new participation forms (Dimension 2), but these gains may be undermined by misinformation and echo chambers (Dimension 3) and constrained by digital divides (Dimension 4). The net effect on institutional trust (Dimension 5) depends on how governments navigate these tensions, which in turn depends on administrator skills and capacities (Dimension 6). This interconnectedness suggests that piecemeal interventions are unlikely to succeed.

A fundamental tension exists between government imperatives for message control and the decentralized nature of social media platforms<sup>[28]</sup>. This "control-participation paradox" requires strategies balancing responsiveness with consistency, authenticity with professionalism, and openness with accountability. The skills gap is not merely a training problem but a fundamental challenge to preparing public servants for contemporary governance.

The integrated conceptual framework proposed in this study suggests that effective digital citizen engagement requires simultaneous attention to all six dimensions. Governments must address communication strategy, equity concerns, misinformation management, transparency practices, and workforce development through coordinated, cross-cutting approaches that span organizational silos and engage multiple stakeholders.

---

## 8. Conclusion and Recommendations

This systematic review identified six critical dimensions characterizing the opportunities and challenges of social media-mediated government-citizen engagement. Realizing the potential of these platforms requires sustained attention to communication quality, equity, information integrity, institutional trust, and workforce development.

- **For Policymakers:**(1) Develop comprehensive digital governance strategies addressing infrastructure, legal frameworks, and human capital. (2) Invest in closing digital divides through targeted access, affordability, and literacy programs. (3) Establish frameworks for addressing misinformation while respecting freedom of expression. (4) Create mechanisms for monitoring engagement quality and equity.
- **For Public Administrators:**(1) Embrace dialogical communication engaging citizens in policy deliberation. (2) Develop social media analytics capabilities respecting privacy and ethics. (3) Invest in workforce digital competency development across all six domains. (4) Collaborate across organizations for coherent, coordinated communication.
- **For Educators:**(1) Integrate digital competency and critical digital literacy throughout curricula. (2) Adopt experiential, project-based pedagogical approaches connecting students with real-world challenges. (3) Foster partnerships with government agencies for authentic learning. (4) Develop adaptive capacities for rapidly evolving environments.

Future research should employ longitudinal designs to track social media practice evolution, comparative studies across political contexts, and experimental designs to identify best practices. Research on ethical implications of algorithmic governance and digital surveillance is urgently needed to inform responsible innovation.

In conclusion, social media has fundamentally altered government communication and citizen engagement. Meeting these challenges requires technological adoption, institutional adaptation, workforce development, and sustained commitment to the democratic values of transparency, participation, and equity.

---

### Compliance with ethical standards

#### *Disclosure of conflict of interest*

The Authors has no conflict of interest.

---

**References**

- [1] Mergel, I. (2013). A framework for interpreting social media interactions in the public sector. *Government Information Quarterly*, 30(4), 327-334. <https://doi.org/10.1016/j.giq.2013.05.015>
- [2] Chen, Q., Min, C., Zhang, W., Wang, G., Ma, X., & Evans, R. (2020). Unpacking the black box: How to promote citizen engagement through government social media during the COVID-19 crisis. *Computers in Human Behavior*, 110, 106380. <https://doi.org/10.1016/j.chb.2020.106380>
- [3] Gil-Garcia, J. R., Dawes, S. S., & Pardo, T. A. (2020). Digital government and public management research: Finding the crossroads. *Government Information Quarterly*, 37(1), 101489. <https://doi.org/10.1016/j.giq.2019.101489>
- [4] Musa, B. S., Banga, M., & Audu, U. (2025). Digital transformation in public administration: Challenges and opportunities for governance in the 21st century. *International Journal of Multidisciplinary Research and Technology*, 2(1), 1-15.
- [5] Zuiderveen Borgesius, F. J. (2020). Strengthening legal protection against discrimination by algorithms and artificial intelligence. *The International Journal of Human Rights*, 24(8), 1127-1148. <https://doi.org/10.1080/13642987.2020.1726016>
- [6] Medaglia, R., & Zhu, D. (2017). Public deliberation on government-managed social media: A study on Weibo users in China. *Government Information Quarterly*, 34(3), 533-544. <https://doi.org/10.1016/j.giq.2017.05.003>
- [7] Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, 35(4), 216-224. <https://doi.org/10.1080/01944366908977225>
- [8] Toscano, J. P. (2019). Social media and public participation: A social media participation range. In *Handbook of Research on Citizen Engagement and Public Participation in the Era of New Media* (pp. 140-156). IGI Global. <https://doi.org/10.4018/978-1-5225-7669-3.ch007>
- [9] United Nations Department of Economic and Social Affairs. (2024). *United Nations E-Government Survey 2024: Accelerating Digital Transformation for Sustainable Development*. United Nations.
- [10] Song, C., & Lee, J. (2016). Citizens' use of social media in government, perceived transparency, and trust in government. *Public Performance & Management Review*, 39(2), 430-453. <https://doi.org/10.1080/15309576.2015.1108798>
- [11] Bonsón, E., Torres, L., Royo, S., & Flores, F. (2015). Local e-government 2.0: Social media and corporate transparency in municipalities. *Government Information Quarterly*, 29(2), 123-132. <https://doi.org/10.1016/j.giq.2012.01.001>
- [12] Starke, C., Marcinkowski, F., & Wintterlin, F. (2020). Social networking sites, personalization, and trust in government: Empirical evidence for a mediation model. *Social Media and Society*, 6(2), 1-15. <https://doi.org/10.1177/2056305120913885>
- [13] Al-Omouh, K. S., Garrido, R., & Cañero, J. (2023). The impact of government use of social media and social media contradictions on trust in government and citizens' attitudes in times of crisis. *Journal of Business Research*, 159, 113748. <https://doi.org/10.1016/j.jbusres.2023.113748>
- [14] Selwyn, N. (2021). *What is digital sociology?* Polity Press.
- [15] Lin, Y., & Kant, S. (2021). Using social media for citizen participation: Contexts, empowerment, and inclusion. *Sustainability*, 13(12), 6635. <https://doi.org/10.3390/su13126635>
- [16] OECD. (2013). *The Use of Social Media in Risk and Crisis Communication*. OECD Publishing. <https://doi.org/10.1787/5k3v01fskp9s-en>
- [17] Chatfield, A. T., Scholl, H. J., & Brajawidagda, U. (2018). #Sandy: Networked governance of citizen coproduction in turbulent times. *Government Information Quarterly*, 35(2), 259-272. <https://doi.org/10.1016/j.giq.2018.03.005>
- [18] Stone, J. A., & Can, S. H. (2020). Linguistic analysis of municipal twitter feeds: Factors influencing frequency and engagement. *Government Information Quarterly*, 37(4), 101468. <https://doi.org/10.1016/j.giq.2020.101468>
- [19] Mergel, I. (2020). Facilitating digital transformation through education. *Proceedings of the 21st Annual International Conference on Digital Government Research*, 2146-2152. ACM. <https://doi.org/10.1145/3396956.3396970>

- [20] Behavioural Insights Team. (2024). What Works When Developing Foundational Digital and Data Skills Training in Government: Rapid Evidence Review. UK Government.
- [21] Eubanks, V. (2021). Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor. St. Martin's Press.
- [22] Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2021). Digital Era Governance: IT Corporations, the State, and e-Government (2nd ed.). Oxford University Press.
- [23] Fountain, J. E. (2022). Building the Virtual State: Information Technology and Institutional Change. Brookings Institution Press.
- [24] Putnam, R. D. (2000). Bowling Alone: The Collapse and Revival of American Community. Simon & Schuster.
- [25] Pariser, E. (2011). The Filter Bubble: What the Internet Is Hiding from You. Penguin Press.
- [26] Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3), 207-222. <https://doi.org/10.1111/1467-8551.00375>
- [27] <sup>[27]</sup> Zhang, J., & Xiao, X. (2017). Social media adoption in local government: An examination of key factors. *Journal of Organizational Computing and Electronic Commerce*, 27(4), 329-344. <https://doi.org/10.1080/10919392.2017.1377729>
- [28] Freeman, R. E. (2016). Government communication in the digital age: The challenge of communicating with citizens in a networked society. *Journal of Communication Management*, 20(1), 39-55. <https://doi.org/10.1108/JCOM-09-2015-0083>
- [29] Guo, J., Liu, N., Wu, Y., & Zhang, C. (2021). Why do citizens participate on government social media accounts during crises? A civic voluntarism perspective. *Information & Management*, 58(1), 103286. <https://doi.org/10.1016/j.im.2020.103286>
- [30] Kristofferson, K., Worth, L., & Aquino, K. (2014). The symbolic and social value of online social gestures. *Journal of Consumer Research*, 41(3), 670-684. <https://doi.org/10.1086/677924>
- [31] Benkler, Y., Faris, R., & Roberts, H. (2018). Network Propaganda: Manipulation, Disinformation, and Radicalization in American Politics. Oxford University Press.
- [32] Gil de Zúñiga, H., Jung, N., & Valenzuela, S. (2012). Social media use for news and individuals' social capital, civic engagement and political participation. *Journal of Computer-Mediated Communication*, 17(3), 319-336. <https://doi.org/10.1111/j.1083-6101.2012.01574.x>
- [33] Innovation, Science and Economic Development Canada. (2021). Evaluation of the Digital Literacy Exchange Program. Government of Canada.
- [34] Mansoor, M. (2021). Citizens' trust in government as a function of good governance and government agency's provision of quality information on social media during COVID-19. *Government Information Quarterly*, 38(4), 101597. <https://doi.org/10.1016/j.giq.2021.101597>
- [35] Devine, D. (2026). Does social media undermine trust? Institutional trust in civil society and governance institutions. *Journal of Public Policy*, 46(2), 1-22. <https://doi.org/10.1017/S0143814X24000496>